Youth Reformation System:
Part III - Program Evaluation Continuum (PEC) Model

The Oregon Youth Authority's (OYA) Youth Reformation System (YRS) is comprised of four components:

1) Population Forecast
2) Placement and Treatment
3) Program Evaluation Continuum
4) Community Context

This paper will focus on the Program Evaluation Continuum (PEC) and aims to provide an overview of the model, the history and rationale for creating a comprehensive approach to juvenile justice program evaluation, and considerations and implications for implementation.

Historical Background

The Oregon Youth Authority (OYA) is familiar with examining the performance of its correctional programs. In 2003, the Oregon legislature passed a mandate (ORS 182.525, formerly SB 267) requiring five state agencies, whose primary purpose was to reduce recidivism or decrease the need for emergency mental health services, to certify each treatment program as evidence-based. The 2003 state mandate directs five state agencies to implement, develop and maintain the use of treatment funds on evidence-based programming. In the 2005-2007 biennium these government agencies were required to show a minimum of 25% of their treatment expenditures were allocated to evidence-based services; in 2007-2009 50% of their treatment expenditures were deemed evidence-based; and in the 2009-2011 biennium agencies were expected to attain a 75% threshold of treatment dollars shown to be evidence-based. Currently, agencies are expected to meet or exceed the 75% benchmark for treatment expenditures identified as evidence-based. Each of the five agencies affected by ORS 182.525 are required to report on agency success every two years.

ORS 182.525 provides a vision for high level performance, promotes the reduction of recidivism, minimizes the impact of crime on victims, and engages local communities throughout the state. A number of questions and subsequent challenges surfaced during implementation of the state mandate, including, "What qualifies as 'treatment money' in juvenile corrections and how do you *measure* the quality of services?" OYA's initial steps involved adopting the Principles of Effective Correctional Intervention as our theoretical approach. In order to determine how well OYA programs were adhering to these "Principles" (i.e. known program components that research suggests are associated with effective programs in terms of reducing recidivism), OYA and the Oregon Department of Corrections (DOC) selected the Correctional Program Assessment Inventory tool by Gendreau and Andrews (CPAI; * CITATION NEEDED). The CPAI later evolved into the Correctional Program Checklist (CPC; Latessa* CITATION NEEDED), after national research analyses associated normed and validated the instrument. Since 2005, OYA has used the CPC instrument to assess the performance of its close custody facility units and contracted community residential programs. The CPC measures the degree to which effective correctional treatment practices are instilled in programs. Formal agency protocols have provided structured guidelines regarding the frequency of CPC reviews, team composition, inter-rater reliability scoring meetings, and other key elements necessary to ensure data quality and integrity of the on-site review process. To date, OYA has evaluated all of its close custody living units and community residential programs several times. This CPC data will be instrumental with the "Integrity and Expected Capability" component of the PEC model (to be described in much greater detail later in this paper).

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While the information from the CPC is useful in documenting compliance with the Oregon state statute and providing a road map for program improvements, relying solely on the CPC to generate a comprehensive picture of program effectiveness is myopic. The CPC instrument provides a mechanism to assess how well programs are *expected* to perform (i.e. reducing recidivism). And while the CPC measures program integrity, it does not quantify *actual* program effectiveness. Without additional PEC components and outcome metrics to supplement a CPC score, fundamental questions remain unanswered: "Did those programs which scored 'Highly Effective' or 'Effective' on the CPC actually present better outcomes for Oregon youth (i.e. did fewer number of youth recidivate)? Are there other key factors that influence a program's overall performance? What other measures indicate program success beyond recidivism?" This series of questions suggested the need for more comprehensive program evaluation to ensure continuous program improvements and to ensure OYA's programs were actually benefiting youth. Consequently, the concept of a Program Evaluation Continuum (PEC) was created. Over the past 18 months eight subcommittees comprised of OYA staff and stakeholders have convened to fully conceptualize the details of the PEC model. The subsequent narrative describes the work of these committees.

Purpose/Rationale

State governments have been significantly impacted by monumental budget cuts which have resulted in extremely limited resources. The data driven PEC can create efficiencies and ensure resources are used effectively. The PEC provides ongoing feedback to program leadership on program performance, allowing programs to improve their services and ultimately, reduce recidivism.

PEC represents a comprehensive picture of program effectiveness. There are three main principles that guide this evaluation model:

- Rapid response to emerging issues (being proactive rather than crisis driven);
- Data-informed decision-making; and
- Efficient resource allocation

Current evaluations require years of service before adequate number of participants can determine effectiveness. This requisite two or three years of services coupled with sufficient time period to have the "opportunity" to recidivate ensures programs exist for a minimum of five years before effectiveness can be determined. Using this evaluation method, if programs delivering ineffective services are given an opportunity to improve, the period of experimentation could last ten years before ineffective programs are terminated. Clearly, this evaluation methodology is inadequate. New research techniques coupled with technology improvements can provide immediate and continuous results to program providers and administrators. In this way, the PEC allows programs to rapidly respond to changing issues and client populations if necessary, based on performance data.

In addition to providing immediate results and having the ability to be nimble, the PEC must provide real-time data to programs and program administrators (i.e., contracted community-based residential program directors and close-custody facility managers). Data on specific indicators should alert programs when outcomes are declining or not meeting the desired threshold. Identifying a declining outcome should be coupled with tools that allow program administrators to uncover root causes and make improvements.

This consistent feedback allows programs to "course correct" immediately after early idenfication of issues.
The PECs ability to provide immediate feedback on key performance indicators is a crucial enhancement to the traditional systems that measure program success. The PECs ability to provide recidivism information on a regular basis (i.e. monthly) ensures programs can make program improvements using data. The comprehensive PEC framework also includes other "success" indicators such as the optimal length of stay for individual programs. Using a number of data sources to provide a comprehensive picture of program performance allows programs to make informed decisions and allocate resources towards targeted improvements.

Model Benefits

The PEC model provides ongoing data to programs that translates into improved program performance and youth success. Achieving the ideal state by fully implementing the PEC would:

- Allow OYA to quantify the effects of different program types (e.g. alcohol/drug, cognitive-behavioral, etc.), thereby recognizing the changes to the youth associated with programming/treatment;
- Enable researchers to recognize the effects of combining services;
- Ensure the lowest recidivism rates even during periods of changing resources;
- Allow OYA to most efficiently use its limited resources and appropriately allocate resources based on youth needs and outcome data;
- Quantify the subsequent public costs attributable to reduced programming resources (cost-benefit estimates for each program); and
- Identify the youth most likely to succeed in each program and identify youth populations poorly served by existing programs/services.

Model Overview

As briefly described in the previous section, the Program Evaluation Continuum provides a comprehensive assessment of program effectiveness. The continuum model is comprised of five key components, each with several subcomponents. Each of these subcomponents are supported by research and/or literature showing these factors are correlated with a likelihood of reducing recidivism. It is important to note, the individual PEC components or subcomponents do not provide a complete picture of program performance. Rather, it is through the interplay of these various components that generates the true value and utility of this model. The subsequent sections of this paper will explore the various pieces of the PEC in greater detail.

The PEC is comprised of five main components:

1) Program Integrity and Expected Capability;
2) Treatment Progress – Knowledge and Skills;
3) Outcome Data;
4) Services Match; and
5) Cost Effectiveness/Cost Avoidance.

