California Partnerships and The Pathway to Prevent Child Abuse and Neglect Outcomes: A Collaborative Framework for the Family Development Matrix Assessment and Case Management Model (2015)

Authors
Jerry Endres MSW, Project Director, Family Development Matrix Outcomes Model, Matrix Outcomes Model, LLC and (retired) Director of the Institute for Community Collaborative Studies, California State University Monterey Bay,
Ignacio Navarro Ph.D., Associate Professor, California State University Monterey Bay, Department of Health, Human Services and Public Policy
Brad Richardson Ph.D., Research Director and Adjunct Associate Professor, National Resource Center for Family Centered Practices, University of Iowa, School of Social Work
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Abstract

The Family Development Matrix (FDM) outcomes model provides a strength-based, family decision making assessment model. The FDM collaborative structure in 22 counties of comprising family resource agencies, child welfare departments, child abuse prevention councils, public and non-profit organizations use a family assessment consisting of core family assessment measures. Interventions are aligned with each of the core indicators from the researched best practices, "The Pathway to Prevent Child Abuse and Neglect". The FDM uses a web-based system to integrate family and worker information for assessment, case management and outcome evaluation information. The California population using the FDM assessment and case management system has grown from 439 in 2009 to 21,000 families through 2015. Approximately 40% are child welfare differential response referrals. The FDM is registered with the California Evidence Based Clearinghouse as an assessment tool for child welfare (alternative response). The FDM history, community collaborative design process, assessment measures and their reliability, and the family engagement and outcome results are presented. The FDM discussion provides a contribution of how child welfare and their community partners have adapted to an outcomes model and expanded public/private partnerships for service delivery.

Key Words: family resource centers, prevention of child abuse and neglect, child welfare partnerships, differential response assessment, family engagement, family outcome change.

1. Introduction

The Family Development Matrix (FDM) model is an agency information and support tool providing a strength-based family assessment and case management model. The California Department of Social Services, Office of Child Abuse Prevention supported the FDM since 2005 with the goal of broadening and extending public/private partnerships that included a variety of county based agencies, included county welfare representatives, in tribal communities, and family resource centers to use a prevention outcomes model to prevent child abuse and neglect. The FDM was the designated family assessment and case management tool for these 22 community collaboratives. During the 2009-2015 period, the FDM provided each network of agencies with a core set of family assessment indicators accompanied with a strengths-based case management practice and database capabilities that allowed them to document and analyze their family outcomes. In this period, more than 21,000 families in 150 family support agencies received services based on their engagement with the FDM assessment and case management tool.

This paper describes the development and implementation of the FDM in California during 2009-2015. The FDM experience provides a contribution to the discussion on how child welfare services have adapted to an outcomes-based funding model and to the expansion of public/private partnerships in service delivery. The paper is organized as follows: After the introduction the second section provides a historical overview that led to the development of the FDM in California; The third section provides a description of the FDM model emphasizing the development of outcome-based collaboratives, the development and reliability of the core set of family status and engagement indicators, and the program services; The fourth section presents an overview of family outcome reports as measured by the FDM, while the fifth section concludes and provides future research directions.

2. Historical Overview

The Family Development Matrix as an assessment tool had its emergence during a period of changes in the field of child welfare and funding regulations at the federal and state levels that required a model that focused on the family, an emphasis on outcomes and increased capacity for public/ private partnerships providing services for families across California.

The field of child abuse prevention experienced an increased focus on the family as an integral part of the prevention and reunification efforts during the 80's and 90's. The Adoption Assistance and Child Welfare Act of 1980 was the original federal law that put family preservation services into child welfare to help keep children with their families to reduce out-of-home placement. Also, the Adoption and Safe Families Act (ASFA, PL. 105-89, 1997) to promote the adoption of children in foster care shortened the timeline child welfare workers had to work toward reunification with the families of children who have been placed in out-of-home care. These shifts in the field gave way to the development of a coalition of the family support field by advocating comprehensive services in community agencies serving at-risk families. (Ahsan, N. & Cramer, L., 1989;

Bruner, C., nd; Dunst, C.J., 1995; Family Support of America, 2003; Strategies, 2003 & 2008).

