The Family Development Matrix Pathway Project

Jerry Endres
Ignacio Navarro

MATRIX OUTCOMES MODEL

MATRIX
OUTCOMES MODEL

Participating Counties

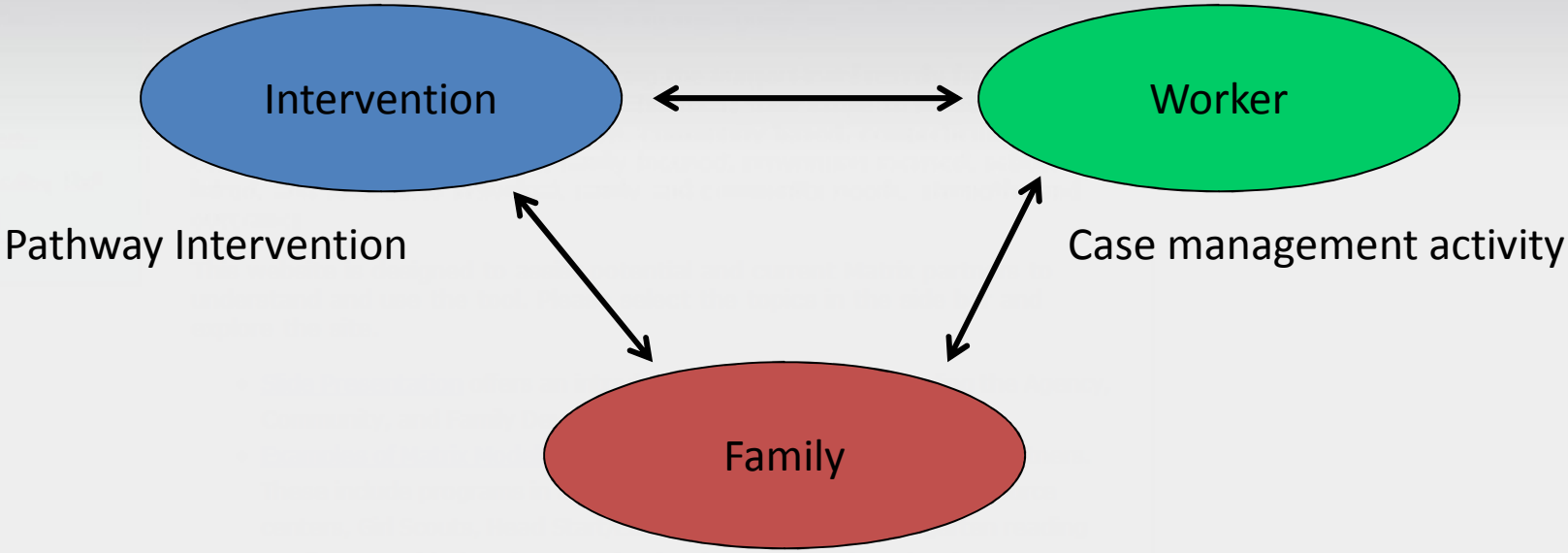
1. Alpine
2. Butte
3. Del Norte
4. Fresno
5. Humboldt
6. Lake
7. Los Angeles
8. Madera
9. Mendocino
10. Sonoma
11. Orange
12. San Francisco
13. San Joaquin
14. San Luis Obispo
15. Santa Barbara
16. Santa Clara
17. Siskiyou
18. Stanislaus
19. Tehama
20. Tulare
21. Ventura
22. Yolo

MATRIX OUTCOMES MODEL

Project Goals

- To build capacity within FRCs to use an integrated family outcomes tool for planning, assessment and evaluation
- To support FRCs to partner with other agencies and local child welfare systems to develop shared outcomes for families
- To conduct research and provide a framework of information for a pathway to prevent child abuse and to keep children in stable and nurturing homes

Our theory of change



Family 1: Participation
Family 2: Follow empowerment plan
Family 3: Barriers
Family 4: Level of support