Data from each of the individual PEC components will be monitored regularly to provide ongoing feedback to programs (i.e. close custody facility living units and contracted community residential programs). In so doing, programs will maximize their ability to readily identify areas for improvement, determine root causes of issues, and be able to devise and implement effective strategies to remedy problems contributing to decreased program effectiveness. The third PEC component, "Outcome Data" is considered the "pulse" of the model and includes program "effect size" for positive youth outcomes and recidivism. This "Outcome" data component includes higher-level juvenile justice agency outcomes and allows programs to immediately respond when outcomes are diminishing. More specifically, when the "Outcome" data component suggests program effectiveness is declining (i.e. increased recidivism rates and/or decreased positive youth outcomes), programs can use data from the other PEC components to determine the root cause of the decline. This allows programs to rapidly address the underlying issue for poor program performance, rather than experimenting with program changes. Because the "Outcome" data component is the indicator that triggers an investigation of the root cause of program ineffectiveness, this "pulse" will be monitored frequently (a minimum of quarterly). The figure below provides a pictorial representation of the model's five main components.

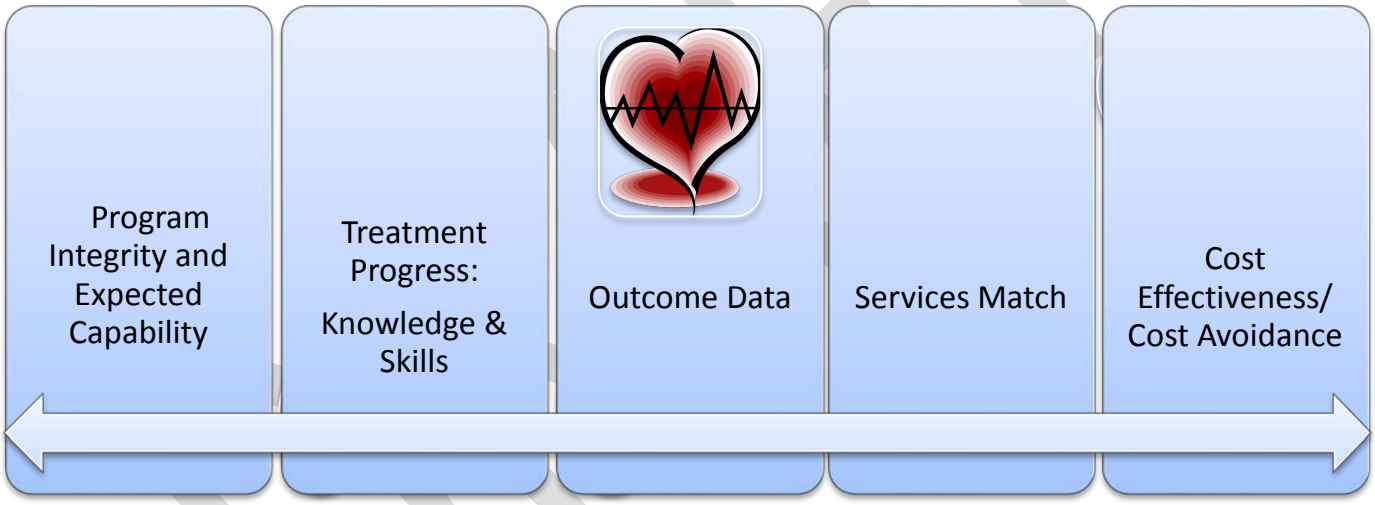


Figure 2. The five PEC model components.

PEC Model Subcomponents

As described earlier, each of the five PEC components are broken down into several essential subcomponents or categories. Each of these various subcomponents plays a vital role in determining overall program effectiveness. The following sections provide a detailed description of each of the PEC components.

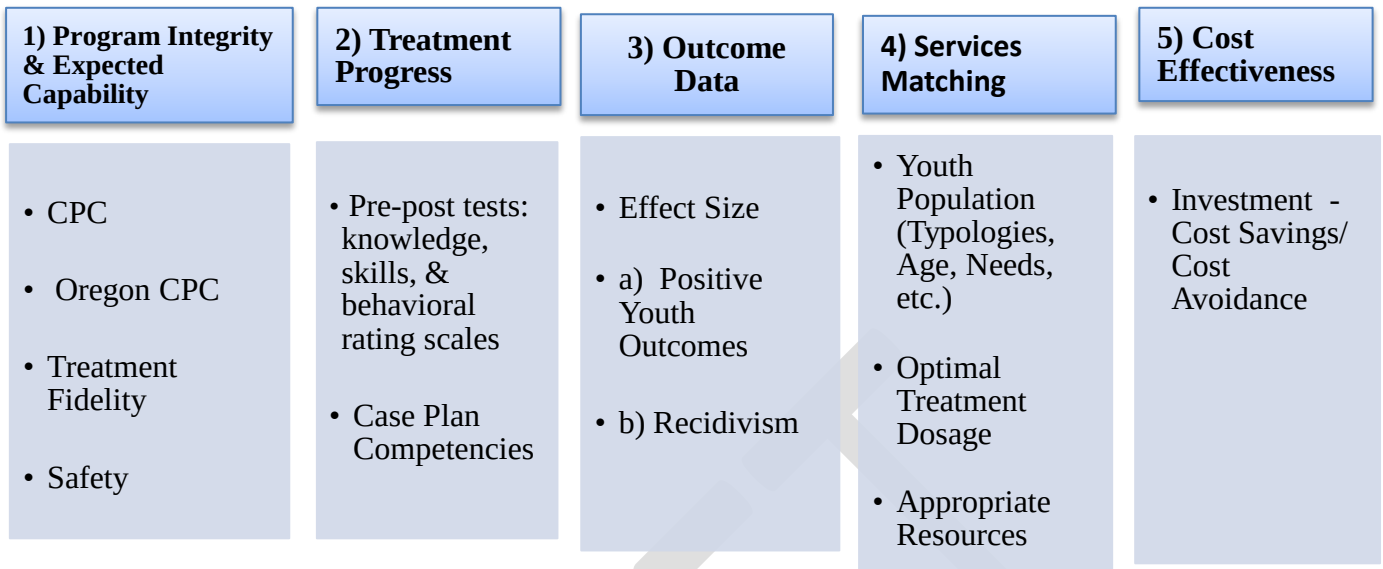


Figure 3. The PEC model's subcomponents

1) PROGRAM INTEGRITY AND EXPECTED CAPABILITY

a) Correctional Program Checklist (CPC)

Data provided to: ***Program***

The CPC was developed by Dr. Ed Latessa from the University of Cincinnati and represents the sequel to the Correctional Program Assessment Inventory (CPAI) created by Gendreau and Andrews (***CITATION YEAR); The CPC instrument measures a program's level of adherence to the "Principles of Effective Correctional Intervention" – those program characteristics that are highly correlated with a reduction in recidivism. These principles are based on a meta-analysis of hundreds of research studies conducted over several decades. More specifically, the CPC instrument relies on the Risk, Need, and Treatment principles, which serves as the bedrock for the Principles of Effective Correctional Intervention. Some components of this principle include:

- Measuring offender's risk to reoffend using standardized and validated risk and need tools;
- Using formal risk and need information to appropriately place youth (not mixing low and high risk offenders);
- Creating comprehensive case plans to address criminogenic risk and need factors;
- Using cognitive behavioral and social learning approaches to treatment;
- Practicing new skills through role playing exercises applied to real life situations ("graduated practice");
- Re-assessing youth target behaviors and need factors using standardized and validated tools; and
- High degree of leadership involvement in the program.