The increased interest in the family as the focus of prevention efforts was accompanied by changes in funding regulations at the federal and state levels. Most notably the creation of the FDM was influenced by the implementation of Results Oriented Management and Accountability (ROMA, NASCSP) formulas using what has become known as a "scales and ladders" model; and the Government Performance and Results Modernization Act (Office of Management and Budget, 2010) that updated aspects of the Government Performance and Results Act (GPRA, 1993) requiring state agencies receiving federal funds to utilize outcomes for performance reports.

At the state level, the California Legislature passed the Child Welfare System Improvement and Accountability Act (AB 636, California Department of Social Services, 2005 & 2007). This groundbreaking legislation was designed to improve outcomes for children in the child welfare system while holding county and state agencies accountable for the outcomes achieved. It provided through a Differential Response referral process a role for family resource centers, as a community partner, to help keep children safe, improve their family's situation across a holistic set of conditions and prevent their entering or re-entering the child welfare system (Oppenheim, 2005). These public/private partnerships with child welfare have expanded as tax supported children and family intervention resources shrink and as effective family resource center practices are evidenced (California Department of Social Services, 2005; Endres & Simmons, 2007, Endres, J. & Navarro, I. A. (2013). This public funding flowing into resource centers increased their need to document their outcomes and to evaluate their programs to comply with funding requirements.

Recognizing the need to build evaluation capacity across family resource centers prompted the California Department of Social Services, Office of Child Abuse Prevention (OCAP) to support the development of assessment tools. The FDM was chosen by OCAP as the preferred tool.

3. The FDM model

The FDM assessment tool model rests on 5 pillars: the collaborative design teams, the protocol, the empowerment plan, the indicators, and the program support services. Each of them is described in detail below.

3.1. Building a Family Development Matrix Design Team

Conceived as a model where local design and community ownership (Wessells, 2015) is essential for sharing decisions and resources. Each FDM community collaborative is a teambuilding process across a number of family support agencies (Melaville, A., 1994; Linden, R., 2002; Poulin, J., 2000; Brier-Lawson, 2001; Pickel, 1994; Rosenthal, B., 1994). Before implementing the FDM each collaborative design team is trained to: a) use the FDM family assessment and outcomes tool for family assessment and case management; b) design a shared outcomes model to improve program support services with families in their community; c) evaluate outcome results for family, agency and funder reporting. An initial step is to develop a "collaborative

prevention philosophy" with a vision, shared values and agency leadership roles (Matrix Outcomes Model, http://www.matrixoutcomesmodel.com/cdp.php). Their collaborative prevention plan includes team objectives to address cross-agency challenges and an action plan to implement the FDM shared outcome measures.

Collaboratives are organized around a collaborative coordinator who communicates with agency coordinators. The agency coordinators responsibility are maintaining their participation through all elements of a shared outcomes design process. These include: a) selection of family outcome indicators specific to their agencies in the collaborative, agreeing to a core set shared across agencies, b) align program support services (interventions) to each of the indicators, c) maintain a practice protocol and agree on client coding for data tracking, d) maintain staff training, e) monitor data integrity and analyze and use data reports for program improvement and community support. A design process that can last from 6 weeks to 3 months.

3.2 The FDM's Practice Protocol

Collaborative design teams share a written protocol and client codes for data entry. During the first 30 days of engagement the family case worker/family advocate conduct an assessment of family conditions across the core set of 20 indicators. Assessment and case management forms are utilized in English, Chinese, Spanish, Vietnamese and Hmong languages. With a standard protocol practice the FDM is used by paraprofessionals as well as licensed professionals. They are trained to conduct an assessment with the family member(s). Together with the family, a) identify the status level within each indicator that best represents their situation, b) identify family strengths and issues of concern using the computer programmed "visit summary", c) to make decisions together for interventions and agency support services, d) to create a family–directed empowerment plan, e) then use the Matrix database to track family and worker activity for case management, and, f) subsequently to evaluate family progress for reporting.

