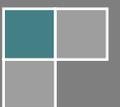


Oregon Department of Human
Services

Differential Response Initiative

Program Evaluation Plan



1.0 INTRODUCTION

1.1 Program description

Differential Response is an approach that allows child protective services (CPS) to respond differently to accepted reports of child abuse and neglect. In Oregon, Differential Response (DR) consists of two response pathways: Traditional Response (TR) and Alternative Response (AR). Both require a comprehensive Child Protective Services (CPS) Assessment using the Oregon Safety Model (OSM) to guide safety decision making. Traditional Response devotes substantial attention and resources to evaluating allegations of maltreatment and determining whether these allegations are substantiated. Alternative Response focuses on assessment of family needs through enhanced engagement strategies. Both response types offer optional services to families identified with safe children and moderate to high needs. AR deemphasizes forensic interviewing, and sets aside fault-finding and the substantiation of maltreatment allegations and entries into the Central Registry. Factors that are considered in making decisions about initial response track (TR or AR) assignment include the severity of the allegations, statutory limitations and requirements (such as Karly's Law), the ability to assure the safety of the child(ren), and the family's history of past reports is factored in when determining severity. Table 1 highlights the differences between the TR and AR tracks and Figures 1 and 2 (included at the end of this document) show the process and decision flow charts for each response.

Table 1. Differences between Traditional Response and Alternative Response tracks

Traditional Response	Alternative Response
Comprehensive Safety Assessment on allegations of physical abuse, sexual abuse, and severe harm	Comprehensive Safety Assessment on allegations of neglect and no severe harm
Typically 24 hour response	Typically 5 day response
No scheduled joint first contact with community partner offered	Scheduled joint first contact with community partner offered
Agency driven	Family driven
Individual interviews	Family interviews
Disposition/finding required	No disposition/finding required
Central Registry entry as indicated	No entry in Central Registry

Oregon's vision for Differential Response is that as a result of its implementation, the state will see the following outcomes:

- Children will be kept safely at home and in their communities using the Oregon Safety Model and its core concepts and tools to guide decision making;
- The community and Oregon DHS will work in partnership with a shared responsibility for keeping children safely at home and in their communities;

- Families will partner with Oregon DHS to realize their full potential and develop solutions for their challenges;
- Fewer children will re-enter the child welfare system through improved preventive and reunification services for families;
- Disproportionality will be reduced among children of color; and
- Private agencies and community organizations will experience stronger partnerships with Oregon DHS on behalf of children and families.

1.2 Program logic model

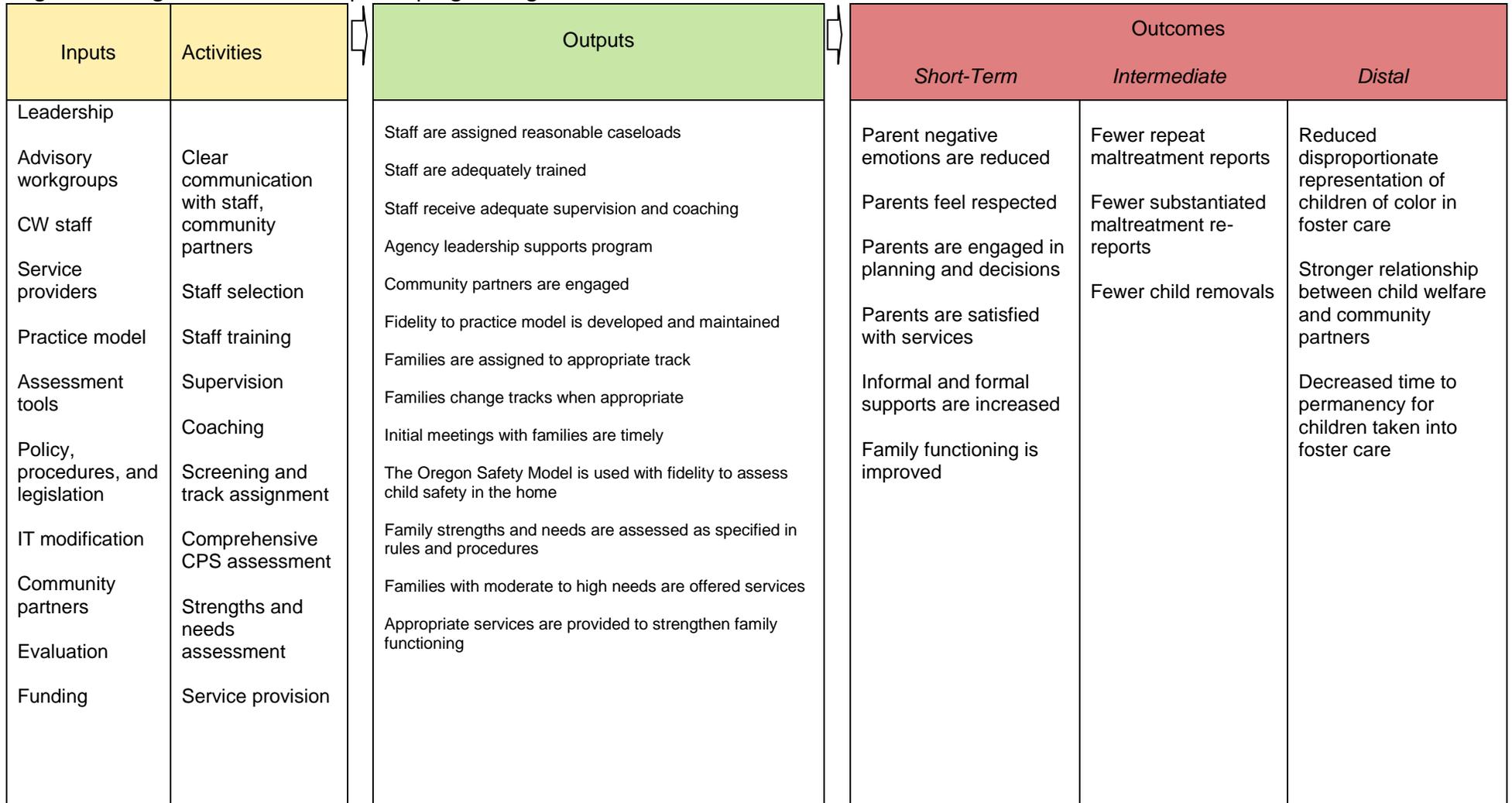
A logic model clearly articulates how specific activities or services are expected to produce or influence their associated outcomes. It illustrates the conceptual linkages between the program components; expected outputs; and short-term, intermediate, and distal outcomes. The goals of the Oregon Differential Response initiative are to reduce repeat maltreatment and foster care entries; strengthen families and increase their functioning; reduce disproportionate representation of children of color in foster care; and strengthen the relationship between child welfare, families and the community. The logic model in Figure 3 presents the conceptual linkages between the Oregon Differential Response intervention components and expected outputs and outcomes.

Inputs and activities. The Oregon Department of Human Services (DHS) will invest numerous resources and engage in a range of activities (i.e., *inputs*) to develop Differential Response. Inputs include a supportive and inclusive leadership team; DR advisory workgroups and committees; child welfare staff; service providers; development of a DR practice model; development of screening and assessment tools to guide decision-making; development of rules, policies, and procedures; modification to existing IT systems; engagement with community partners; program evaluation; funding; staff training; and staff supervision and coaching.