MATRIX OUTCOMES MODEL

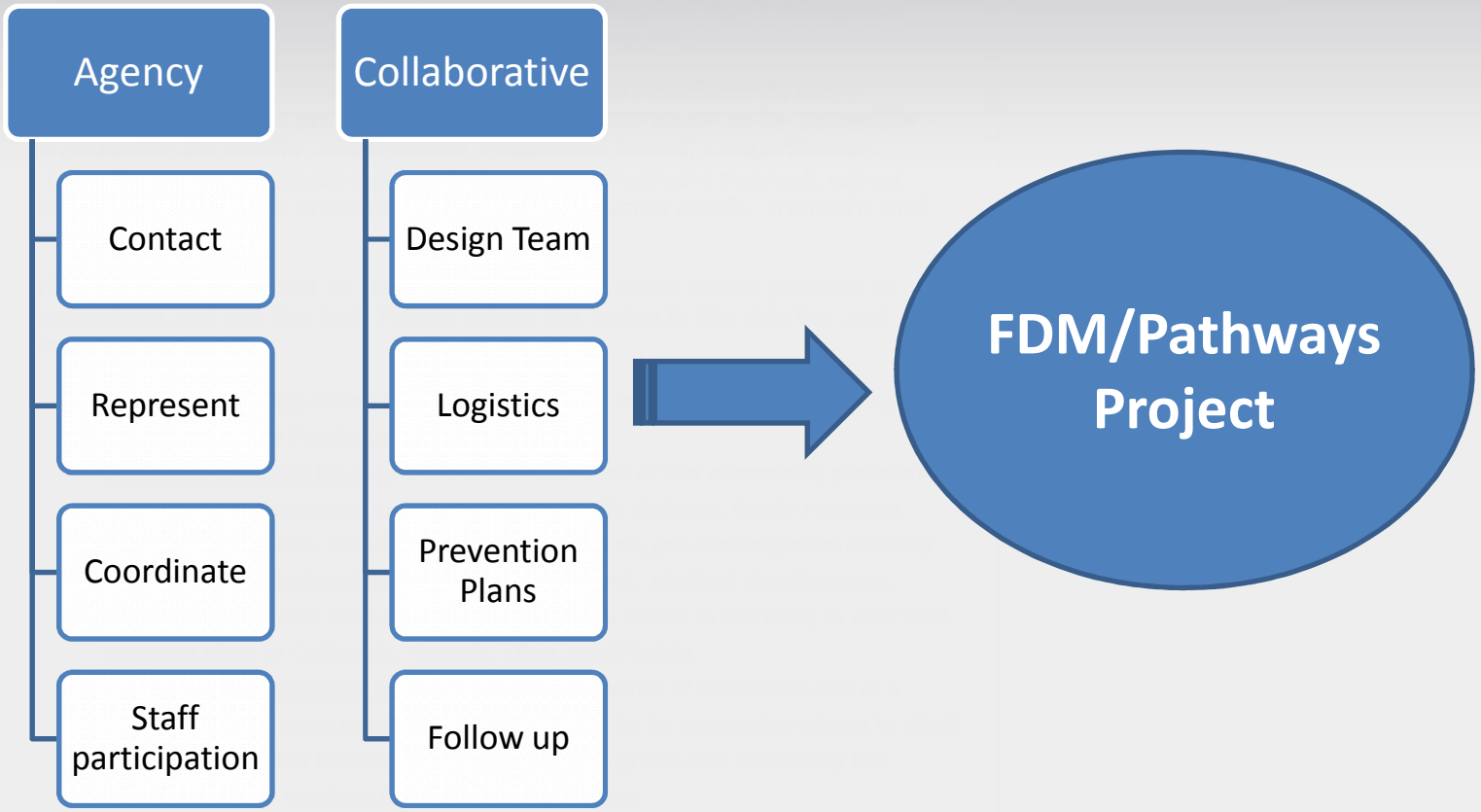
What is the Matrix Outcomes Model?