To fully understand the benefits of this PEC component and its context within the Program Evaluation Continuum, the tenets of the CPC tool and the CPC review should be briefly described. The CPC assessment process involves an on-site visit and includes a series of structured interviews with youth and staff and treatment group observations. In addition, a comprehensive review of policy and procedure manuals, case files, and treatment curricula are conducted. Data are gathered from various sources, verified, and the program is scored using the structured CPC scoring criteria. There are 78 CPC items worth a total of 83 points. The instrument has been nationally normed using over 500 correctional program reviews; some items have been weighted differently to acknowledge their relationship with recidivism. There are five domains in which these items are grouped: Program Leadership, Staff Characteristics, Assessment, Treatment Characteristics, and Quality Assurance. The final report from a CPC program review includes a score for each of the five domains; an overall score; identification of program strengths and areas for improvement; and recommendations for program improvement. Ultimately, the CPC identifies a program's adherence to the Principles of Effective Correctional Intervention and provides a snapshot of how well a program is *expected* to perform and hopefully, reduce a youth's likelihood to recidivate.

As mentioned in the first section of this paper, OYA has been conducting CPC reviews since 2005. OYA has developed a protocol that ensures programs (e.g. close custody facility living units and contracted community residential programs) receiving an "Unsatisfactory" or "Needs Improvement" score are reviewed on an annual basis; programs scoring "Effective" or "Highly Effective" are reviewed every other year. This ongoing review process provides a "snapshot" of program integrity and gives programs sufficient opportunities for ongoing quality improvement. Unfortunately, this important but labor intensive process prevents the agency from conducting all scheduled reviews. This last biennium OYA chose to randomly select programs for review and the number of programs reviewed reflected resources available. Despite this change in the sampling process, OYA has sufficient CPC data to draw reasonable conclusions regarding how well a program is expected to perform. Although data integrity can threaten predictive models, OYA has employed a number of quality assurance strategies to mitigate risks to data integrity. Among these include:

- A formal CPC training program that involves three full days of training and an on-site experiential learning;
- Participating in a minimum of five CPC reviews AND a skills demonstration before becoming a CPC Team Lead Reviewer
- Formal mandatory inter-rater reliability meetings to ensure consistency among lead reviewers (a minimum of twice per year)
- Quality control checks on all CPC scoring sheets to ensure adherence to documented criteria
- Formal protocols around frequency of reviews, as previously mentioned.

Implementing the PEC model will not change the current practice of using the CPC tool to evaluate programs. However, the *role* and frequency of CPC reviews will change based on the information obtained from other PEC data indicators. More specifically, in the initial stages of the PEC implementation, OYA will continue its current protocol with regard to frequency of reviews as

described above. As the PEC is implemented and various PEC data indicators become available, the need to conduct a CPC review every two years will decrease. The long term vision is to regularly monitor the PEC "Outcomes" component (which includes recidivism and positive youth outcomes) and if data reveal a program is declining in effectiveness, program leadership will use other PEC components to identify factors associated with declining performance. The CPC review will continue to assist in identifying factors associated with deteriorating outcomes and identifying solutions. However, the role of the CPC will shift from the sole program evaluation tool to one of many sources of information that will be used to help programs stay aligned with effective practices. As part of PEC implementation, it will be necessary for OYA to create specific formalized criteria that trigger a CPC program review (e.g. all new programs, if recidivism data continue to increase for a period greater than 4 months, new program manager, staff turnover exceeding 25%, etc.).

b) Oregonized CPC

Data provided to: ***Program***

The nationally normed CPC addresses program adherence to the Principles of Effective Correctional Intervention. Although studies have linked CPC scores with outcomes, the association between each of the 78 questions and youth outcomes have not been sufficiently documented. The "Oregonized" CPC would correlate each of the 78 CPC items with re-offense rates for youth in the Oregon juvenile justice system. This PEC component would rely on seven years of CPC program data from OYA close custody facility living units and contracted community residential programs. Statistical research methods will re-weight each CPC item using the item's correlation to Oregon youth outcomes - recidivism and Positive Youth Outcomes (PYO). The "Oregonized" CPC may include additional items not currently in the CPC such as employment, GED attainment, and vocational training, if these are shown to be highly correlated with decreased recidivism.

Most importantly, the integrity of the CPC review process will be maintained and remain unchanged. The review process will continue to involve a full-day site review comprised of a series of structured interviews, case file reviews, treatment group observations, and review of program materials. In addition, program reviewers will adhere closely to the established CPC scoring criteria and quality control measures currently in place.

Calculations for the "Oregonized" CPC will be created based on the CPC scoring sheet currently entered into the Oregon Juvenile Justice Information System (JJIS) assessment. Using the "Oregonized" CPC score to supplement the traditional CPC score will allow programs to prioritize recommendations surfacing from the onsite program review. Automated reports detailing "Oregonized" CPC information will be used in technical support site visits to assist programs in focusing efforts on those programmatic changes that are highly correlated with outcomes. Ultimately, this allows programs to more effectively allocate resources to improving those service areas that will produce the greatest impact to Oregon youth. Eventually, improvements in the "Oregonized" CPC score are expected to generate known improvements in youth outcomes.

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
PROGRAM INTEGRITY & EXPECTED CAPABILITY	Correctional Program Checklist (CPC)	Residential Providers and Close Custody Facility Managers	JJIS reports to individual managers	Agency to decide what criteria will trigger a CPC review (i.e. new program, when other PEC components slip below a designated threshold, etc.)
	"Oregonized" CPC	Residential Providers and Close Custody Facility Managers	JJIS reports to CRU liaisons to provide technical assistance	Oregonized CPC re-calibrated periodically

c) Treatment Fidelity

An essential part of effective programming is delivering treatment services with fidelity (Andrews & Dowden, 2005; Henggeler, Melton, Brondino, Scherer, & Hanley, 1997; Hennessey & Jr, 2003; Moncher & Prinz, 1991). Several of the most well-known studies have been conducted by the Washington State Institute of Public Policy (WSIPP; http://www.wsipp.wa.gov/rptfiles/04-01-1201.pdf).

Consistent with best practices research, the Program Evaluation Continuum (PEC) includes fidelity as a critical element to ensuring successful youth outcomes. The PEC consists of two formalized treatment fidelity systems - one for OYA close custody facility living units and one for contracted community residential programs. In each of these formalized fidelity structures, two types of fidelity data will be provided to program leaders: 1) "General" fidelity, assessed using the Cognitive Behavioral Therapy Group Checklist; and 2) "Curriculum-specific" fidelity. Due to the complexity of creating a statewide fidelity system, OYA began by developing the fidelity infrastructure for OYA close custody facilities and later, assisted contracted community residential programs in building formal fidelity structures. For the purposes of brevity and to maintain alignment with agency priorities, the description of the PEC fidelity component provided in this section is specific to OYA close custody facilities.

The first approach to fidelity is a "general" measure of fidelity. Using the standardized Cognitive Behavioral Therapy Group Checklist, fidelity reviewers gather information highlighting the degree to which a treatment group facilitator adheres to the "Four Quarter System." Research upholds the most effective way to increase skill attainment is to use a structured approach to teaching a skill. The "Four Quarter" approach involves: 1) explaining the skill; 2) modeling the skill; 3) having each group participant role play the skill; and 4) providing opportunities for practicing the skill in increasingly more difficult situations. This general fidelity assessment will recognize how well group facilitators are using the Four Quarter method for skill acquisition.

The OYA fidelity system will involve Treatment Services Supervisors (TSS) regularly observing treatment groups. These TS Supervisors are at least master level counselors and are currently stationed at three of the agency's close custody facilities. Agency standards will require that at a minimum, TS Supervisors conduct a fidelity review on all treatment group facilitators at least once per group cycle (typically 10-15 weeks long) at their specified worksite. As part of this fidelity review TS Supervisors will provide detailed feedback to group facilitators on strengths, areas for improvement, and strategies for increasing facilitator skill level. Follow-up fidelity checks will be conducted to ensure group facilitators continue to develop their skills. These expectations will be clearly outlined in agency policy and protocols, as well as in local close custody facility procedures. Information from these fidelity assessments will be entered into the Oregon Juvenile Justice Information System (JJIS) and automated summary reports will be generated. These fidelity reports will be provided to program directors at least quarterly, with a long-term goal of eventually developing the capacity to provide this fidelity information on a monthly basis.