Outputs. As a result of these inputs, the necessary components of the intervention will be implemented (*outputs*). Staff will be selected and adequately trained, supervised and coached so that they develop and maintain a high level of fidelity to the DR practice model that is specified in rules, policies, and procedures. Through the use of the track assignment tool, families will be assigned to the appropriate CPS response track (AR or TR). Initial meetings with the families will be timely, and families will be involved in the assessment and decision-making process. The Oregon Safety Model will be used to assess child safety and guide worker decision-making. If assessment reveals that families initially assigned to AR have ongoing safety threats, they will be reassigned to the TR track, a case will be opened by DHS, and appropriate services will be provided to the family. If no safety threats exist and the family is identified as having moderate to high needs, a service provider will engage them in a strengths and needs assessment to determine what services may be offered to improve family functioning. An array of services can be provided them to address these needs and build on existing strengths.

Outcomes. The outputs of the intervention are expected to produce short-term, intermediate, and long-term changes in families', workers', community partners', and the child welfare system's *outcomes*. Within the short term, parents will feel fewer negative emotional responses and more positive emotional responses during the intervention, will feel respected during their interactions with the workers, and will be engaged in the assessment and decision-making process. In addition, as a result of the assessment and services, formal and informal supports will be increased and family functioning will improve. These short-term changes will lead to intermediate changes: fewer families will be re-reported to DHS and fewer children will be removed from their homes and placed into foster care. In particular, the number of children removed from their homes who stay in foster care for short periods of time before being returned home may be reduced as more children are served safely in their own homes. The implementation of DR will also lead to distal outcomes, including a stronger relationship between child welfare and community partners, reduced disproportionate representation of children of color in foster care, fewer children who are taken into substitute care and decreased time to permanency for children taken into substitute care.

Figure 3. Oregon Differential Response program logic model



1.2 Research questions

In order to test the hypothesized relationships between Differential Response inputs, outputs, and outcomes, DHS is conducting a program evaluation that will include a process evaluation, an outcome evaluation and a cost analysis. The evaluation will attempt to answer the following research questions:

Research questions related to DR implementation:

1. How was each of the implementation components described in the framework developed by the National Implementation Research Network (NIRN)¹ addressed during the stages of the implementation process?
2. Is the coaching strategy effective in supporting staff in obtaining and maintaining fidelity to the DR model?
3. Is DHS adequately staffed to practice the DR model?
4. Are there differences in DR implementation across counties?
5. Are there differences in DR implementation across cultural and ethnic groups?
6. Are community and external partners involved in Differential Response implementation?
7. Are culturally responsive partners involved in the implementation of Differential Response?
8. Are the roles of DHS and community partners in keeping children safe clearly defined?
9. Is the coordination between DHS and community partners effective?
10. Do workers feel more supported by community partners?
11. How has Differential Response changed the nature of the relationships between DHS and community organizations?
12. Are service providers available for all families, including those in rural regions?
13. Are available services culturally responsive?
14. Are culturally responsive providers available for all families, including those in rural regions?
15. How is the service array, including Strengthening, Preserving, and Reunifying Families services, System of Care, In-Home Safety and Reunification, and other child welfare contracted services supporting the vision and goals of Differential Response?
16. Which implementation strategies were most effective? Least effective?

Research questions related to DR model fidelity:

1. What does Differential Response in Oregon look like?
2. How has worker practiced changed in counties that have implemented DR?
3. To what degree is each of the core components of the Differential Response Initiative implemented with fidelity to the practice model? Does fidelity vary across counties or districts?

¹ Fixsen, D.L., Naoom, S.F., Blasé, K.A., Friedman, R.M., & Wallace, F. (2005). *Implementation research: A synthesis of the literature* (FMHI#231). Tampa, FL: University of South Florida, Louis de la Parte Florida Mental Health Institute. The National Implementation Research Network.

- a. Are families involved in decision-making about services?
 - b. Does the Strengths and Needs Assessment help identify families' needs?
 - c. Are identified strengths being utilized?
 - d. Are families utilizing available services?
 - e. Are the services offered consistent with the assessed needs and interests of the family?
4. Who are the families that decline services, and how do they differ from families that accept services?
 5. What are the barriers to receiving and completing services?
 6. What processes are being used to prevent entry into foster care?
 7. What processes are being used to enhance permanency?
 8. How has Differential Response influenced families' perceptions of the cultural responsiveness of DHS and child welfare?

Research questions related to Oregon Safety Model fidelity:

1. Are DHS staff using the Oregon Safety Model with fidelity?
2. Does fidelity to the Oregon Safety Model vary by county? By district?

Research questions related to CPS practice:

1. How satisfied are workers with the amount of training they have received? Are there areas in which they would like to receive additional training?
2. How satisfied are workers with the amount and type of supervision they currently receive?
3. How satisfied are workers with the amount and type of coaching they currently receive?
4. How do caseloads affect worker practice?
5. How satisfied are staff with their jobs overall? Do they intend to remain in their current positions or within their current agency?
6. Does CPS practice vary between counties and has it been affected by the implementation of Differential Response?
7. Does organizational culture vary between counties and has it been affected by the implementation of Differential Response?

Research questions related to outcomes:

1. Are there differences in engagement between families who receive an alternative response (AR) and similar families who receive a CPS assessment in a non-DR county?
2. Are there differences in satisfaction with CPS between families who receive an alternative response (AR) and similar families who receive a CPS assessment in a non-DR county?
3. Are there differences in formal and informal community supports between families who receive an alternative response (AR) and similar families who receive a CPS assessment in a non-DR county?
4. Are there differences in family functioning between families who receive an alternative response (AR) and similar families who receive a CPS assessment in a non-DR county?

5. Are there differences in the rates of maltreatment re-reports between families who receive an alternative response (AR) and similar families who receive a CPS assessment in a non-DR county?
6. Are there differences in foster care entries and re-entries between children in families that receive an alternative response (AR) and children in similar families that receive a CPS assessment in a non-DR county?
7. Are there differences in engagement between families who receive a traditional response (TR) in a DR county and similar families who receive a CPS assessment in a non-DR county?
8. Are there differences in satisfaction with CPS between families who receive a traditional response (TR) in a DR county and similar families who receive a CPS assessment in a non-DR county?
9. Are there differences in formal and informal community supports between families who receive a traditional response (TR) in a DR county and similar families who receive a CPS assessment in a non-DR county?
10. Are there differences in family functioning between families who receive a traditional response (TR) in a DR county and similar families who receive a CPS assessment in a non-DR county?
11. Are there differences in the rates of maltreatment re-reports between families who receive a traditional response (TR) in a DR county and similar families who receive a CPS assessment in a non-DR county?
12. Are there differences in foster care entries and re-entries between children in families that receive a traditional response (TR) in a DR county and children in similar families that receive a CPS assessment in a non-DR county?
13. Are there differences in the length of time to permanency for children who entered foster care following an alternative response (AR) compared to similar children who entered foster care following a CPS assessment in a non-DR county?
14. Are there differences in the length of time to permanency for children who entered foster care following a traditional response (TR) compared to similar children who entered foster care following a CPS assessment in a non-DR county?
15. Do child and family outcomes vary by geography? By racial or ethnic group?
16. Is family engagement related to outcomes (re-reports, removals)?
17. What services are most effective in achieving DR goals (Strengthening, Preserving, and Reunifying Families Services, In-Home Safety and Reunification Services, System of Care services, Foster Care Prevention funding, non-DHS services)?
18. Is disproportionality in the system reduced following the implementation of DR (screening, track assignment, service referrals and acceptance, referrals to community services, track changes, child removals, length of placement)?
19. How has the implementation of DR affected agency timeliness?
20. Has DR increased or decreased the number of families involved in the child welfare system?