- An evaluation tool for measuring change over time in a family's situation
- A means to design family outcome indicators, record ongoing assessments, guide and track case management activities, and manage data using the Matrix Creator database
- A method to support the family strength-building relationship

Benefits of Using the Matrix

- Strength-based model
- Creates partnership with family
- Over time, documents opportunities, obstacles, and progress
- Facilitates family ownership of effort
- Helps families develop life skills for problem solving, goal setting, decisions and actions

Roles: Agency and Collaborative Coordinator



MATRIX OUTCOMES MODEL

Steps in the Process

Application

- Collaborative
- Agency

Design Team

- Protocol and Codes
- Optional Indicators

Staff Training

- Start up Support
- Follow up

Evaluation

- Data analysis
- Evaluation Reports

MATRIX OUTCOMES MODEL

Prevention Plan
Humboldt Healthy Start School and Communities Partnership

County Philosophy for Preventing Child Abuse & Neglect

Mission

We support the resilience of individuals, families and communities, recognizing that the resilience of one affects the others. We work together to improve health and well being through mutual support and respect for children, families and communities.

Vision

Humboldt County is a community of nurtured, secure and resilient families where every individual, family and community feels safe, respected and secure and where everyone's voice is valued and heard.

Values, Principles, Beliefs

- We acknowledge that all individuals, families and communities have strengths, and may need support when faced with life's challenges.
- We reinforce those strengths with multiple levels of support in order for all to have access to diverse services regardless of their age, income or background.
- We strive to eliminate any stigma of asking for support.
- We work to build individual, family and community resilience.
- We nurture long term engagement, relationships and community connections and work to reduce isolation.
- We are solution-focused and use strength-based practices.
- We share a unity of purpose in developing strategic partnerships.
- We are, including our technology partners, stronger working together, collaboratively, to make a difference.
- We model effective practices and collaboration to embody trust, good will and mutual support.
- We, as leaders, articulate, define, honor and frame our diverse roles and clarify decision-making processes.
- We build capacity through training and sustaining a qualified workforce.
- We implement evidence informed practices, building a common language as we adopt common outcome measures and create compatible data for shared program evaluation.
- We articulate goals and communicate progress about the evidence of well-being in our community as well as reduction of risk factors.

Overcoming Obstables & Meeting Challenges

Challenges	Team Approach
A. Collaborative /agency involvement	A. Adopt Philosophy (Vision ,Values, Leadership) for Collaborative Prevention Plan and possibly re-convene whole group.
B. Staff time to enter the FDM data	B. Review progress/ barriers/solutions quarterly
C. Align custom interventions to pathway interventions	C. Code Subcommittee (Amy, Ivy, Susan, Kim, Christina) meets Oct 17- 21 re optional indicators, interventions, etc. HSSCP review overlap between PCAC/ Direct Service tally and FDM— Oct 26, Nov 9.
D. Optional indicators - WHAT ARE GAPS	D. HSSCP/ Outcomes Committee & Code Sub committee, November 3
E. Align with AmeriCorps AFACTR/I Care system (reduce stress for those members)	E. HSSCP/Outcomes Committee & Code Subcommittee November 3. Staff Training in January.
F. Align with DHHS, First Five and FDM	F. Code Subcommittee
G. Get support from technology partners	G. For export/download to share data in future and to conduct Partnership meetings.

Team Objectives & Action Plan

Action Plan: Assign Roles to implement the FDM - Role / Time & Date/ Results

A. Review draft of **Vision, Values, Leadership statements** to complete Collaborative Prevention Plan. Review other counties' plans , edit and adopt.	A. HSSCP (10/26 and/or 11/9) (outcomes subcommittee) and possibly re-convene whole group?
B. Agree on indicators/Identifiers/Interventions	B. Input from HSSCP 10/26 to Coding Committee (11/3)
C. Agree on Protocol - see template/model	C. HSSCP Outcomes subcommittee
D. Complete Agency Profiles	D. Each HSSCP Coordinator
E. Schedule training	E. January 2012
F. Review progress/ challenges and solutions quarterly and consider adding, changing indicators/interventions/identifiers	F. With DHHS program managers. Differential Response Continuity Committee, F5 Parent and Family Support Committee.