The second dimension of fidelity included as part of the PEC is "curriculum-specific" fidelity. Due to limited resources and in order to better ensure implementation success, OYA will begin formally collecting fidelity information on the Aggression Replacement Training (Goldstein, Glick, & Gibbs, 1998) curriculum. Once fidelity expectations are clearly established, the agency will develop strategies to collect information on other treatment curricula delivered agency-wide.

Gathering fidelity information for Aggression Replacement Training (ART) will mirror the process used for conducting the "general fidelity" assessment, as described above. To highlight a few of these similarities: TS Supervisors will be responsible for conducting regular fidelity reviews and summary fidelity reports will be provided to program directors at least quarterly, with a longer term goal of providing feedback on a monthly basis.

Inter-rater reliability sessions will occur on a quarterly basis during Treatment Services Supervisor (TSS) meetings to ensure consistency among fidelity reviewers. Inter-rater reliability activities will include viewing taped treatment group sessions and having TSS staff score the treatment group using the Cognitive Behavioral Therapy Group Checklist. An in-depth discussion of observations and facilitator scores will follow. This same process will be repeated for the "curriculum-specific" fidelity using videotaped Aggression Replacement Training (ART) treatment groups and the accompanying ART fidelity form.

As previously noted, due to the complex nature of establishing a statewide fidelity system, this PEC component will be implemented in phases. Some of the future steps will include:

- Creating fidelity forms for remaining OYA curricula (some curricula do not have accompanying fidelity forms while other curricula have fidelity forms that are too clinical in nature to provide meaningful information in a correctional treatment setting);
- Creating an infrastructure to sustain the PEC fidelity system (i.e. training additional fidelity reviewers, ongoing inter-rater reliability sessions, etc.)
- Determining a feasible strategy for gathering fidelity information from contracted community residential providers.

OYA must make several key decisions prior to implementing the PEC fidelity component. One very important decision is whether the agency will adopt a "treatment mall" approach to delivering treatment services in its close custody facilities. This model involves youth residing on living units (approximately 25 youth per unit) and attending daily treatment groups at a centralized location within the close custody institution. Youth participate in treatment at the "treatment mall" and then return to their individual living units to eat and sleep. If a "treatment mall" approach is adopted, the PEC fidelity strategy outlined in this whitepaper would change significantly. For example, one viable strategy using the "treatment mall" approach is to train teams of "certified fidelity reviewers" to conduct regular fidelity checks, rather than relying on the currently proposed use of Treatment Services Supervisors. Securing a pool of certified reviewers increases data integrity, increases inter-rater reliability, and provides consistent feedback. Ideas on how PEC fidelity information could be collected within the context of a "treatment mall" setting have already been carefully examined and discussed. Once an agency decision is reached, implementation activities will be generated to ensure success of a statewide fidelity system specific to close custody facilities.

Once a fidelity system is established for OYA close custody facilities, the agency will work with contracted community residential providers to determine a reasonable process for collecting fidelity information for residential treatment groups. This process may include formally training providers on specific fidelity tools, allowing access to the fidelity assessments in JJIS, and holding regular inter-rater reliability meetings. A statewide fidelity system for residential programs will likely mirror that for close-custody facilities.

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
PROGRAM INTEGRITY & EXPECTED CAPABILITY	Treatment Fidelity	Residential Providers and Close Custody Facility Managers	JJIS Reports	Minimum of quarterly (target is monthly)

Data provided to: ***Program***

d) Safety

The OYA mission upholds the importance of youth safety. Consistent with national research *** NEED CITATION***, Oregon data show many of our youth have suffered some significant trauma in their lifetime. Effective rehabilitation can only occur if youth feel safe. In addition, reformation can only be accomplished by ensuring youth are not re-exposed to past trauma. If youth safety is compromised or if youth are re-traumatized, passive participation and poor internalization of treatment concepts will occur. Low level internalization will translate into increased negative outcomes for youth (i.e. inability to regulate anger, increased likelihood to recidivate, etc.). For this reason, data elements concerning youth and staff safety or perceived safety, are included in the PEC model.

OYA currently collects safety information for close custody facilities and the contracted community residential programs. Much of the safety information is stored in Oregon's JJIS system and therefore

can be easily mined. Monthly automated reports will be generated and provided to program leadership. The PEC information populating these safety reports will be extracted from three main sources:

1) Statewide data collection through the national Performance-based Standards (PbS) – data collection occurs at close custody facilities (not community residential programs) twice per year;
2) Data gathered through an internal "Youth Service Survey" – data are collected in contracted community residential programs semi-annually;
3) Incident data which includes Youth Incident Reports, Prison Rape Elimination Act (PREA) information, and a number of critical safety indicators collected by the OYA Professional Standards Office (PSO) and OYA Human Resources Unit (see chart below "Additional Measures" for details).

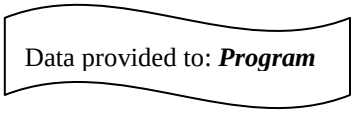
Program safety information will be provided monthly or quarterly (depending on the specific data source). The chart below details current indicators expected to appear on the safety portion of the PEC program progress report.

Close Custody Facility Measures	Community Residential Program Measures	Close Custody AND Community Residential Program Measures
• Injuries to youth and staff • Suicidal behavior • Assaults to staff and youth • Isolation time • Contraband • Staff and youth fear for safety	• Suicide attempt • Injuries greater than first aid • PREA (Prison Rape Elimination Act) information • Child abuse reporting • Death or major issue • Significant law violation • Youth injured • Runaways	• Professional Standards Office (PSO) contacts • Use of force reviews • Total number of complaints and number of founded complaints • Critical incident reviews • Staff injury resulting in a time loss event • Safety Committee reviews • Safety allegations • PSO hotline complaints and investigations • PREA data • Child abuse reporting

Table 1. Outcome indicators for youth and staff safety

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
PROGRAM INTEGRITY & EXPECTED CAPABILITY	Safety	Residential Providers and Close Custody Facility Managers	Automated JJIS Reports; PSO databases & manual summary reports	Monthly

2) TREATMENT PROGRESS



The Program Evaluation Continuum will provide meaningful youth progress metrics to program leadership. This regular feedback allows program leadership to identify areas of youth progress attributable to treatment. Conversely, these metrics will identify treatment areas requiring little intervention and identify treatment areas not improving during treatment.

This PEC "Treatment Progress" component uses pre-post test measures to determine youth progress in three key areas: Treatment knowledge attainment, skills acquisition, and behavior change. Using formal assessments, standardized checklists, and structured case plan competencies, information can be gathered at various times during a youth's stay (e.g. at intake, prior to start of treatment, every 90 days, and at point of release). Each of the three areas (i.e. knowledge, skills, and behavior) measured by pre/post testing and the methodology for collecting this information is described in detail below.

OYA is currently initiating a Positive Youth Development (PYD) approach to treating youth offenders. Although the PYD framework has not been implemented, PYD metrics will be included in the PEC model. PYD indicators will eventually be described in the "Outcomes" section of this paper. Since some of these indicators will require pre/post testing as a data collection method, some PYD measures will be referenced in the "Treatment Progress" section.

a) Knowledge Attainment

Having awareness and knowledge is necessary in order to change behaviors and maintain these behaviors over time. The pre/post testing recognizes knowledge before and after treatment, and the knowledge obtained during treatment. The level of attainment during or after treatment should be highly correlated with youth outcomes if OYA services are effective. Knowing the three scores (i.e. pre, post, and change) is crucial to improving youth and improving youth outcomes.