Research questions related to the costs associated with DR:

1. What are the short-term and long-term costs and benefits of a DR approach?
2. What resources are needed to establish DR as a sustainable practice in Oregon?
3. Does resource need and availability vary by region (urban versus rural)?

1.3 Institutional Review Board (IRB) approval

Institutional Review Board (IRB) approval from the University of Illinois at Urbana-Champaign (UIUC) IRB must be obtained before any data collection with human subjects can occur. The CFRC has successfully sought and received IRB approval for large, multi-component evaluations, and is very familiar with the required IRB submission forms and procedures. The UIUC IRB meets once per month to review non-exempt IRB applications. Submissions to the UIUC IRB require the completion of an IRB application form, along with finalized copies of all recruitment materials, data collection instruments (surveys, interviews, focus group protocols), consent forms, and survey reminders that will be used with research participants. Therefore, IRB submission cannot occur until all data collection instruments, associated recruitment materials, and consent forms have been finalized. It therefore becomes important to finalize the data collection instruments as soon as possible to avoid delays in data collection while waiting for IRB approval. In order to expedite the process, we anticipate submitting separate IRB applications for the site visit data collection, the parent survey, and the statewide staff and stakeholder survey.

2.0 PROCESS EVALUATION

The process evaluation of the Oregon Differential Response Initiative will include several components, including 1) an implementation evaluation of the DR program that will document and describe the program implementation process, 2) a fidelity assessments of the DR model, and 3) a fidelity assessment of the Oregon Safety Model within counties that have implemented DR. By describing or measuring the inputs and outputs described in the Oregon Differential Response logic model, the process evaluation will provide information that will help explain the results of the outcome evaluation. In addition, collecting and reporting information on program implementation and functioning will allow program managers and administrators to make mid-course modifications if early feedback suggests that things are not working as anticipated. The process evaluation will use a mixed-methods approach that will combine analysis of administrative data; qualitative interviews and focus groups; and survey data from a variety of informants, including caseworkers, supervisors, managers, community partners, and service providers. The data collection methods for each component of the process evaluation are described in the following sections, followed by a table that summarizes the measures that will be used in the process evaluation.

2.1 Implementation Evaluation

The implementation evaluation will be guided by the implementation science framework developed by Dean Fixsen and his colleagues at the National Implementation Research Network (NIRN). The purpose of the implementation evaluation is to examine the Oregon Differential Response Initiative through each of the stages of implementation: exploration, installation, initial implementation, full implementation, and innovation and sustainability. The program will be described by paying attention to the seven core drivers (or components) that influence the effective use of evidence-based programs by practitioners in human services: staff selection, staff training, ongoing supervision and coaching, staff performance evaluation, decision-support data systems (e.g., quality improvement information), facilitative administration (e.g., leadership), and systems intervention (e.g., financial, organizational, and human resources). When correctly aligned, these core implementation drivers can greatly influence how well a program is implemented.

Data for the implementation evaluation will be collected through a series of site visits in the counties that have implemented DR. During the site visits, data will be collected through several methods:

- Document review of relevant materials such as training manuals or presentations, policy documents, agency contracts and monitoring tools, performance evaluation criteria, practice models, job descriptions, “minutes” or other notes from planning or steering committee meetings
- Focus groups with child welfare staff
- Focus groups with other key stakeholders, such as community partners, service providers, advisory groups, or legislators
- Interviews with key DHS staff and external consultants who were involved in DR implementation

Interview and focus group protocols will be adapted from those that were used in the Illinois Differential Response evaluation; questions will pertain to the following topics:

- Training
- Supervision
- Coaching
- Performance evaluation
- Aspects of practice such as engagement, assessment, service effectiveness
- Service provision, including how the existing service array supports the implementation of the Differential Response Initiative
- Collaboration between child welfare and other child and family-serving community organizations
- Contextual factors impacting implementation (other child welfare initiatives, worker caseloads)

For the three counties “Round 1” DR counties (Lane, Lake, and Klamath), site visits will be conducted during the initial implementation phase (early 2015) and again during the full

implementation phase (late 2016). For the four “Round 2” DR counties, site visits will occur in late 2015 and late 2016 or early 2017. The interviews and focus groups will be transcribed by a transcription service, and the transcripts will be uploaded into NVivo for analysis. Content analysis will be used to identify common themes that appear in the data across respondents. The results of the analyses can be compared across counties and by type of respondent to determine if there are differences.

2.2 Fidelity to the Differential Response model

In any program evaluation, it is critical to assess whether the programs, services, and activities were implemented with fidelity, that is, as originally designed or intended. Core components of the Oregon Differential Response model include:

- Screening and track assignment/re-assignment
- Timely worker contact with families
- CPS safety assessment (Oregon Safety Model)
- Family strengths and needs assessment
- Family involvement in assessment and decision making
- Targeted services to address identified needs
- Partnership between DHS, private agencies, and community organizations

Data for the fidelity assessment will be collected from several sources and through several different methods, including:

- administrative data;
- focus groups with CW staff in the counties that have implemented DR; and
- staff and stakeholder surveys.

2.2.1 Administrative data

If administrative data are reliably available, fidelity indicators can be developed to measure certain areas of practice fidelity:

- Timeliness of initial CPS worker contacts with families
- Timely completion of the comprehensive CPS assessment
- Percentage and types of children who are redirected from the AR track to the TR track
- Percentage of families with moderate to high needs who are referred for a Strengths and Needs Assessment
- Percentage of families with moderate to high needs who receive a Strengths and Needs Assessment
- Timely completion of the Strengths and Needs Assessment
- Number of face-to-face worker contacts
- Percentage of families that accept or decline services;
- If family accepts services, amount and type of services provided
- Length of case

The information needed to compute these fidelity indicators (e.g., report date, dates of initial and subsequent contact, assessment dates, track change dates, case close dates) are typically available in administrative data systems and therefore can be easily used to monitor system processes on a regular basis. If data are not readily available on some of these variables, such as service provision, additional data collection tools can be developed to supplement what is currently available. These new reports could either be placed “inside” current case management systems or could be located on the CFRC servers and accessed by workers through a link provided to workers in a monthly reminder email.

2.2.2 Site visits in counties that have implemented DR

Site visits will be conducted in the counties that have implemented DR as part of the implementation evaluation (see section 2.1). During these site visits, information on DR practice (at both the micro and macro level) will be obtained from CW staff and community stakeholders. CW staff will be asked (when appropriate) about each of the different components of DR practice described in the list above:

- Screening and track assignment
- Contact with families
- Family engagement
- Safety assessment (Oregon Safety Model)
- Family strengths and needs assessment
- Redirecting families from AR to TR
- Family involvement in assessment and decision making
- Service provision
- Partnership between DHS, private agencies, and community organizations

The interviews and focus groups will be transcribed by a transcription service, and the transcripts will be uploaded into the software program NVivo for analysis. Content analysis will be used to identify common themes that appear in the data across respondents. The results of the analyses can be compared across counties to determine if there are differences.