Collaborative Agencies: First Five Humboldt, Humboldt County Department of Health & Human Services, Redwood Community Action Agency/AFACTR AmeriCorps, Child Abuse Prevention Coordinating Council

Family Development Matrix: Pathways to Child Abuse Prevention • *Funded by The Office of Child Abuse Prevention*

MATRIX OUTCOMES MODEL

Interventions Linked to Indicators/Matrix Outcomes Model, FDM Pathway Project

Protective Factors	Pathway Goals	Categories	Indicators	Pathway Interventions
Children's Social and Emotional Development	Children and Youth are Nurtured, Safe and Engaged	Child Safety	Child Care Supervision Risk of Emotional & Sexual Abuse	Confirm safety of child, Work in partnership with Child Welfare, Connect to childcare opportunities
		Children's Physical and Mental Health	Nutrition Appropriate Development	Identify developmental concerns, Support children's social and emotional competence, Support family to advocate for child in school
Parental Resilience & Knowledge of Parenting and Child Development	Families are Strong and Connected	Parent/Child Relationships	Nurturing Parenting Skills	Positive parenting education, Effectively involve fathers and other relatives in parenting, Connect to parent support groups and education
		Family Communication	Family Communication Skills	
Concrete Support in Times of Need	Identified Families Access Services and Supports	Basic Needs	Budgeting Clothing Employment	Connect to financial supports for self-sufficiency
		Shelter	Stability of Home or Shelter Home Environment	
		Access to Services	Health Services Community Resources Knowledge Child Health Insurance Transportation	Provide health information, Provide transportation to access medical/counseling appointments as needed, Participate in multi-disciplinary teams to coordinate services
Parental Resilience	Families are Free from Substance Abuse and Mental Illness	Substance Abuse	Presence of Abuse	Connect to weekly group meetings for parents and children, Provide linkages to remove barriers to mental health and substance abuse services
		Life Value	Emotional Wellbeing/Sense of Life Value	
Social Connections	Communities are Caring and Responsible	Social Emotional Health	Support Systems	Connect to informal community supports, Work with families to identify system gaps