The FDM practice protocol specifically defines the building of a family/worker relationship to conduct assessments using probing questions to stimulate a dialogue across the core set of indicators. When this data is entered the Matrix database displays a visit summary of their assessment scores in two parts – areas of strengths and the issues for concern based on the scoring differences between in-crisis and at-risk compared to stable and safe/self sufficient scores. Following the strength-based assessment, the agency based programs and localized services like nurturing parenting, father involvement, trauma therapy, healthy families, depending on the family assessment, are selected in consultation with the family's desire and willingness to be engaged. Their practice is to discuss what is working well and what may not be working for the family and where their goals may be using the family's knowledge, skills, and abilities as improvement support in the context of overcome challenges. This information is integrated into the family empowerment plan.

3.3 The Family Empowerment Plan

The Transtheoretical Model for Change (Prochaska JO, Norcross JC, Di Clemente CC, 1994) forms a basis for principles of the FDM approach developed from over 35 years of scientific research on intervention development and empirical studies on empowerment and engagement models. The Family Empowerment Plan outlines goals for improvement and actions that will be taken. The case worker assists the family in assessing its status on the indicators. In consultation, the worker and family identify indicators of particular strength and those where improvement is needed. In this manner, the capacity of the family to achieve strengths on some indicators provides a foundation for discussion and instilling confidence that similar strengths can be developed in other areas currently identified as "in need" (i.e., in-crisis or at risk). Using the indicators to guide the focus of actions to be taken, the integration of evidence based interventions and local programs and services form the basis for assistance in achieving family-directed goals with mutually agreed upon roles and activities for family members and the case worker.

This approach is thoroughly described in the protocol and is further supported by a results report showing indicators at each assessment for review and further planning. In this manner, the case worker and family determine how well and in what way progress is being made from baseline assessment (conducted within the first 30 days) through each quarterly assessment throughout participation of the family. Each of these steps were drawn from the evidence base of case management and home visitation (e.g., Hawaii Healthy Start; Healthy Families America; FRIENDS; cf., Fuller, T., 2000; Dunst, C.J., 2002).

3.4 The Core Indicators

At the heart of the FDM are the critical life domains measured as indicators. In 1997 the Institute for Community Collaborative Studies at California State University, Monterey Bay convened a Matrix Design Team (MDT) to address the demands emerging at the time for training and technical assistance, reliability and validity testing and incorporating best practices for family support evaluation. The work of the MDT resulted in the identification of important family functioning domains and categories within those domains forming scales to comprehensively assess family strengths and needs. From 2005 to 2008 collaboratives piloted the indicators they determined to be best for their practice. Beginning in 2009, all agencies contracted to serve families under the state child welfare agency (OCAP) were required to adopt a set of common indicators (i.e., core indicators). At the time there were more than 100 indicators (many addressing domains beyond child welfare). Child welfare agencies and family resource centers using the FDM selected the 20 core indicators to be used as common measures that were essential for the child welfare service population. These 20 indicators were tested for

reliability; the list of indicators and their reliabilities are discussed below and presented in table 1[1].

During a family assessment a family's score in each of the indicators responds to a negotiated agreement through discussion between the case worker/advocate and the family being served. Each indicator has four status levels with definitional statements that describe conditions or behaviors. Through discussion the score that best describes the current family situation of the four status levels is chosen; the four specific status levels for each indicator used to facilitate the scoring discussion is provided below (see appendix A). Measurement aligns with a continuum of in-crisis, at-risk, stable and safe/self-sufficient:

Safe/Self-Sufficient status level: Indicates that a family is largely able to address its own immediate needs and to plan and act on its future. Long-term maintenance at this level is a goal. In this example, the family is generally secure as a result of its own efforts and has a clear vision of its goals. Motivation comes from within the family and any interventions are to maintain their level of achievement.