2.2.3 Staff and stakeholder surveys

An online survey will be developed that will be administered annually to child welfare staff and community stakeholders in each county. The survey is described in more detail in Section 2.4.

2.3 Fidelity to the Oregon Safety Model

A third component of the Differential Response evaluation will be an assessment of staff fidelity to the Oregon Safety Model. In 2007, DHS developed and adopted a practice model based on concepts and principles of guided safety decision-making in collaboration with the National

Resources Center on Child Protective Services (NRCCPS).² In 2013, DHS collaborated with NRCCPS to implement an initiative aimed toward enhancing understanding and practice application of the Oregon Safety Model. Several activities were undertaken during this initiative:

- Changes to the OSM, including adding “severe” to the safety threshold
- Meetings with leadership and supervisors to discuss needs and strategies
- Curriculum conceptualization and writing with emphasis on practice application
- Identification of trainers and development of training materials
- Delivery of 4 days of classroom training to small groups of supervisors
- Coaching of trainers
- Debriefing sessions
- Intensive subject matter coaching for supervisors

Following the refresher training, NRCCPS conducted a case review of 31 cases submitted by supervisors as “some of their best work.” A case review tool was developed by NRCCPS to assess:

- Information collection in the 6 domains
- Application of the safety threshold criteria to safety threats
- Accurate safety decision-making
- Sufficient information documentation
- Safety plan development and sufficiency
- Application of in-home versus out-of-home safety plan criteria
- Appropriate use of protective actions

Based on the results of their case review findings, the staff from the NRCCPS made several recommendations regarding ongoing staff development and administrative supports to ensure accountability and sustainability.

The CFRC will provide an updated assessment of staff fidelity to the Oregon Safety Model through several data collection methods:

- Interview questions will be asked during site visits about fidelity to the Oregon Safety Model and the activities that have occurred since the prior case review in 2013.
- Questions related to the Oregon Safety Model can be included on the annual statewide survey (described in section 2.4)
- A case review methodology similar to that used by the National Resource Center on Child Protective Services will be used to gather information about model fidelity from a representative sample of cases.

For the case review, random samples of cases will be selected for review in each of the DR counties. Sampling strategies will be put in place to ensure that the samples include cases with

² National Resource Center on Child Protective Services. (2013). *Oregon Safety Model – Supervising to Safety: Review of Phase One*. Charlotte, NC: NRCCPS

in-home and out-of-home safety plans. A case review tool will be developed (in close consultation with DHS) that will guide case reviewers in gathering information on several domains including: 1) the six domains of safety, 2) precision in safety decision-making, 3) identifying moderate to high need families, 4) safety planning, and 5) conditions for return home, reunification, and expected outcomes.

2.4 Process evaluation of state CPS practice

As part of the process evaluation, DHS is interested in an assessment of “the state overall.” Thus, in addition to the qualitative data collection that will occur in the counties that have implemented DR, an online survey will be developed and administered to collect information on CPS processes throughout the entire state.

Child welfare workers, community partners, and service providers throughout the state will be included in the survey sample. Participants will be sent a recruitment letter that contains information about the purpose of the survey and a link to the online survey. The survey will be developed using the online survey software Qualtrics and will contain several sections to assess:

- opinions and knowledge of the DR Initiative
- readiness for practice change
- organizational culture and climate
- staff caseloads
- use of family-centered practice
- overall satisfaction with work and intentions to remain in their current positions
- satisfaction with training
- satisfaction with supervision
- service coordination between DHS and community partners
- service availability

Results will be compared by county, by district, and by worker characteristics such as age, gender, tenure on the job, and type of worker. In order to assess change over time, the same survey will be administered annually in 2015, 2016, and 2017. Statistical software such as SAS or Stata will be used to examine whether there are statistically significant changes in respondents perceptions over time.

2.5 Process evaluation data collection measures

Table 2 summarizes the measures and data sources that will be used to collect information on each of the outputs in the logic model during the process evaluation.

Table 2. Measures/Indicators to be used in the process evaluation

Output	Measure/ Indicator	Data sources(s)	Collection interval
Staff are assigned reasonable workloads	Number of families/cases per worker	Administrative data	Ongoing
		Focus groups	Annually
		Statewide survey	Annually
Staff are trained	Qualitative descriptions of training	Focus groups	Annually
	Worker ratings of training	Statewide survey; Administrative data	Annually; Ongoing
Staff supervision	Qualitative descriptions of supervision	Focus groups	Annually
	Staff ratings of supervision	Statewide survey	Annually
Staff coaching	Qualitative descriptions of coaching	Focus groups	Annually
	Staff ratings of coaching	Statewide survey	Annually
Agency leadership support	Qualitative descriptions of program leadership	Focus groups, interviews	Annually
Community partners and service providers are engaged	Qualitative descriptions of relationships with community partners and service providers	Focus groups	Annually
	Ratings of service coordination	Statewide survey	Annually
Use of track assignment tool	Number of families assigned to AR and TR tracks by county over time;	Administrative data	Ongoing
	Qualitative descriptions of the use of the track assignment tool	Focus groups with workers who use the track assignment tool	Annually
Track changes	Number of families that change tracks after initial track assignment	Administrative data	Ongoing
Timeliness of initial meeting with families	Number of days between report date and first face-to-face meeting with family	Administrative data	Ongoing

Worker contacts with families	Number of in-person meetings or other types of contact with families	Administrative data	Ongoing
Families involved in assessment and decision making	Qualitative descriptions of family involvement and engagement strategies	Focus groups	Annually
Safety assessment	Timeliness of safety assessment;	Administrative data;	Ongoing
	Qualitative descriptions of use of the Oregon Safety Model	Focus groups	Annually
	Fidelity to the Oregon Safety Model (case review tool)	Case file review	Annually
Strengths and needs assessment	Assessment completion date	Administrative data	Ongoing
	Families appropriately referred for an assessment		
	Families receive an assessment		
	Qualitative descriptions of use of assessment tool	Focus groups	Annually
Families offered services	Number of families offered services; Number of families that accept services	Administrative data	Ongoing
Services received by families	Number and type of services received per family; length of service	Administrative data*	Ongoing;
	Service availability	Focus groups; statewide survey	Annually

*depending on availability

3.0 OUTCOME EVALUATION

3.1 Defining the DR treatment groups

CPS practice in counties that have implemented DR will be different in a variety of ways than in counties that have not implemented DR, including an enhanced emphasis on family engagement and additional service provision among families with no safety concerns following the comprehensive CPS assessment. Although the practice changes associated with the AR track are more comprehensive, practice in the TR track will also differ from CPS practice in counties that have not implemented DR, suggesting the need for two separate treatment groups: 1) families in DR counties that are assigned to the AR track and 2) families in DR counties that are assigned to the TR track.

The definition of these two treatment groups raises the question of what to do with the families that are screened in, initially assigned to AR, but then re-assigned to TR due to safety concerns during or after the comprehensive CPS assessment. Some families will be re-assigned from AR to TR soon after the initial meeting with the CPS worker and will have an experience more similar to that of a TR case, while others may be re-assigned after going through the entire comprehensive CPS assessment as an AR case. No matter when they switch tracks, however, all families that are switched from AR to TR will have a disposition and will be entered into the Central Registry, similar to other TR cases. Since these families are distinctly different from both AR and TR cases, they will be treated as a third group and their outcomes will be tracked separately from those in the AR and TR treatment groups.