Analyzing Data

Status level change based on time in program

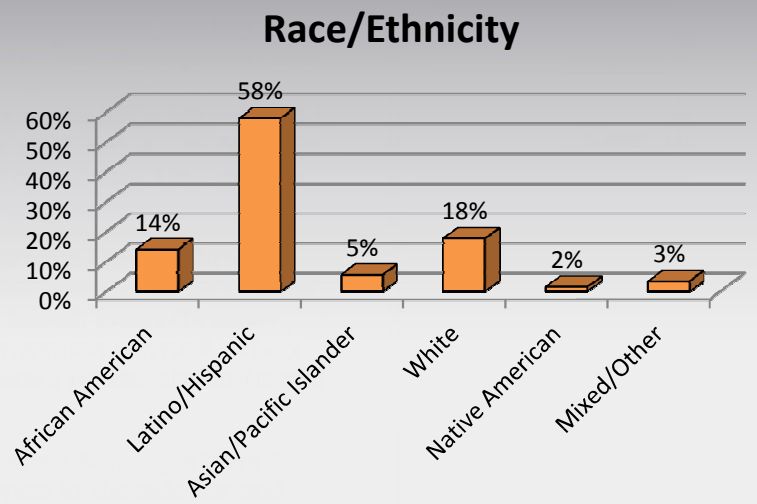
Compare baseline to current quarter

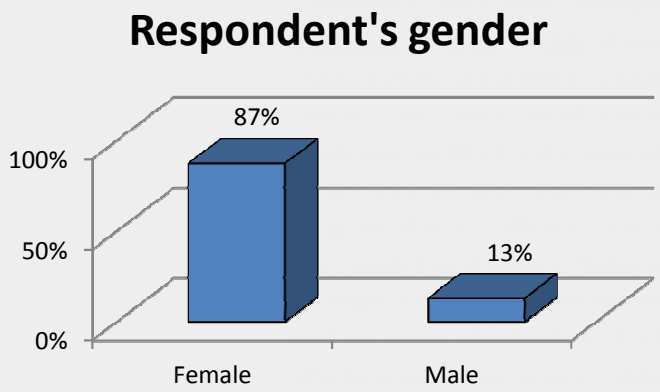
Data Tables and Graphs

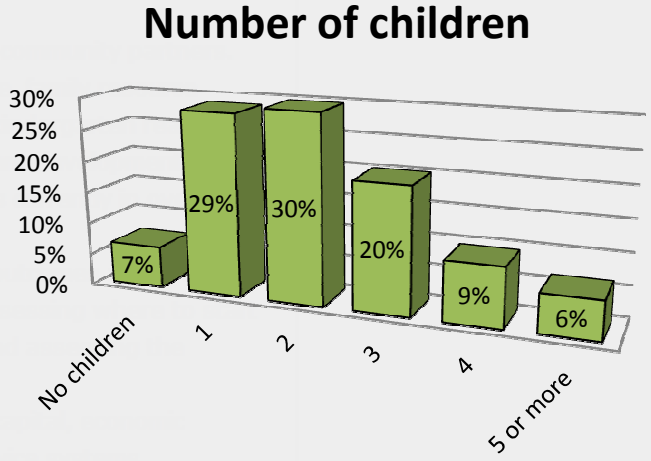
MATRIX OUTCOMES MODEL

Intake

- Demographic information collected at intake
- (N=8,226)