Youth will be given a pre-test prior to beginning each 10-15 week treatment group cycle. These knowledge tests will be specific to each curriculum and closely aligned with unique learning objectives. Upon completion of the treatment group cycle, youth will complete another knowledge test identical to the pre-test. All pre/post test information will be entered into JJIS; this allows data to be extracted and summarized in an automated PEC report. This information will be provided to program leadership at the end of each treatment group cycle (approximately once per quarter).

Gathering pre/post test information is the first step in identifying what youth are gaining from treatment. Reviewing post-test information allows staff to recognize the treatment concepts which youth continue to struggle and which concepts youth have begun to understand. Identifying deficient areas provides staff an opportunity to more intensively target particular treatment areas. This information may translate into modifying treatment, more individual treatment, having youth repeat specific treatment modules, and/or completing additional homework assignments. While youth will be permitted to re-take the post-test, for information purposes, only the initial post-test will be entered into JJIS.

There are several challenges to implementing the "Treatment Progress" component. One challenge involves the resources to effectively implement pre/post testing statewide in close custody and contracted community residential facilities. For example, many of the treatment curricula currently used by OYA do not have accompanying pre/post knowledge tests. Consequently, some objective and universal pre/post tests should be identified and tested. In some situations, OYA treatment services staff experienced in the curricula will need develop curriculum-specific knowledge tests. Since OYA uses over 30 different curricula, developing the battery of pre/post knowledge tests could require substantial staff resources.

Resources are needed to further develop Juvenile Justice Information System (JJIS) to support this PEC subcomponent. Because each treatment curriculum may have a unique knowledge test, individual JJIS assessments should be constructed to allow data mining and report generation. As previously mentioned, OYA uses over 30 different curricula in its close custody facilities and there exists even more treatment curricula among the 40 contracted community residential providers. Resources may be necessary for data entry of pre/posttest information. Furthermore, policies should be created and contract language revised to support the new business practice of administering pre/post testing.

b) <u>Skills Acquisition</u>

Cognitive Behavioral Treatment (CBT) addresses cognitive and behavioral deficits by focusing on skill acquisition. Many youth have delayed development processes and limited age-appropriate skills. Most of the approved OYA curricula aim to cultivate the requisite skills necessary for proper development. "Skills" can be broadly divided into two broad categories - cognitive and behavioral. The PEC will include a pre/post testing system recognizing skill acquisition for both cognitive and behavioral functioning.

Developing cognitive skills that improve functioning in mores stressful situations and interpersonal daily living is one measure of program success. One tool that measures skills acquisition is the Thinking Skills Inventory (TSI). The TSI was selected to provide information on youth progress in five key areas: 1) executive functioning; 2) language processing; 3) emotion-regulation; 4) cognitive flexibility; and 5) social skills. The TSI includes assessment of 30 skills within five domains. A Likert-scale version of the inventory provides a method of measuring skill development using pre/post testing. Some examples of skills assessed include: thinking before responding; considering the likely outcome of his/her actions; considering a range of solutions to a problem; expressing concerns, needs, or thoughts in words; understanding spoken directions; thinking rationally even when frustrated; managing irritability/anxiety/disappointment in age appropriate ways; thinking hypothetically; taking into account situational factors that may mean a change in plans; interpreting information accurately; accurately interpreting nonverbal social cues; seeking attention in appropriate ways; understanding how his/her behavior affects others; empathizing with others and appreciating others' perspectives.

The TSI will be administered during a youth's initial close custody placement; when the youth transitions to a long-term living unit; and any time there is a placement change. The long-term vision for pre/post testing for skills acquisition is the TSI will be conducted every 90 days as part of the

Multi-Disciplinary Team (MDT) meetings. This pre/post test information will be entered into JJIS and be summarized on an automated skills acquisition report for close custody facility living units.

Once the TSI has been successfully implemented in OYA close custody facilities, the agency will work with contracted community residential programs to determine how skills acquisition information can be obtained for youth in their programs. Several community residential programs in Oregon are familiar with the Thinking Skills Inventory, and have free access to the tool via the Think:Kids website. Additionally, OYA employees certified in Collaborative Problem Solving (CPS) have offered to provide introductory CPS training, which includes TSI training, to OYA contracted providers. The TSI pre/post information should a standard PEC assessment for close custody facility living units and community programs.

As mentioned earlier, OYA is implementing a Positive Youth Development approach to working with youth. For this reason, OYA is *considering* adopting the Developmental Assets Profile (DAP; Available at: http://www.search-institute.org/assets/impotance.html). This self-report inventory measures a number of developmental factors related to skills, assets and competencies necessary for youth to successfully transition to adulthood (Butts, Bazemore, and Meroe, 2010). Youth will complete the DAP upon commitment to OYA as part of the standard intake process, prior to release from close custody, and when there is a community residential program placement change. More detailed information on these pre/post measures is provided in the "Outcomes: Positive Youth Outcomes" section of this paper.

c) Behavior Change

OYA requires all youth have a detailed case plan that follows them through the state juvenile justice system. These case plans are housed in the automated Juvenile Justice Information System (JJIS). Every 90 days youth are "graded" on a number of long-term goals and behavioral competencies. Consequently, OYA is data rich in tracking youth progress related to completing treatment goals.

Despite having an abundance of data, there may be barriers preventing the immediate implementation of the pre-post behavior change PEC component. First, the youth case plan has a menu of over 100 case plan competencies from which staff may select and these competencies are not linked to specific curriculum. This makes it nearly impossible to determine behavior progress post treatment. Further complicating the matter is the fact that although youth are rated every 90 days using a five-point Likert scale, there is wide variability in scoring among staff (i.e. differences in what a score of three looks like). Identification of the pre/posttests and developing inter-rater reliability is necessary before useful data can be obtained. These barriers must first be addressed in order to extract meaningful behavior progress information from youth case plans.

Implementing the pre/post behavioral component of the PEC may be resource intensive and may require a significant investment from the OYA Information Systems (IS) unit. Additionally, it will be necessary to convene a long-term workgroup comprised of a variety of OYA staff (i.e. Treatment Services, IS developers, research, etc.) to begin identifying the pre/post tests most likely to recognize skills and behavior change attainable through treatment. One strategy may be to form a workgroup to:

- Decrease the number of OYA case plan competencies;
- Map competencies to specific OYA curriculum;

- Revise competencies to be more behavioral in nature (reflect observable behaviors);
- Determine a method for quantifying youth progress - create a meaningful scale on which to rate youth every 90 days that will also ensure consistency among staff (inter-rater reliability)

As with several other PEC components, pre/post behavioral implementation will initially occur in OYA close custody facilities and later expand to include an evaluation feedback loop for contracted residential programs. A unique set of challenges will accompany pre/post behavioral testing in the community residential setting including the lack of standardization among providers. Each contracted provider has a unique system for tracking youth treatment progress on a Master Service Plan (MSP). These youth treatment plans are often paper files or Microsoft Word documents not housed in a centralized data system. Therefore, mining data to summarize behavioral progress is currently not possible. OYA and the community program leadership should develop an appropriate strategy for gathering behavioral progress information specific to community programs. This may involve granting providers access to the JJIS youth case plan and/or adopting a pre/post test instrument that measures behavioral progress.

Once the case plan competency workgroup completes the tasks described above, and when the IS unit has developed the new behavioral case plan in JJIS, all staff will be formally trained on the new case plan format, competency definitions, and rating scale. Following the full scale implementation of the new case plan, automated reports detailing behavioral progress will be created. These reports will be provided to program leadership on a quarterly basis.