According to the Oregon DHS *2013 Child Welfare Data Book*, there were 3,565 assessments completed in Klamath, Lake, and Lane Counties in 2013. In order to estimate the approximate size of the AR and TR samples, we assume that 50% of the families referred for assessment in these counties will be assigned to the (AR) track. Using 2013 data and assuming 50% assignment to the AR tracks, we estimate that approximately 1,750 families will be assigned to the AR track and the TR track each year across Klamath, Lake, and Lane Counties (see Table 3).

Table 3. Estimated number of families in the AR and TR samples in Klamath, Lake, and Lane counties

	Klamath	Lake	Lane	Total
Assessments in 2013	1,040	84	2,441	3,565
Families assigned to AR (50%)	520	42	1,220	1,782
Families assigned to TR (50%)	520	42	1,220	1,782

Similar estimates for the second cohort of counties that will implement DR in April 2015 are shown in Table 4. We estimated that approximately 2,250 families will be assigned to the AR and TR tracks in the Round 2 counties each year.

Table 4. Estimated number of families in the AR and TR samples in Lincoln, Linn, Benton, and Washington counties

	Lincoln	Linn	Benton	Washington	Total
Assessments in 2013	371	960	202	3,021	4,554
Families assigned to AR (50%)	185	480	101	1,511	2,276
Families assigned to TR (50%)	185	480	101	1,511	2,276

These calculations provide an estimate of the total number of families that will be included in the AR and TR samples each year in the Round 1 and Round 2 counties. We anticipate that data collection for Round 1 counties will begin in May 2015, after we have obtained IRB approvals, and will continue through February 2017, at which point we will begin data analysis for the final report that is due in June 2017. During this 22 month period, approximately 3,300 Round 1 (Lane, Lake, and Klamath) families will be assigned to each of the AR and TR tracks. Round 2 counties will implement DR in April 2015, and we recommend starting data collection in these counties in July 2015 and continuing until February 2017. During this time period, approximately 3,750 Round 2 families will be assigned to each of the AR and TR tracks. This will result in an overall sample size for both the AR and TR samples of approximately 7,050.

We will later match each of the AR families and TR families with a similar family from a county that has not yet implemented DR using Propensity Score Matching (described in section 3.2), for a total sample size of approximately 14,000.³ This number constitutes a very large sample that provides ample statistical power for all the analyses proposed, as well as subgroup analyses that compare outcomes by geographic region and racial/ethnicity.

3.2 Defining the comparison groups

Rigorous evaluations require a comparison group that is as closely equivalent to the treatment group as possible, so that any differences that are observed between the two groups can be attributed to the treatment intervention. Random assignment of subjects to treatment and comparison conditions is considered the most effective way to achieve equivalence between the two groups; however, random assignment can be extremely difficult to implement in the field, especially in child welfare programs. Ethical considerations often prevent the treatment intervention from being withheld from some families, and some child welfare staff dislike random assignment and will occasionally find ways to circumvent it in order to provide treatment to families that they feel would benefit.

Propensity Score Matching (PSM) is an effective alternative method for constructing a comparison group that is statistically indistinguishable on all observed characteristics other

³ PSM does not always result in an acceptable match for every family in the treatment group. The matching rate will depend on the size of the comparison group population and its similarity to the treatment group. Families with no acceptable match will be dropped from the outcome evaluation analyses, which will decrease the sample size. However, even a 75% match rate would result in a total sample size over 10,000, which is quite large and would still allow us to do the type of comparisons described in section 3.4.

than treatment condition. In this method, children who do not receive the intervention are statistically matched with children who receive the intervention to produce intervention and comparison groups that are equivalent on all key characteristics. PSM is a two-step procedure. First, propensity scores are calculated for all eligible children in the population (both in the treatment and comparison groups) – these are scores that indicate the *likelihood* that children would receive the treatment, regardless of whether or not they actually did. In the second step, each child in the treatment group is matched with another child *with a similar propensity score* who did not receive the treatment. This produces matched pairs. Propensity score matching typically produces two samples that are statistically indistinguishable on most or all variables that relate to outcomes. It is reasonable then to attribute differences in outcomes between the groups to the impact of the treatment intervention. The one caveat is that PSM does not control for *unmeasured* pre-existing differences between the groups. But if one can be confident that the existing variables capture the important factors that can affect outcomes, this is a very rigorous method for selecting a comparison group.

PSM will be used to create matched samples for the AR and TR groups. Before beginning the PSM procedures, each of the DR counties will be matched to a non-DR county that is similar in terms of overall population, minority group representation, number of CPS assessments, and other relevant characteristics. Once each DR county has been paired with a similar non-DR county, the following steps will be completed to create a matched comparison group for the AR group:

- Using available data, propensity scores will be calculated for each family in the AR group. Families that switched from AR to TR will be included in the TR group during the matching process.
- Propensity scores will be calculated for each family that received a CPS assessment in the matched county.
- Each family in the AR sample will be matched with a family with a similar propensity score in the non-DR matched county.

Once the matching process has been completed for the AR group, the same procedures will be completed to match the families in the TR group with a similar family in the non-DR county:

- Propensity scores will be calculated for each family in the TR sample.
- Propensity scores were already calculated for each family in the matched county.
- Each family in the TR sample will be matched with a family with a similar propensity score in the matched county. Families that have already been matched to an AR family will be removed from the population and will therefore not be able to be matched to a TR family.

Once the two-step matching process is completed, there will be four groups in the outcome evaluation:

1. AR families
2. AR-matched families from non-DR counties
3. TR families
4. TR-matched families from non-DR counties

The outcome evaluation will compare the outcomes of the AR families (group 1) with the AR-matched families in non-DR counties (group 2), and the TR families (group 3) with the TR-matched families in non-DR counties (group 4).

	DR County	Non-DR county
AR Matching	Families assigned to Alternative Response	Families who received CPS assessment and have similar propensity score to AR families
TR Matching	Families assigned to Traditional Response	Families who received CPS assessment and have similar propensity score to TR families

3.3 Data collection sources and measures

The short-term, intermediate, and distal outcomes that will be included in the outcome evaluation are listed in the logic model. Short-term outcomes include:

- Parent emotional responses
- Parent feeling of respect
- Parent engagement in assessment and decision making
- Parent satisfied with their caseworker and services
- Parent informal and formal supports
- Family functioning

Intermediate outcomes include:

- Subsequent screened in maltreatment reports
- Subsequent substantiated maltreatment reports
- Subsequent child removals

Distal outcomes include:

- Fewer children living in substitute care
- Reduced disproportionate representation of child of color in child welfare
- Strengthened relationships between community partners and child welfare
- Decreased time to permanency for children taken into foster care

Administrative data can be used to measure some of these outcomes, including maltreatment re-reports, child placements into substitute care, and length of time to permanency. Subgroup analysis of these rates among children of different racial and ethnic groups can determine the effects of DR on disproportionality. Data on other outcomes will be collected from parents through a parent survey and parent interviews.