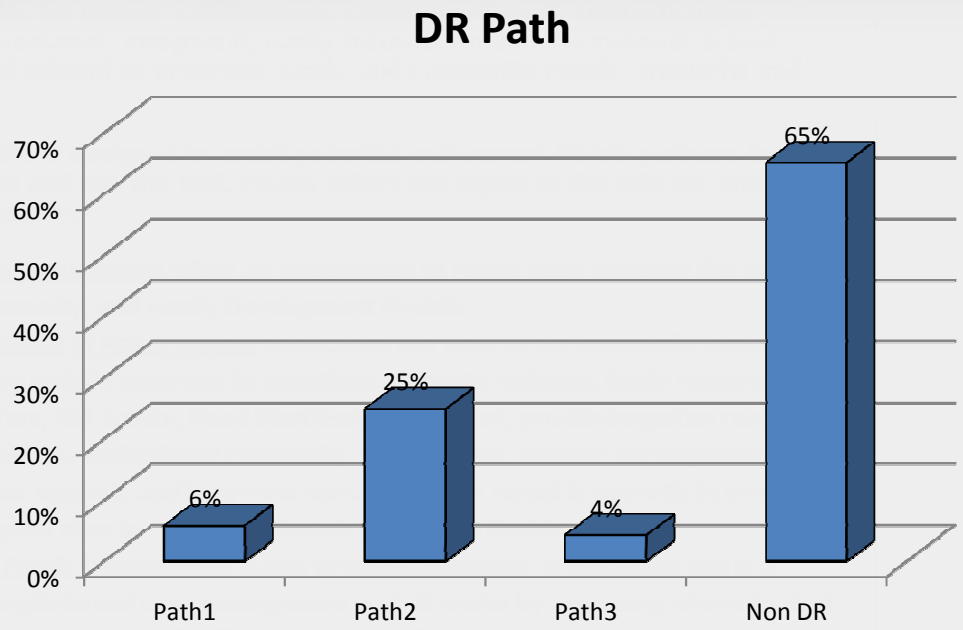




MATRIX OUTCOMES MODEL

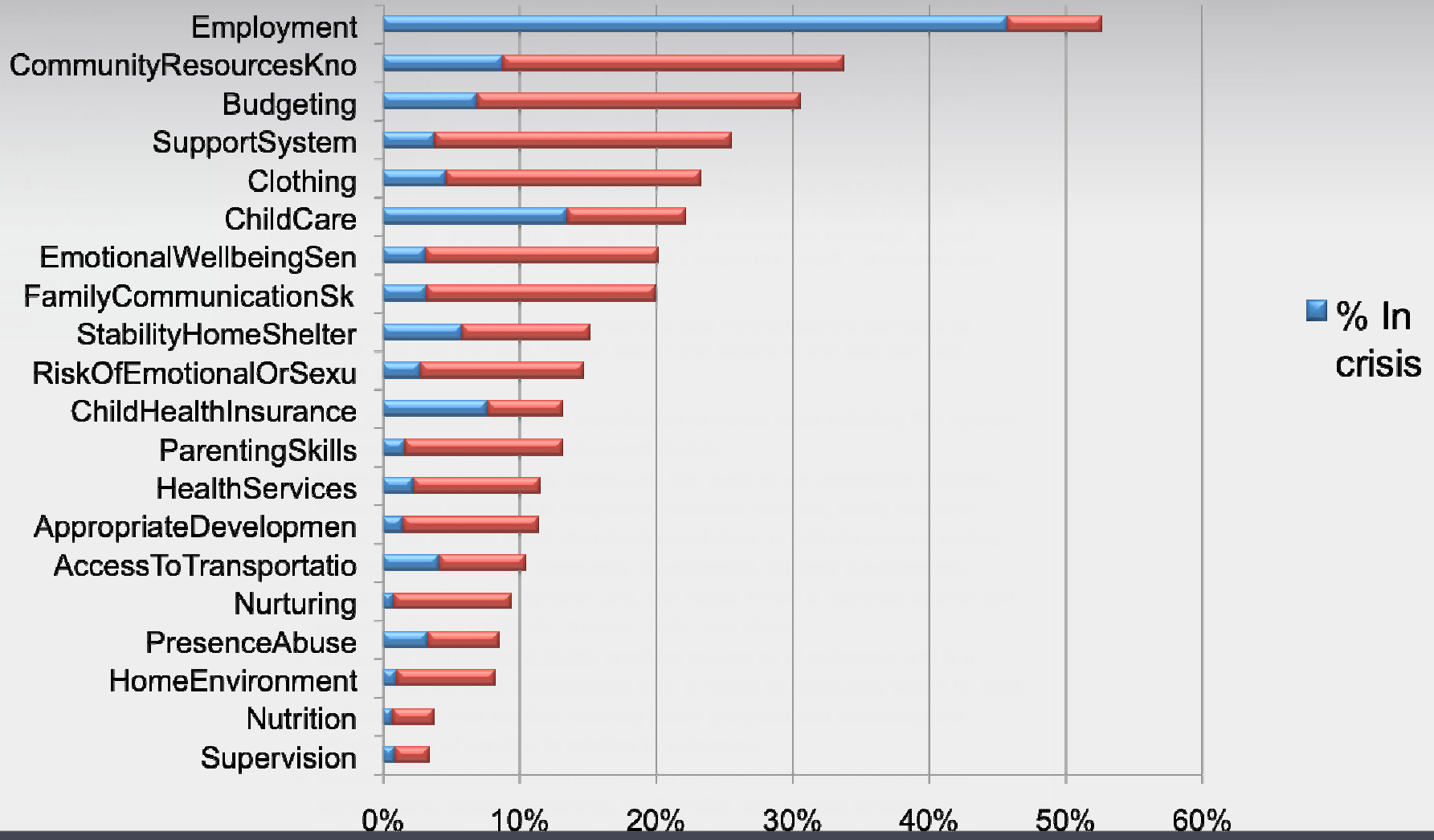
Intake

- DR Path



MATRIX OUTCOMES MODEL

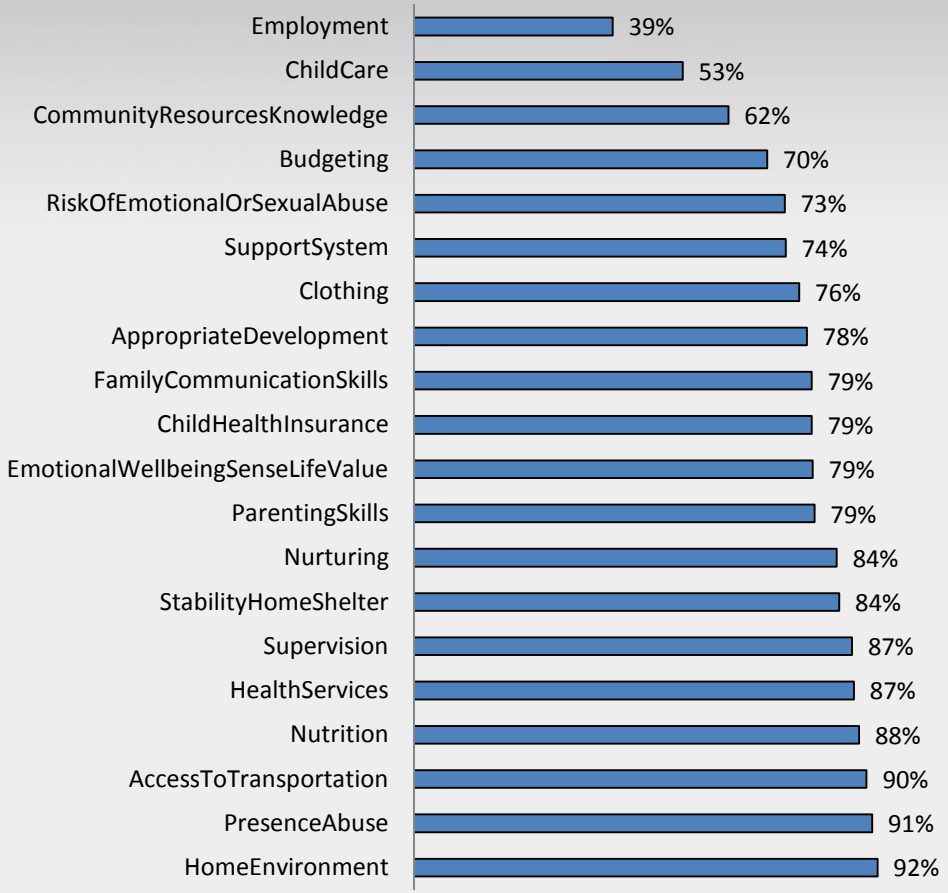
Percent of clients "in Crisis" or "at Risk" on first assessment