Stable status level: The family has begun to plan and use internal resources. This status level is selected when the family is no longer is in danger, and is ready to change as needed to be more secure and safe in the specific indicator area. Planning occurs for the family's future. Supportive services are provided as needed to assist the family in implementing their plans.

At-Risk: The family is secure from immediate disaster and with planning and use of external resources and with initial action the family can continue an upward trend. Continuing intervention and program support provides a platform on which the family can build its plans and take action for improving circumstances.

In-Crisis: Reflects a family in survival mode. Resources are dangerously inadequate and the family does not have the will or the breathing room to plan for the future. Family systems may have collapsed or are in immediate danger of collapse. Strong outside intervention and program resources is often required to move the family to at least the "At-risk" level and higher.

Indicator reliability and predictive validity

Since the creation of the original set of indicators, intra-rater and inter-rater reliability studies were undertaken using case scenarios with participation of MDT member agencies. The original reliability study conducted in 1999 established a set of highly reliable indicators that collaboratives could choose from (1999, Endres, Richardson and Sherman). A second reliability study was conducted in 2014 to assess the reliability of the core set of 20 indicators.

[1] It is important to note that while all participants were required to use the core set of 20 indicators. Collaboratives were also given the choice to use other indicators that were not in the core set. Most of them did so.

Inter-rater reliability was performed based on comparison of ratings on indicators scored at the same time across raters (Richardson, 2015). The reliability study used case descriptions that included information on each of the 20 core indicator areas. The descriptions were presented as case scenarios with questions being asked by a worker and family responses. Based on the information available, status levels were chosen by study participants for each indicator. A total of 189 case workers completed assessments at two times. Participants in the study came from family resource agencies participating in the FDM project. Agencies arranged for all paid staff (those who use the FDM as well as those that have not) to participate in the study.

Results obtained from the inter-rater reliability study indicated that 19 of 20 indicators achieved high consistency levels of 80% percent or above; 14 indicators obtained agreement at greater than 90%. The *support system* indicator obtained a consistency score of 60% suggesting refinement of the definitions of the categories may be necessary. Rater agreement obtained in the study is presented in table 1.

Table 1: Proportion of raters that agreed on case family's status level (inter-rater reliability)

Indicator	Proportion of raters agreeing on a status level
1. Access To Transportation	0.87
2. Child Health Insurance	0.88
3. Community Resources Knowledge	0.83
4. Health Services	0.89
5. Budgeting	0.98
6. Clothing	0.90
7. Employment	0.97
8. Child Care	0.99
9. Risk of Emotional or Sexual Abuse	0.94
10. Supervision	0.87
11. Appropriate Development	0.95
12. Nutrition	0.99
13. Family Communication Skills	0.90
14. Emotional Well-being/ Sense of Life Value	0.96
15. Nurturing	0.86
16. Parenting Skills	0.95
17. Home Environment	0.99
18. Stability of Home or Shelter	0.94
19. Support System	0.58
20. Presence of Abuse	0.97
Number of participants	189

By administering the test a second time, intra rater reliability was assessed. When results from those who took both the initial and the second wave were compared to the overall

sample, the findings were consistent (i.e., parallel) to analysis of all the respondents regardless of whether they participated in only (first assessment) or both assessments. After thorough examination of the data, Richardson (2015) concluded that the FDM indicators have a high degree of reliability.

A study on predictive validity of FDM indicators is currently underway. The study examines the probability of subsequent child welfare referrals for families in a county child welfare differential response program. Preliminary results show significant correlations between positive changes in FDM indicators and lower rates of subsequent referrals (Richardson, B. personal communication).

3.5. Program Support Services

Following the strength-based assessment, evidence based and best practices and/or localized services are identified for improving parenting, father involvement, trauma therapy, healthy families, and other issues depending on agency programs and family decisions. During the FDM first phase development the Institute for Community Collaborative Studies contracted with Lizbeth Schorr at Harvard University Innovations Program to develop "The Pathway to the Prevention of Child Abuse and Neglect" manual to assist FDM agencies to use and track prevention strategies. These practices assemble a wealth of findings and interventions from research, evidence based practice and policy initiatives on what it takes to improve the lives of children and families (Schorr, L.B. & Marchand, V. (2007).