3.3.1 Parent survey

Because the overall sample size of the evaluation is so large (over 14,000 families), it will be infeasible to distribute surveys to every family and will be necessary to select sub-samples from each of the four groups that will receive surveys (AR group and AR matched comparison group, TR group and matched comparison group). A power analysis will be conducted to determine the minimum sample size for the survey sample that will allow us to detect an effect of a given size with a given degree of confidence. Since we know that response rates for mail surveys in this population are low,⁴ we will adjust the number surveys that are distributed to account for low response rates. For example, if the power analysis suggests that we need to have at least 100 families in each group to achieve 80% power at a 5% significance level and we estimate a 25% response rate, we would want to distribute surveys to 400 families in each group in hopes of getting back 100 surveys. Once we know how many surveys we want to distribute in each group, we develop a method to systematically sample enough families from the larger population. Using the same example as above, if we need to distribute 400 surveys to families in the AR group and there are 4,000 families in the AR group, we would want to distribute a survey to every 10th family that is assigned to the AR group. This sampling strategy (selecting every 10th family) would be applied at the county level so that the number of families sampled from each county is proportionate to their overall representation in the AR population. Because it is of interest to DHS to compare the experiences of families of different racial and ethnic backgrounds, it may be desirable to over-sample African American and Native American families in the survey sample.

The parent survey will contain measures of: 1) parent emotional responses following the initial in-person meeting with CPS; 2) parent satisfaction with their caseworker and the services they received, 3) parent engagement with their worker, 4) parent experience of family-centered practice (parent involvement in planning and services, joint decision-making, cultural competence), 5) parent informal and formal supports and services, 6) family functioning, and 7) socio-demographic information such as income and education level. Parent engagement will be measured using Yatchmenoff's (2005)⁵ *Parent Engagement in CPS scale*, a 19-item scale developed specifically for use with child welfare-involved parents. Other measures will be adapted from the Illinois DR parent survey or selected from existing measures that have been previously used in child welfare research.

Paper copies of the survey will be distributed to the selected families by CW staff in the DR and matched non-DR counties. It will be necessary to develop an automated program that will select and identify for workers which families to hand the surveys to. Once parents complete the surveys, they will be mailed to the CFRC and the data will be entered into an SPSS database. Parents will also be given the option of completing an online version of the survey or calling a toll-free number to have the questions administered to them over the phone by a CFRC

⁴ Response rates for parent surveys in previous DR evaluations have ranged from 20-30% of those sampled.

⁵ Yatchmenoff, D.K. (2005). Measuring client engagement from the client's perspective in nonvoluntary child protective services. *Research on Social Work Practice, 15*, 84-96.

researcher. All parents who complete the survey through any method will receive an incentive (a gift card to a retail store such as Wal-Mart).

3.3.2 Parent interviews

In addition to the parent survey, qualitative interviews will be conducted with parents in each of the four groups (AR and matched comparison group, TR and matched comparison group) who completed the parent survey and indicated that they would be interested in participating in additional research activities. The sample will be stratified by county. Because DHS is interested in examining the implementation of DR across different cultural groups, the sample will also be stratified by race and ethnicity to ensure that the perceptions of all parents are represented in the results. The interviews will be conducted by telephone and will gather in-depth information from parents about their perceptions of their service experience, including their relationship with their worker(s) and the services they received or did not receive. The interview protocol will be adapted from the one that was utilized in the Illinois Differential Response evaluation. The parent interviews will take approximately 45 minutes to complete and parents who participate will receive a retail gift card.

Table 5. Measures/Indicators to be used in the outcome evaluation

Outcome	Measure/ Indicator	Data sources(s)	Collection interval
Short-term outcomes			
Parent emotional responses	Emotional response checklist	Parent survey	Ongoing
Parents feel respected	Likert scale question on survey	Parent survey	Ongoing
Parents are involved in the assessment and decision making	Likert scale question on survey	Parent survey	Ongoing
Parents are satisfied with services	Likert scale questions on survey	Parent survey	Ongoing
Parents' informal and formal supports are increased	Protective Factors Scale	Parent survey	Ongoing
Family functioning improves	Perceived Stress Scale Child trauma measure Protective Factors Scale Family Resources Scale*	Parent survey	Ongoing
Intermediate outcomes			
Maltreatment re-reports	# screened-in maltreatment reports following case closure	Admin data	Ongoing
Track assignment of re-reports	% screened-in re-reports assigned to AR and TR	Admin data	Ongoing
Substantiated	% of re-reports assigned or	Admin data	Ongoing

maltreatment re-reports	switched to TR that are substantiated		
Child removals	# children removed from home	Admin data	Ongoing
Distal outcomes			
Fewer children living in substitute care	# children living in substitute care placements	Admin data	Ongoing
Reduced disproportionate representation of child of color in child welfare	Disparity index	Admin data	Ongoing
Strengthened relationships between community partners and child welfare	Qualitative descriptions of relationships from community partners	Focus groups	Annually

*not all of these scales will be included on the parent survey

3.4 Data analysis

Descriptive statistics (e.g., means, standard deviations, etc.) will be calculated for the sample overall and within demographic characteristics of interest, such as geographic locations and the racial-ethnic groups. Statistical models will be constructed to test for statistically significant differences on outcome between the AR group and its matched comparison group, and between the TR group and its matched comparison group. Logistic regression models will be used with event-based, categorical outcomes such as subsequent maltreatment models, and ordinary least square regression models will be used with measurement-scale-based, continuous outcomes such as measures of family functioning. Child and family characteristics will be included in the statistical models both because of the value of assessing their impact on outcomes, and because statistically accounting for their effect increases the precision of the estimates of the differences in outcomes between the AR and TR groups and their respective matched comparison groups. Propensity score matching dramatically reduces the probability that any differences between the groups are attributable to pre-existing differences between the two treatment groups (AR and TR) and their matched comparison groups. County can be included as a factor in statistical models to test for overall differences between counties.

4.0 COST ANALYSIS

The Oregon DHS is interested in a cost analysis that includes an accounting of the resources necessary to implement and maintain DR, as well as an analysis showing the benefits provided. CFRC proposes a two-pronged approach to the cost analysis that includes:

- an analysis of the resources (types and amounts) necessary to implement and maintain DR in each of the three counties Round 1 counties and four Round 2 counties,
- a comparison of the average total cost-per-family of serving a family through AR and a similar family in a non-DR county, and
- a comparison of the average total cost per-family of serving a family through TR and a similar family in a non-DR county.

4.1 DR start-up and maintenance costs

CFRC will gather information from DHS staff to estimate the level of effort and resources that were spent to implement DR in each of the seven counties. Through interviews with key personnel, document review, and administrative data (if available), information will be gathered on the amount of money, number of people, type of people, and time spent on each of the following implementation activities:

- exploring DR models in other states
- designing the DR program and developing program guidelines
- developing screening and eligibility tools and assessment tools
- developing training modules and training workers
- updating policy and procedure manuals
- updating IT systems
- enhancing the service array
- community outreach
- communication

The results will be compiled to estimate the total level of effort and cost to implement DR.

4.2 Per-case cost analysis

Methodology similar to that used in the Illinois DR cost evaluation will be used to compare the average total cost of serving a family through AR, TR, and a CPS assessment in a non-DR county, both during the initial case and during a standard follow-up period. Due to the difficulty of obtaining cost data, a sample of cases will be randomly selected for the cost analysis from the larger population of AR, TR, and matched comparison cases in the outcome evaluation. Costs will be calculated for two mutually exclusive time periods: initial costs are those that occur between the initial report date through the date the case is closed by DHS or the community provider, and follow-up costs are those that occur starting the day after the initial case closes through 365 days after the initial report.