MATRIX OUTCOMES MODEL

Family Assessment

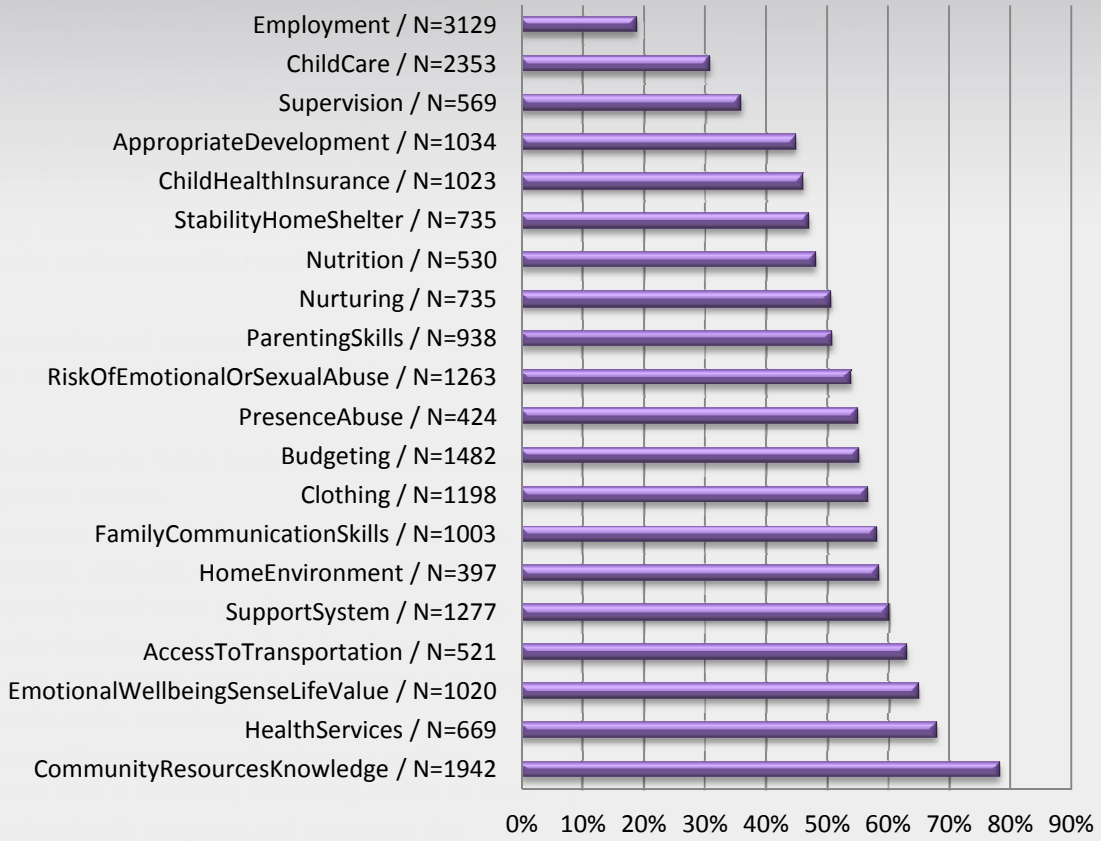
- First Assessment Scores
- Each bar represents the percentage of clients at stable or self sufficient level by indicator
- N=8,261 (all first assessments)