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
TREATMENT PROGRESS	Pre/Post Testing: Knowledge and Skills Acquisition	Residential Providers and Close Custody Facility Managers	JJIS reports	A minimum of quarterly
	Pre/Post Testing: Behavioral Case Plan Competencies	Close Custody Facility Managers	JJIS reports	A minimum of quarterly

3) Outcome Data

There are two distinctively different outcomes included in the PEC's "Outcome Data" component. The first measure is the traditional measure of recidivism, defined in Oregon as a subsequent felony conviction or adjudication within three years of release or beginning of probation. The second measure considers Positive Youth Outcomes, which includes several indicators of success (i.e. obtaining education degrees and vocational certifications, being actively engaged in school/work, developmental outcomes, etc.). The "Outcome Data" serves as the "pulse" of the PEC model and relies on real-time data generated by a data warehouse. This component is monitored more frequently

than other PEC components and provides information regarding whether program services are *actually* producing the intended results for youth.

a) Recidivism

A key component of an ideal program evaluation continuum includes the timely and accurate estimation of program effects. To continuously quantify the reduction in recidivism attributable to programming, a statistical methodology must be developed and automated. The following section describes the statistical methodology used to determine program effects in the context of the PEC model.

The methodology that quantifies a program's effectiveness matches control and treatment youth using these static and dynamic youth characteristics. For each youth provided treatment or programming (i.e. treatment youth), an "identical" twin who does not receive the service is identified (i.e. control youth). For each youth provided a service, an identical youth not provided the service, is paired with that youth. The "propensity matching" creates two very similar groups. The matching system identifies the treatment group (i.e. those receiving the program) and creates a very similar control group (i.e. not receiving the program or a similar program). The "identical twin" has a similar criminal history, is the same age, is the same gender, and generally has similar criminogenic needs. The intent is to pair the treatment youth with non-treatment identical twin. If the only difference between the paired youth is treatment involvement, the effect of treatment on recidivism can be estimated. Although the treatment group may contain dissimilar youth, the collection of "identical twins" in both groups mimics a random assignment of youth to a control and treatment group. When the groups are nearly identical, determining the recidivism differences between those receiving programming and those not receiving programming allows researchers to quantify treatment effectiveness A formal description of this methodology is available on the Oregon Department of Corrections website (www.oregon.gov).

How do we know both groups would have similar recidivism rates if the treatment group were not provided treatment? The equation that associates youth characteristics with an outcome identifies the youth characteristics used in the matching process. The equation development process identifies the pertinent youth characteristics and quantifies the predictive accuracy for each equation. The equations with the best predictive accuracy consistently identify the youth who will recidivate and youth who will not recidivate. The OYA Juvenile Justice Information System (JJIS) provides enough data to generate accurate equations and identify recidivism risk for each youth.

How can we evaluate all programming offered to OYA youth in close custody facilities and in the community? Most program evaluations rely on researchers to match control to treatment youth. Essentially for each youth provided treatment, an identical twin not provided treatment is identified. The treatment recidivism rate is then compared to the control recidivism rate to generate estimates of program effectiveness. When dozens of programs are involved, an automated system should be developed to automatically match treatment youth with control youth. Currently, the OYA operates more than 30 individual close custody living units and contracts with nearly 40 community residential programs, making automation a logical choice. The numerous variables associated with the outcome (recidivism in this example) are all simultaneously used to identify the identical twin. Each matching variable is "weighted" to recognize its strong or weak association with recidivism. Youth

characteristics most associated with recidivism are weighted more heavily and are considered more important in the matching process. This simultaneous consideration of variables ensures the best match is identified for each treatment youth.

The common program effectiveness measure often uses three year recidivism as the outcome. Although this universal measure of program effectiveness is often preferred, the evaluation only considers youth who left the program at least three years ago. When programs and youth populations change, estimates of program effectiveness may not accurately predict future program success. The long periods between program evaluations can allow programs to drift and become less effective. If a program evaluation system continually aligns youth needs with program attributes, program drift will be minimized. As more information is provided to treatment programs, the programs will make the appropriate modifications to maximize their success and stay more aligned with youth outcomes.

The automated program evaluation system would simply identify the identical twin as the "treatment youth" leaves closed custody. The recidivism outcome would not be restricted to a three-year period and would include those released recently, as well as, those released many years ago. A youth leaving a closed custody facility may be paired with a youth on probation or a different identical twin being discharged from closed custody who did not receive the treatment. The pairing of identical twins considers time in the community (i.e. ability to recidivate) after involvement with a particular program. If a program wants to quantify the effectiveness of their program by considering the most recent 200 youth participants, a comparison with the 200 identical twins (i.e. those not receiving treatment) is available. The methodology does not wait three years for youth to recidivate. The actual recidivism rate of these 200 treatment and 200 control youth may be lower than the OYA three-year recidivism rate, however, a comparison can be made between the recidivism rates of the two groups. The relative magnitude of the two estimates (i.e. those receiving treatment versus not receiving treatment), generates the estimate of program effectiveness. Alternatively, a program may want to compare their current effectiveness (e.g. those served in the last three years) with their effectiveness five to ten years ago. The recidivism rate will be higher for the group served five to ten years ago than for those served in the last three years. Comparison of the treatment and control recidivism rates for each time period can provide estimates of program effectiveness regardless of time since release. Similarly, a program may want to identify their effectiveness with female youth. Regardless of when the females received treatment, the comparison between treatment and control recidivism rates can provide an estimate of treatment effectiveness. This same comparison can occur for any youth subpopulation if sufficient numbers are included in the subpopulation.

If treatment programs change the population of youth being served, is the program evaluation continuum affected? No, the program evaluation system is not affected. The youth being served by the program will be matched with similar youth (i.e. youth and highly criminal youth not receiving the program). If the new population of youth served in this program can be recognized by the variables in the equation, the identical twin can be identified. Thus the automated program evaluation system can evolve as the profile of youth being served by a program evolves.

This constant monitoring ensures the best programs are available to today's youth by constantly updating program attributes to match youth needs. More details on how PEC Recidivism data will be used to better match youth and shape future programming is described in the Services Matching component of this paper. The ideal state of the PEC is to allow the juvenile justice system to

continually evolve by using data-informed decision making. By doing so, new programs will be created to serve more difficult youth populations, while existing programs will be enhanced to become more effective.

b) Positive Youth Outcomes

*** This workgroup is still in progress and therefore this section has not been fully written. As a placeholder some minimal information is provided below. Once the subcommittee completes its work this section will describe the specific Positive Youth Outcome indicators that will be used for close custody facilities and contracted community residential programs…and the proposed implementation strategy.

OYA is implementing Positive Youth Development (PYD) as a primary approach to treating youth offenders. PYD operates under several key premises including:

- Believing youth can be held accountable and *strengthened* at the same time;
- Understanding that PYD is not something we do *to* youth, but something we do *with* youth;
- Views youth as *resources* to develop, not *problems* to be fixed;
- Assuming a strengths-based approach fosters self-esteem and other protective factors in adolescents;
- Understands the connection between normal adolescent behavior and delinquent behavior can inform intervention; and
- Treats the symptom of delinquency differently than treating the cause of delinquency.

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
OUTCOME DATA	Effect Size: Recidivism	Residential Providers, Close Custody Facility Managers, & Legislators	Data Warehouse	Quarterly????? Minimum of twice per year?????
	Effect Size: Positive Youth Outcomes	Residential Providers, Close Custody Facility Managers, & Legislators	Data Warehouse OR JJIS report ?????	Quarterly????? Minimum of twice per year?????