Two types of costs during the initial case will be examined: the costs of the *worker's time* spent on direct services to the family and the costs of *services* provided to the families that are paid for by the DHS.

- The costs of worker time will be computed by multiplying the number of hours spent during the initial case by the worker's hourly rate. If the amount of time that workers spend during the case is not available in administrative data, it can be estimated by developing standardized multipliers for each type of worker activity and applying these multipliers to the number of times the worker completes each activity with a family. Similarly, if hourly rates are not available for each worker, an average hourly rate can be computed for each types of worker.
- Data on service costs will be gathered from administrative data.

For each family in the sample, the costs of worker time and service costs will be added to determine the total costs to serve the family during the initial case.

Several types of costs can occur during the follow-up period:

- the family may be re-reported and an additional CPS assessment may occur,
- the family may have moderate to high needs and receive services through a community provider, or
- a child may be placed into substitute care and receive foster care services.

Administrative data will be used to track which families in the sample experience any of these outcomes. Then, using methodology similar to that used in calculating initial case costs, the costs of worker time and direct services to families will be computed from the day after the initial case closes through 365 days of the initial report date. This will be done for each family that is randomly selected into the cost analysis samples. This methodology will allow us to report on the following cost outcomes:

- Range and average of total costs for initial AR cases and similar cases in non-DR county
- Range and average of total costs for initial TR cases and similar cases in non-DR county
- Range and average of follow-up costs for AR cases and similar cases in non-DR county
- Range and average of follow-up costs for TR cases and similar cases in non-DR county
- Range and average of total costs for AR cases and similar cases in non-DR county
- Range and average of total costs for TR cases and similar cases in non-DR county

5.0 POTENTIAL OBSTACLES

Few program evaluations go exactly as planned. In this section we anticipate several challenges that may arise, and posit strategies for avoiding them or addressing them as soon as possible if they do arise. One common challenge is incomplete or **missing data**. Variables in databases in public systems are frequently missing data. This can occur for a variety of reasons, including worker non-compliance with documentation requirements, families moving or not being available on follow-ups, outdated client information systems, data entry errors, difficulties in matching and merging data from different sources, or variables not applying to certain

categories of cases. Missing data reduces sample sizes, and, more importantly, often biases samples, because cases with missing data are often systematically different from cases with valid data. CFRC has experience with methods for dealing with this challenge. We are familiar with methods for maximizing the data that can be extracted from databases. If it is difficult to match cases across databases by an ID variable, we can use probabilistic matching procedures to match records based on a high probability that cases with the same characteristics in two different databases actually pertain to the same family. We know statistical methods like multiple imputation to produce good estimates of missing data, and regression methods for estimating and controlling for the biasing effect of missing data.

A related problem is inadequate **sample size**. Samples need to be sufficiently large in order to detect differences between groups. Obtaining adequate sample size in program evaluation can be difficult if the number of families or children served is small (<100). This will not be a problem with the Oregon Differential Response evaluation, as the estimated sample size is well over 10,000. A sample of this size should provide more than enough statistical power to detect any differences between the AR and TR groups, as well as subgroups of interest.

One problem that is endemic to child welfare research is low parent survey **response rates**. Previous DR evaluation that have surveyed families have obtained response rates ranging from 20-30%, despite wide variation in the methods of survey distribution, the type and amount of the incentive, and the use of follow-up phone calls. Numerous strategies will be employed to increase the response rate of the parent survey in the OR evaluation, including large incentives, use of reminder postcards or phone calls, and online response options. However, it is important to be realistic about the expected response rate for the parent survey, and keep in mind that even the use of these strategies may not improve the rate above 30%. It is our opinion, that even surveys with low response rates provide useful information, especially if that information cannot be gathered in any other way.

6.0 DISSEMINATION OF FINDINGS

6.1 Consultation plan

The development of an effective and collaborative relationship between the evaluation team and the Oregon DHS Team will be essential to the success of the evaluation. Based on previous experiences, it is anticipated that the frequency of the communication between the evaluation and project teams will ebb and flow throughout the course of the project timeline, and will likely require frequent and intense communication during the first 6 months of the project, as decisions are made regarding the evaluation design, sampling plans, and measurement instruments. More frequent communication may also be necessary in the weeks leading up to the due dates of major deliverables, such as the annual interim and final evaluation reports. Past experience suggests that weekly or bi-weekly scheduled project phone calls during the initial project stages are necessary. Once the intense work involved in the initial stages is complete, teleconference meetings might be reduced to a monthly schedule. During these meetings, CFRC will update DHS about the progress of the ongoing evaluation activities, consult

in the analysis of the data and interpretation of the results, and if possible, provide interim findings and actionable recommendations based on the findings. The frequency and agenda of the regularly scheduled project meetings can be modified as needed to meet the evolving needs of DHS project staff.

6.2 Dissemination plan

The CFRC will provide DHS with quarterly progress reports, annual interim evaluation reports, and a final evaluation report according to the schedule in the table below.

Report	Due date(s)
Quarterly Progress Reports	April 15, 2015 July 15, 2015 October 15, 2015 January 15, 2016 April 15, 2016 July 15, 2016 October 15, 2016 January 15, 2017 April 15, 2017 June 30, 2017
Annual Interim Reports	December 15, 2015 December 15, 2016
Site Visit Reports	
Year 1 Site Visit Report (Cohort 1)	October 15, 2015
Year 1 Site Visit Report (Cohort 2)	March 15, 2016
Year 2 Site Visit Report (Cohort 1)	September 15, 2016
Year 2 Site Visit Report (Cohort 2)	April 15, 2017
Final Report	June 15, 2017

In addition to the required reporting to DHS that will occur throughout the evaluation period, the CFRC will participate in additional activities as requested to disseminate the results of the process and outcome evaluations to interested stakeholder groups within the state. These groups could include DHS staff, project steering committees, legislators, and the community at large. Written materials, such as research briefs, executive summaries, or newsletters, can be an effective way to disseminate the results of program evaluations to practitioners and legislators. Webinars provide another way to disseminate evaluation results to a wide audience in an efficient way. The CFRC is also very interested in collaborating with DHS to publish the results of the Oregon Differential Response Initiative evaluation in peer-reviewed journals.

6.3 Improving DHS operations

Early findings from the process evaluation will be provided to DHS so that administrators can assess how the program is functioning and which areas of practice would benefit from improvement. In particular, results from the first round of site visits on implementation drivers (staff selection, training, supervision and coaching, performance evaluation, quality improvement activities, and agency leadership) can be used to guide progress in areas where implementation fell short of expectations. In addition, results from the staff survey on workers' readiness for systems change, on agency culture and climate, and on worker satisfaction can be used to guide decisions about when and where to expand DR in the state. Finally, results from the fidelity assessment can pinpoint specific areas where worker practice is not meeting expectations and inform additional guidance, supervision, or training.