The program support services were grouped in 6 goal areas and linked to specific indicators in the database. Table 2 presents the alignment of goals indicators and Pathway program services. As the table describes, the FDM provides 17 support service categories that are aligned to specific indicators and Pathway goals. Individual agencies further align specific programs and interventions to the support categories provided and directly to indicators to better serve their evaluation needs. The goal for this feature in the FDM is to assist agencies in linking the assessment and empowerment plan with a specific action plan that involves support services in a systematic way that allows the worker to assess the family's level of engagement and follow through. The FDM database is programed to prompt a screen with the list of program support services used by the agency that are linked to the indicators that were assessed at a level of "at risk" or "in-crisis." This step takes place immediately after the assessment data is entered in the FDM.

The data for program categories used in the 2009-14 period presented in table 2 show wide variation on the type of programs used and indicators that are addressed. The overall data, however, show that during the 2009-2014 period the indicators that the program support services most frequently used were those Connecting families to financial supports for self-sufficiency (28%); providing health information (10%), and providing positive parenting education (10%). These correlate with the indicators most frequently tagged in the FDM as receiving a support service: Employment (12%), knowledge of community resources (11%), and family communication skills (7%).

Table 2: Program support services alignment to indicators and goals, 2009-2015

Pathway Goal	Indicators *	Pathway Support Programs**
Children and youth are nurtured, safe and engaged	• Child Care (4.69) • Supervision (0.71) • Risk of Emotional & Sexual Abuse (5.16) • Nutrition (2.74) • Appropriate Development (4.94)	• Confirm safety of child (3.33) • Work in partnership with Child Welfare (2.76) • Connect to childcare opportunities(4.26) • Identify developmental concerns (3.89) • Support children's social and emotional competence (1.71) • Support family to advocate for child in school (2.4)
Families are strong and connected	• Nurturing (1.7) • Parenting Skills (7.68) • Family Communication Skills (7.01)	• Positive parenting education (10.04) • Effectively involve fathers and other relatives in parenting (1.85) • Connect to parent support groups and education (5.72)
Identified families access services and supports	• Budgeting (5.51) • Clothing (4.64) • Employment (11.87) • Stability of Home or Shelter (5.35) • Home Environment (1.67) • Health Services (3.22) • Community Resources Knowledge (11.49) • Child Health Insurance (3.56) • Transportation (3.21)	• Connect to financial supports for self-sufficiency (27.81) • Provide health information (10.34) • Provide transportation to access medical/counseling appointments as needed (4.16) • Participate in multi-disciplinary teams to coordinate services (6.32)
Families are free from substance abuse and mental illness	• Presence of substance abuse (3.59) • Emotional Wellbeing/Sense of Life Value (6.94)	• Connect to weekly group meetings for parents and children (4.57) • Provide linkages to remove barriers to mental health and substance abuse services (3.99)
Communities are caring and responsive	• Support Systems (5.32)	• Connect to informal community supports (4.18) • Work with families to identify system gaps (2.93)

* Number in parenthesis represents the percentage of cases that received a support service associated with the indicator.
** Number in parenthesis represents the program support service's relative frequency of use.

It is important to note that while table 2 reflects the Pathway program supports, most collaboratives enter other support programs they may employ. These "custom" program support services coexist with the Pathway support services presented in table 2. By design, collaboratives are given full flexibility on the program support services they enter in the database and the rules they use to link them to the indicators. While this feature greatly enhanced agency buy-in into the process it also caused complication on the analysis of data aggregated across different collaboratives.

3.6 Family Engagement

Family engagement is crucial for the success of interventions in child welfare (Littell & Tajima, 2000). The FDM includes a 3-point scale that caseworkers use to rate the level of follow-through with the empowerment plan demonstrated by the family between the first and second assessments When a family comes back to the agency for a second assessment, the caseworker records in the database whether the family exhibited "full participation," an "uneven follow through," or if there was "no action taken by the family."