4) Services Matching

Data provided to: ***Program***

The "Services Matching" component identifies the likelihood of a youth's success if a youth receives a particular service. Statistical formulas are created to answer the question, "Which program will most effectively serve this youth?" In addition to determining most effective program for each youth, the "Services Matching" component also addresses the question, "What is the optimal length a program should serve youth to ensure the highest likelihood of crime-free lifestyles once released?" OYA has developed equations to calculate optimal length of stay for community residential programs. Although some research suggests an appropriate length of stay in correctional treatment programs ranges between three and nine months, Oregon data suggest the optimal length of stay vary. Client demographics (i.e. age, gender, etc.) as well as the intensity of services offered by the program (treatment dosage) can influence the optimal dose. Optimal dose is considered the most appropriate period/intensity of treatment to minimize the likelihood of recidivism.

Data analyses indicate programs have a known association between dose and recidivism. Research indicates there is a "saturation" point for treatment absorption. Keeping youth longer in a program or having youth repeat the same treatment curricula numerous times does not produce maximum benefit/results from treatment. In fact, providing youth with services beyond the optimal treatment dosage is counterproductive to achieving desired outcomes. Essentially, doing so decreases youth engagement and increases the likelihood of recidivating. Beyond the optimal length of stay there is generally a slope of diminishing returns followed by elevated recidivism rates. In this situation, the youth has extracted all benefits from the program and additional exposure to treatment will only increase the likelihood a youth recidivates.

In other words, extremely short periods of treatment are generally associated with high recidivism rates. As more treatment is provided, the recidivism rates of youth exposed to more treatment is expected to decline. If there is no relationship between recidivism and dose, the treatment is ineffective. If a program is effective, recidivism should decline as dosage increases. For most associations between dosage and recidivism, there is a "sweet spot" where dose is optimal and recidivism is minimized to its lowest point.

In summary, ending treatment too early increases risk and deprives youth of beneficial treatment. Recognizing the point of diminishing return suggest a youth should be transitioned to a different program, allowing space for another youth to benefit from treatment. Knowing the diminishing return point in the treatment continuum allows administrators to maximize the benefit of the system and minimize recidivism. Ultimately, knowing when additional treatment is associated with increased risk of recidivism is crucial allows for prudent use of valuable resources and decreases the likelihood of future victims.

Currently, OYA has optimal length of stay calculations for its contracted community residential programs and its close custody facility units. The long-term vision is to refine the length of stay calculations to reflect treatment dosage rather than merely length of time in a program. Since there are many program services offered by the various facility living units and community programs,

identifying the association between dose and numerous outcomes is necessary. Optimal treatment dosage information will allow for better resource allocation, through targeted program-specific treatment dosage. Ideally, if treatment dosage information is used to inform service provision, programs will not unnecessarily provide youth with additional treatment hours. Also using this information will ensure treatment beds are not occupied by youth while increasing likelihood of recidivating.

Information derived from the Services Matching component will inform resources needed to adequately serve youth within the juvenile justice system. Programs within the system (close custody and contracted community residential programs) may require some flexibility with aligning services with changing youth needs. The implications of the "Services Matching" component are tremendous as services may continue to change to meet current youth needs. Regardless of alignment changes, the expected improved efficiencies derived from matching youth and service are great and resulting program effectiveness is appealing.

Oregon's Youth Reformation System allows OYA to place youth based on typology information into programs where youth will have the greatest likelihood of succeeding. OYA can funnel each youth to the program with the greatest likelihood to minimize recidivism and maximize a positive outcome. This proactive approach optimizes available resources but also recognizes youth populations poorly served by existing programs. Once youth populations poorly served by existing programs are identified, new programs specifically designed for these youth can be developed, implemented, and tested. The ideal state, which includes maximum program effectiveness throughout the juvenile justice system, will continually develop new programs as less effective programs adapt and become more effective. Programs will adapt to assure maximum effectiveness and new programs will be developed to serve populations poorly served with existing programs.

The "Services Matching" component may also impact the type of youth a program serves. For example, if a particular program is very effective with young and highly criminal youth, the program will seek these youth for their program. Prior to matching youth and services, the same program may seek different youth populations considered amenable to treatment. Not knowing their effectiveness the program may continue to seek these youth for their programs. As programs are provided effectiveness information the types of youth a program accepts into its program will change. It will take several years before this PEC component is effectively implemented and the system is running smoothly.

Information needed to generate youth typologies (which helps determine population with which a program is most effective) and optimal length of stay is automatically derived from data housed in Oregon's Juvenile Justice Information System (JJIS). Services matching information will be provided to close custody facilities and community residential programs when JJIS data are refreshed (a minimum of once per week) and automated reports will be generated a minimum of quarterly.

PEC Component	Sub-component	Data Provided to Whom	Reporting Format	Frequency
SERVICES	Youth Population and Optimal Dosage	Residential Providers and Close Custody Facility	JJIS report	Quarterly

MATCHING		Managers		
	Appropriate Resources	Residential Providers, Close Custody Facility Managers, & Legislators	JJIS report	Periodically as needed

5) Cost Effectiveness

The OYA return on investment model asks, "For every dollar spent or invested in a particular program, how much estimated cost savings is generated?" The cost savings component of the PEC relies on analyses conducted at the Washington Institute of Public Policy (WSIPP). The WSIPP benefit/cost avoidance model considers a variety of benefits resulting from offenders not committing future crimes. Some factors included in the equations are avoided costs associated with police arrests, court proceedings, incarceration, and victim reparations. More detailed information about the cost avoidance model on which Oregon's model is based can be found in the article, "*Return on Investment: Evidence-Based Options to Improve Statewide Outcomes - April 2012 Update (by Lee, Aos, Drake, Pennucci, Miller, and Anderson;* http://www.wsipp.wa.gov/pub.asp?docid=12-04-1201). In addition, the WSIPP "Return on Investment" technical manual provides the formula specifications used in the cost savings model. These details can be found in the article: **"***Return on Investment: Evidence-Based Options to Improve Statewide Outcomes Technical Appendix Methods and User-Manual* by *Lee, Aos, Drake, Pennucci, Miller, Anderson, and Burley - April 2012;* http://www.wsipp.wa.gov/rptfiles/11-07-1201A.pdf)

There are challenges to implementing the WSIPP model in Oregon. OYA does not currently have effect sizes for close custody or community residential treatment programs. Fortunately, WSIPP has conducted some meta-analyses that can provide estimates (although WSIPP services do not perfectly align with programs/services offered at OYA). Although the proxy estimates are useful, generating OYA-specific estimates is necessary. Despite implementing evidence-based programming and despite having estimates from numerous well designed studies, there is no guarantee our services effectively reduce recidivism for Oregon youth. Proxy estimates may not accurately estimate effects and may mislead researchers and administrators. However, for the first draft PEC cost-effectiveness component, WSIPP estimates were used for programs which had *similar* program components and the same theoretical framework. For example, the WSIPP effect size for cognitive behavioral treatment was used as a proxy for the cognitive behaviorally based curriculum, "Aggression Replacement Training." OYA expects to generate effect size estimates on the Oregon youth population within the next year. The PEC cost-effectiveness model will continually be updated as effect sizes for Oregon youth become available. Once the PEC cost-effectiveness component is fully developed and stabilized, program providers and legislators will have access to this information quarterly**.**

Below is a chart detailing the OYA curricula and corresponding effect size that was used to populate the cost-avoidance model.