Figure1. Alternative Response Process and Decision Flow

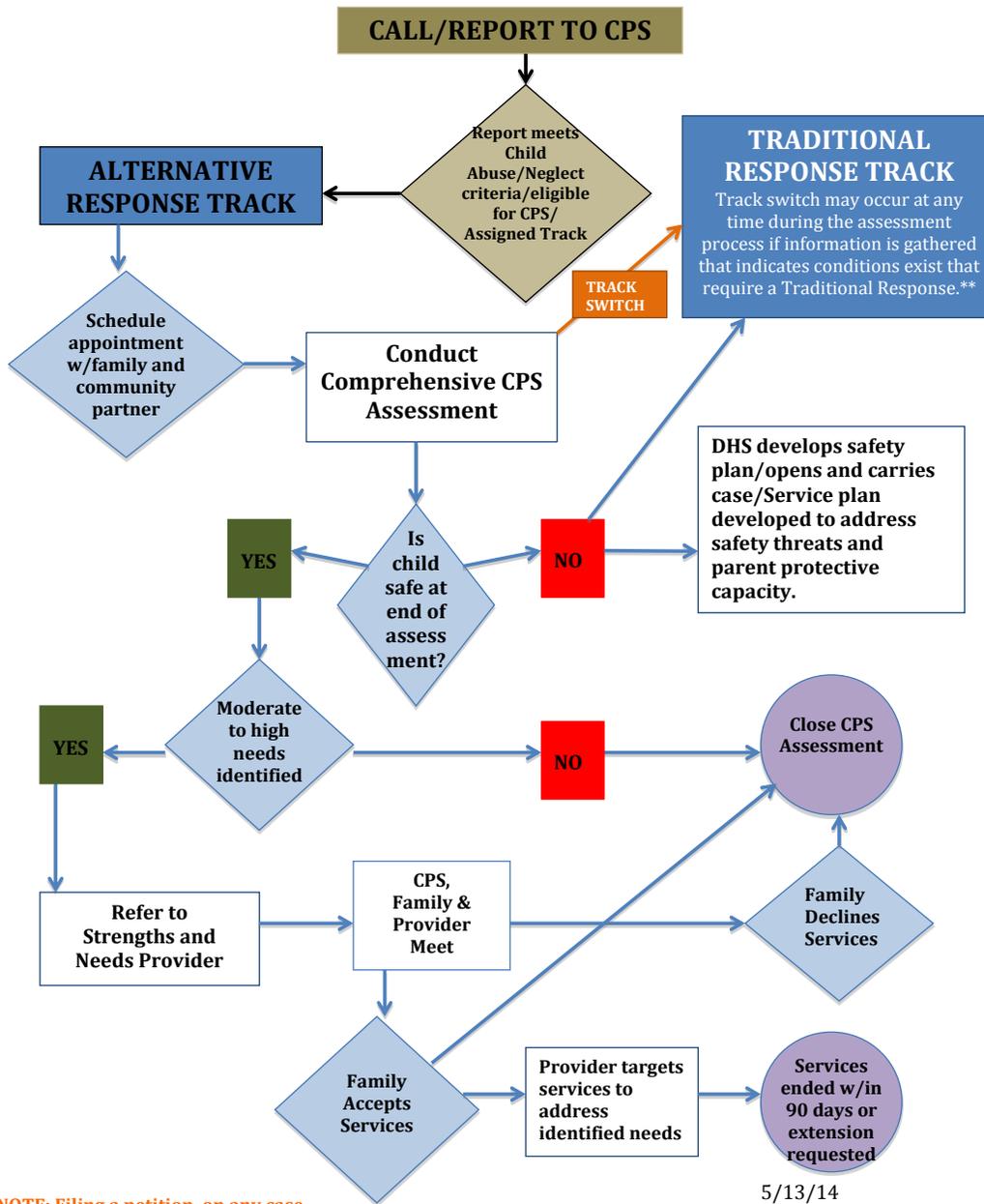
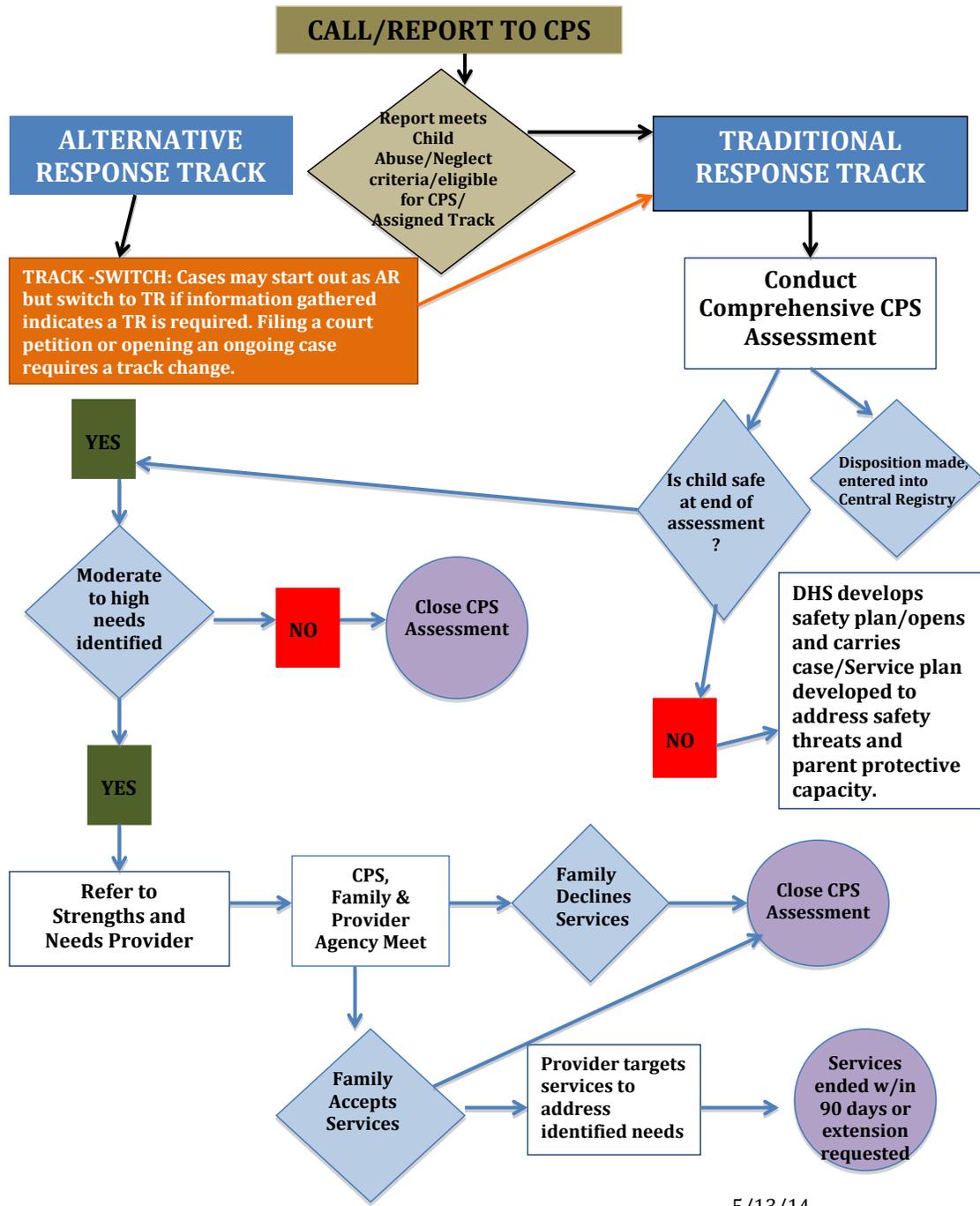


Figure2. Traditional Response Process and Decision Flow



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