4. FDM Implementation and Results

The FDM was implemented in more than 25 collaboratives across the state of California. As table 3 presents, by 2013 there were 25 collaboratives with an average of about 6 agencies each organized from combinations of child welfare departments, First5 commissions, programs for home visiting, domestic violence, Head Start, tribal social services, cultural broker/advocates, clinic health systems, teen pregnancy and a variety of urban or rural family resource agencies. Since 2009, 21,212 families received a baseline assessment. About 59% of these families identified themselves as Hispanic (of any race); 17% as white; 14% as African American; 4% as Asian/Pacific Islander; 2% as Native American; and 4% as mixed or other race. As table 2 details, these families represented a total of 47,312 children. Further, out of the total number of families assessed, 41% attended services under Child Welfare differential response referrals, while 59% received services from participating family resource centers through other types of community based program referrals (e.g. schools, churches, substance abuse, food and clothing, etc) or in a walk-in basis.

Table 3: Number of families in the FDM database 2009-2014

	Year						
	2009	2010	2011	2012	2013	2014	
Number of collaboratives	5	6	18	22	25	22	
Number of agencies	35	40	100	120	150	144	Total
Number of families with first assessment	437	4,200	2,747	4,235	5,139	4,454	21,212
% of families with a second assessment	59.2	71.0	67.3	50.1	45.2	40.8	53.5
% of families classified as Differential Response referrals	49.4	28.9	40.4	41.3	41.4	50.3	40.8
Number of children served	991	9,228	5,802	9,502	11,786	10,003	47,312

Table 4 presents a summary of baseline scores under each indicator for all families that underwent an assessment with the FDM during 2009-2014. The indicators with at least 1 in 4 families scored at "in crisis" or "at risk" levels were in the areas of employment (48%), community resource knowledge (39%), budgeting (26%), and support system (25%). Other areas such as family communication skills (21%), clothing (22%), and emotional well-being (19%) were also areas where around 1 in 5 families scored at the "at risk" or "in crisis" levels.

Table 4: Distribution of status levels by indicator (All families with a 1st assessment 2009-2014)

Indicator	In Crisis %	At Risk %	Stable %	Self Sufficient %	n
Childcare	11.9	8.4	31.4	48.4	14,910
Supervision	0.8	2.2	13.5	83.6	19,349
Risk of emotional or sex abuse	2.8	12.9	10.9	73.4	19,080
Nutrition	1.4	4.4	20.3	73.9	19,858
Appropriate development	1.5	11.2	25.6	61.7	19,333
Nurturing	0.7	8.4	23.7	67.2	19,884
Parenting skills	1.6	13.3	39.2	45.9	20,003
Family communication skills	3.2	17.5	34.0	45.3	21,052
Budgeting	6.5	19.6	43.6	30.3	21,045
Clothing	4.2	17.8	33.5	44.5	21,045
Employment	40.6	7.6	38.5	13.4	16,239
Stability of home shelter	6.2	9.6	20.5	63.8	21,028
Home environment	1.5	5.9	30.4	62.3	21,037
Health services	2.4	9.0	54.3	34.3	21,052
Comm. resources knowledge	11.3	28.1	34.4	26.1	21,059
Child health insurance	6.8	4.7	11.2	77.4	19,666
Access to transportation	4.1	6.6	29.0	60.4	21,063
Presence of (substance) abuse	3.6	6.0	19.6	70.9	21,037
Emotional wellbeing/ life value	3.0	15.9	52.3	28.9	21,056
Support system	4.4	20.7	39.1	35.8	21,041

It is important to note that most families in the FDM tend to arrive to the family resource agencies with specific needs, few areas of additional concern, and many areas of strength. Our data shows that 70% of families have 2 or less indicators at the "at risk" or "in crisis" level at the first assessment. Indicators where families tend to be "stable" or "self-sufficient" were supervision, nutrition, and home environment, with more than 90% of families at safe or self-sufficient levels.