	OYA Curriculum/Program Name	Proxy Effect Size - Source
Close Custody Facilities	Aggression Replacement Training (ART)	WSIPP ART
	Changing Offender Behavior (COB) #1	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
	Changing Offender Behavior (COB) #2	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
	Core AOD (Cannabis Youth Treatment – Motivation Enhancement Training – Cognitive Behavioral Treatment 12)	*N/A - not available*
	Pathways to Self-Discovery and Change	*N/A - not available*
	Responsible Sexual Behavior – Transition (Kaufman)	*N/A - not available*
	Responsible Sexual Behavior – Treatment (Kaufman)	*N/A - not available*
	Seeking Safety	*N/A - not available*
	Skill Streaming – Adolescent	WSIPP ART
	Street S.M.A.R.T.S.	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
	Teach Social Skills to Youth (Boys Town)	WSIPP ART
	Hillcrest EQUIP	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
	Rogue Valley – Cog 3 Making the Change Count	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
Community Residential Programs	Sex Offense Treatment	*N/A - not available*
	MTFC	WSIPP MTFC
	ATOD	*N/A - not available*
	CBT	WSIPP cognitive behavioral meta analysis (2006 estimates for JUVENILES)
	Life Skills	*N/A - not available*
Juvenile Crime Prevention Diversion and Basic Funding	Functional Family Therapy (FFT)	WSIPP FFT estimates
	Aggression Replacement Training (ART)	WSIPP ART estimates

	OYA Curriculum/Program Name	Proxy Effect Size - Source
	Drug Court	WSIPP Juvenile Drug Court estimates

***Table* _____.** OYA curricula and corresponding proxy effect sizes used in the cost-avoidance model.

Implications/Benefits of Model

The Program Evaluation Continuum promises numerous benefits to program providers and has extensive system implications. A few of these benefits are listed below.

1) *Immediate and ongoing feedback to programs.* Data from the PEC will allow program leadership to continually fine-tune programming and ensure services are staying aligned with effective practices. The real-time data aspect of the PEC allows programs to monitor effectiveness and readily respond to emerging issues. This represents a tremendous enhancement to traditional outcome studies that require a three-year wait period for outcome results (i.e. recidivism rates).

2) *Data driven decision making.* The Services Matching component provides information about with which youth programs have demonstrated the most success. In this way, youth and programs can be matched for optimal effectiveness and efficient resource allocation to meet system needs.

3) *Increased transparency and accountability* by making PEC data visible to program leadership, staff, and stakeholders. Future implications may include using PEC data to support performance-based contracting with community residential providers.

4) *Generating agency and program cost savings*. By regularly monitoring the various PEC components, programs are able to rapidly "course correct" and address deficient areas. This immediate response to problems ensures money invested in programs and services is spent judiciously - on services that will produce the most positive youth outcomes (i.e. more engaged youth contributing to society, decreased costs associated with recidivism, etc.)

Challenges and Limitations

There are inherent expected challenges with building a model of this caliber and magnitude. Most of these challenges are specific to the implementation phase and worthy of a separate, and detailed whitepaper. In addition to the inherent challenges with implementing a major initiative, there are significant limitations to the PEC. However, it seems appropriate and beneficial to highlight more broadly, the four most critical limitations of the PEC. These barriers are discussed briefly below.

1) *Resources*

System -wide implementation of the PEC model will require a significant amount of resources. As previously mentioned, OYA has over 30 close custody facility living units and contracts with more than 40 community residential programs. Successful statewide implementation will require changes to the current Juvenile Justice Information System (JJIS). Necessary enhancements will include creating new assessments to support the Oregonized CPC, fidelity tools, pre/post testing instruments,

and the automation of many statistical equations. Additionally, new automated reports will be created to summarize information from the various PEC components (i.e. fidelity, pre/post testing, etc.) and provide to program leadership. The most critical component needed to support the PEC is construction of a data warehouse; the data warehouse enables treatment effectiveness to be determined.

Implementing any new complex system requires additional resources to transform a multitude of processes. The PEC model will require purchasing numerous assessment tools (i.e. TSI); require extensive training; and require the evaluation of OYA staff, stakeholders, and community partners. In addition, the "Treatment Progress: Behavioral Progress" component puts forth major revisions to the current youth case plan structure. This will require numerous long term workgroups with diverse representation and knowledge. There are many other considerations including the development of policies and procedures to support the changes to business practices, community contracts, and overall agency philosophy.

The benefits of the PEC model are extraordinary, however, the resources necessary for full implementation are also extraordinary. In addition to implementation efforts there should be consideration given to the resources necessary to maintain a complex and complicated system. Resources will be necessary to support enhancements to the data information system, quality assurance, treatment services, and research departments to allow effective evaluations of all OYA programs. Knowing the resource investment is substantial the agency should maintain a longer term view: Investing resources in this type of ongoing program evaluation affords an opportunity for substantial cost savings, by ensuring programs "course correct" immediately and continuously align with best practices known to produce positive outcomes for youth. Essentially, there are substantial investments to implement the PEC system. However, there are also substantial costs for close custody beds, residential treatment beds, victim reparations, and Department of Corrections (DOC) beds if a new system is not implemented.

2) *Agency cultural barriers*

Although the benefits of the PEC model offers are extraordinary, OYA must be realistic with implementation timelines. The majority of OYA staff and stakeholders are accustomed to receiving evaluation information from the Correctional Program Checklist program reviews; the PEC greatly expands the definition of what it means to be "effective." Some individuals will appreciate and embrace the ongoing feedback loop offered by the PEC model. Others will resist new concepts and tools and may refuse to engage in this new way of thinking. Therefore, the agency should be strategic with engaging OYA staff, partners, and other stakeholders. With little or no resistance to the PEC concepts, implementation will require years of effort before results are truly realized. Realistically, it will be a <u>minimum</u> of 3 years before all the PEC pieces are fully implemented and the majority of staff are on board.

In addition, for the PEC model to succeed, implementation must involve full leadership support (i.e. understanding the PEC concepts and purpose), a clear vision in mind (i.e. detailed implementation plan with which staff and stakeholders understand and endorse), strategies for removing obstacles to address various limitations, and a solid sustainability plan that will ensure the model continues to move forward and evolve over time.

3) *Accuracy of data*

The ideal state is dependent on accurate and precise data. Although the current JJIS system captures high quality data, current contributors need continued efforts for maintenance of the ideal system. High quality data existing in JJIS is the result of information entered by county staff, community residential treatment providers, OYA's juvenile parole and probation officers, and OYA facility staff. The accuracy of this data coupled with continued analysis and maintenance by JJIS developers is essential for continued improvement to the ideal state. Although continued support by JJIS is necessary, the ideal state should eventually consider data from other sources such as the Department of Education, Department of Human Services, and the Employment Department.

4) *Competing Priorities*

The proposed system will encourage changes to the existing system. Although beneficial changes will occur (e.g. more effective programming), there are collateral changes that may have unintended negative consequences. For example, as programs strive to improve their effectiveness, the program options available to youth will become less diverse as programs become more specialized. Although specialization may improve youth outcomes, the ability of intake professionals to match youth with programs may become more difficult. The current system may have numerous choices for each youth. As the range of youth served in each facility decreases, choices may become more limited; some populations will eventually become youth subpopulations poorly served by existing programs. If particular youth populations exceed bed capacity, the alternative placement may not be favorable compared with the current options. Documenting the criteria for resolving competing priorities may have benefit today. Having these conversations now will allow OYA to be thoughtful in its decision making down the road (i.e. responsive not reacting).

Summary

The objectives of this whitepaper were to provide a detailed description of the PEC model, discuss the model's limitation and raise considerations for implementation. The PEC is a tremendous undertaking that requires numerous resources and thoughtful implementation. The time necessary for full implementation is extensive; the implementation plan will require development of a data warehouse and a system-wide fidelity monitoring system. Despite the required resources, the PEC promises to continually ensure effective programming and produce cost savings in years to come (through improved positive youth outcomes and reduced recidivism). There is no better time than now to increase system efficiencies, improve programming and services, and to increase the likelihood of a positive future for our youth. It is our responsibility.

REFERENCES

* Will add references!