As explained in the previous section, after the an analysis of strengths and challenges is completed by the worker and the family, an empowerment plan that identifies goals and make appropriate referrals to family support services, a second appointment is established typically 90 days after the first baseline assessment to evaluate client progress. Table 5 presents family outcomes on the 20 core indicators on the first and second assessments. As the table describes, the percentage of families at the "stable" or self-sufficient" level tend to increase substantially between the first and second assessment in every indicator for both Differential Response referrals and walk-in families. All of the changes in table 2 are statistically significant at the .05 level. As the table shows, overall, the greatest gains tend to be in the areas of community resource knowledge, budgeting, and support system with 33, 13, and 12.5 percentage point increases respectively. Other areas that exhibit at least 10 point increases in the percentages of families at the stable or self-

sufficient levels were clothing (10.6), risk of emotional or sexual abuse (10.6), emotional wellbeing (10.4). Table 5 also highlights the differences between DR and non DR families in the FDM, with the former group presenting lower percentages of families at the stable or self-sufficient levels in the first assessment across all indicators. These differences, however, tend to diminish or disappear by the second assessment.

Table 5: Percent of families at the "stable" or "self-sufficient" level in first and second assessment (families with at least 2 assessments 2010-2014)

Indicator	Non DR		DR		ALL	
	1st A	2nd A	1st A	2nd A	1st A	2nd A
Childcare	80.0	89.1	79.6	90.8	79.9	89.7
Supervision	97.7	98.3	96.8	98.1	97.3	98.2
Risk of emotional or sex abuse	88.7	95.4	75.4	92.1	83.5	94.1
Nutrition	90.6	97.9	96.6	98.3	92.9	98.1
Appropriate development	90.0	94.3	84.4	91.3	87.8	93.1
Nurturing	93.8	96.8	86.0	94.4	90.8	95.9
Parenting skills	88.4	94.2	78.7	91.0	84.7	93.0
Family communication skills	82.8	89.8	72.1	83.8	78.9	87.6
Budgeting	72.7	86.6	74.4	86.6	73.3	86.6
Clothing	79.3	89.1	75.7	87.5	77.9	88.5
Employment	51.2	62.3	54.8	63.5	52.5	62.7
Stability of home shelter	86.4	90.0	83.8	88.2	85.4	89.3
Home environment	94.1	96.5	91.1	94.7	93.0	95.8
Health services	87.0	94.6	88.5	94.3	87.6	94.5
Comm. resources knowledge	59.4	91.0	55.9	90.6	58.1	90.9
Child health insurance	84.8	93.3	90.9	95.7	87.2	94.2
Access to transportation	90.7	95.0	89.1	93.6	90.1	94.5
Presence of (substance) abuse	93.4	95.5	87.4	91.8	91.2	94.2
Emotional wellbeing/ life value	82.3	91.7	77.8	90.0	80.7	91.0
Support system	77.0	88.8	72.0	85.8	75.2	87.7

Family outcomes as measured by the FDM show significant improvement over a period of 90 days. Richardson also finds that families under DR with higher scores on a second assessment were less likely to have a case opened in Child Welfare after receiving services. Positive changes in FDM scores for the indicators of community resource knowledge, risk of emotional or sexual abuse, and support system were also associated with lower numbers of subsequent referrals (Richardson, 2015).

As explained in a previous section the FDM includes a 3-point scale that caseworkers use to rate the level of follow-through with the empowerment plan demonstrated by the family between the first and second assessments. Overall, workers perceived 66% of all families with at least 2 assessments as exhibiting "full participation" and 29% and 5% as exhibiting an uneven follow through and no action respectively. Consistent with previous findings on the effect of family engagement on outcomes, FDM data shows a

strong correlation between the two. As table 6 presents, the percentages of clients that moved from a level of "in crisis" or "at risk" in the first assessment to a "stable" or "self-sufficient" level by the second assessment is related to worker's perceived level of engagement. Families that exhibited full participation were more likely to move to a stable or self-sufficient level in each and all of the indicators with the highest differences in the indicators of parenting skills and nurturing (34 and 29 percentage point difference respectively)

Table 6: Percent of families that moved from a level of "in crisis" or "at risk" in the first assessment to a "stable" or "self-sufficient" level by the second assessment by indicator and workers' perceived level of engagement

Indicator	Uneven or no follow through %	Full participation %	ALL %
Childcare	52.6	64.7	65.6
Supervision	61.5	80.0	71.2
Risk of emotional or sex abuse	61.9	78.8	71.9
Nutrition	70.9	78.4	75.3
Appropriate development	53.7	66.8	62.0
Nurturing	52.3	81.3	68.8
Parenting skills	42.3	76.8	65.2
Family communication skills	43.2	61.3	53.5
Budgeting	47.2	66.7	58.8
Clothing	55.8	66.3	62.2
Employment	21.6	29.5	26.5
Stability of home shelter	43.4	51.8	48.5
Home environment	55.0	68.5	61.7
Health services	56.8	77.3	68.1
Comm. resources knowledge	75.7	84.5	81.1
Child health insurance	58.6	69.0	59.7
Access to transportation	49.0	71.0	62.4
Presence of (substance) abuse	42.3	60.5	52.6
Emotional wellbeing/ life value	53.0	76.5	67.1
Support system	49.6	69.7	61.6

Interestingly, perceived engagement levels for Differential Response referrals tend to be significantly different than those for walk–in clients. Using FDM data Navarro (2015), finds family engagement to be correlated to DR path even after controlling for demographic characteristics, and scores on the 20 indicators. His analysis argues that part of this relationship may be explained by families' perception of how voluntary the

referral was and the self-selection of families arriving into family resource agencies determined by their readiness to change, and levels of buy-in and trust.

5. Conclusion

This paper describes the development and implementation of the Family Development Matrix (FDM), an assessment tool that informs case management and tracks outcomes. The California Department of Social Services, Office of Child Abuse Prevention supported broadening and extending public/private partnerships to use the FDM to measure outcomes in prevention of child abuse and neglect. The main goal for this initiative was to build capacity across family resource centers in the state by providing a common protocol to conduct strengths-based case management and referrals to support services for their clients and to equip them with an assessment tool with database capabilities that allowed them to document and analyze client outcomes measured by a common set of indicators.

The 2005-2008 represented a building period, where design teams from 5 counties were involved in the development and testing of the FDM's empowerment plan, the core set of family wellbeing and engagement indicators and the alignment of support services and programs with family needs. During the 2009-2014 period around 21,000 families received services using the FDM model as described in this paper. The data from this period shows that FRCs used the FDM to provide case management for clients referred by child welfare and walk-in cases alike (especially those exhibiting higher levels of engagement). Furthermore, the data on outcomes achieved by families as measured by the FDM indicators reveal a remarkable pattern of positive change across all types of clients, with the use of a wide array of support services. The rapid growth in the number of California counties and agencies using the FDM in the 2009-14 period may serve as evidence of its perceived value across different agency types.

The California experience shows much promise for the FDM as an assessment tool that builds community collaborative capacity in a multiple array of agency types. There are several areas of future research that could further explore the FDM's potential as an assessment tool: first, while the results on the indicators' reliability are strong and the correlation with subsequent allegations of child abuse and neglect are promising, more studies on the indicator's predictive validity of the number and severity of clients subsequent allegations of abuse and neglect would enhance the FDM's full potential as a prevention assessment tool. Unfortunately, out of the 25 participating collaboratives, only 3 were able to integrate the FDM database with their Child Protective Service's counterpart databases. A second important area of further study involves the extent to which agencies use their data to perform evaluations and pursue funding. While there is ample evidence that agencies use their data (as evidenced by the number of downloads or reports and raw data) the specifics on how they use their data could further inform assessment tools as the FDM on enhancing agency capacity and strengthening public private partnerships in child welfare.

As the field of prevention of child abuse and neglect increases its focus on outcomes and its reliance on interagency partnerships and collaborations the need for assessment tools that can provide shared outcomes will only become greater. The paper presents the California's FDM model as promising alternative to build upon.

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