MATRIX OUTCOMES MODEL

Family Assessment

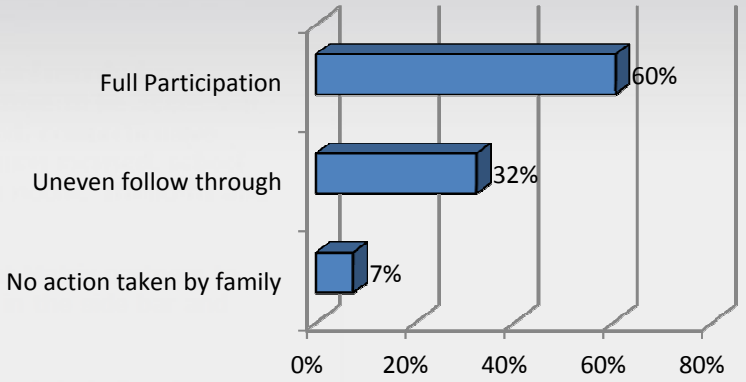
- Change between first and second assessment for clients that scored “at risk” or “in crisis” in 1st assessment
- Each bar represents the percentage of clients that started at “at risk” or “in crisis” in 1st assessment and moved to “stable” or “self sufficient” levels by 2nd assessment
- N= the number of clients with at least 2 assessments that started “at risk” or “in crisis” in 1st assessment



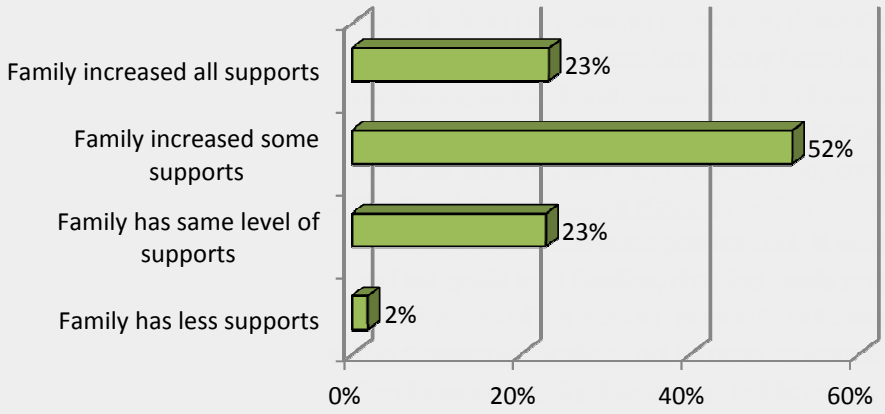
Building Relationships

- Family engagement, strategies, and levels of support are assessed to evaluate the families relationships

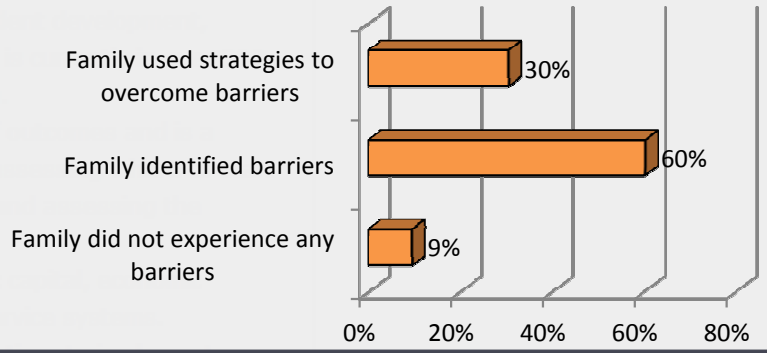
Family Participation - Follow Through with Empowerment Plan



Family Participation - Supports



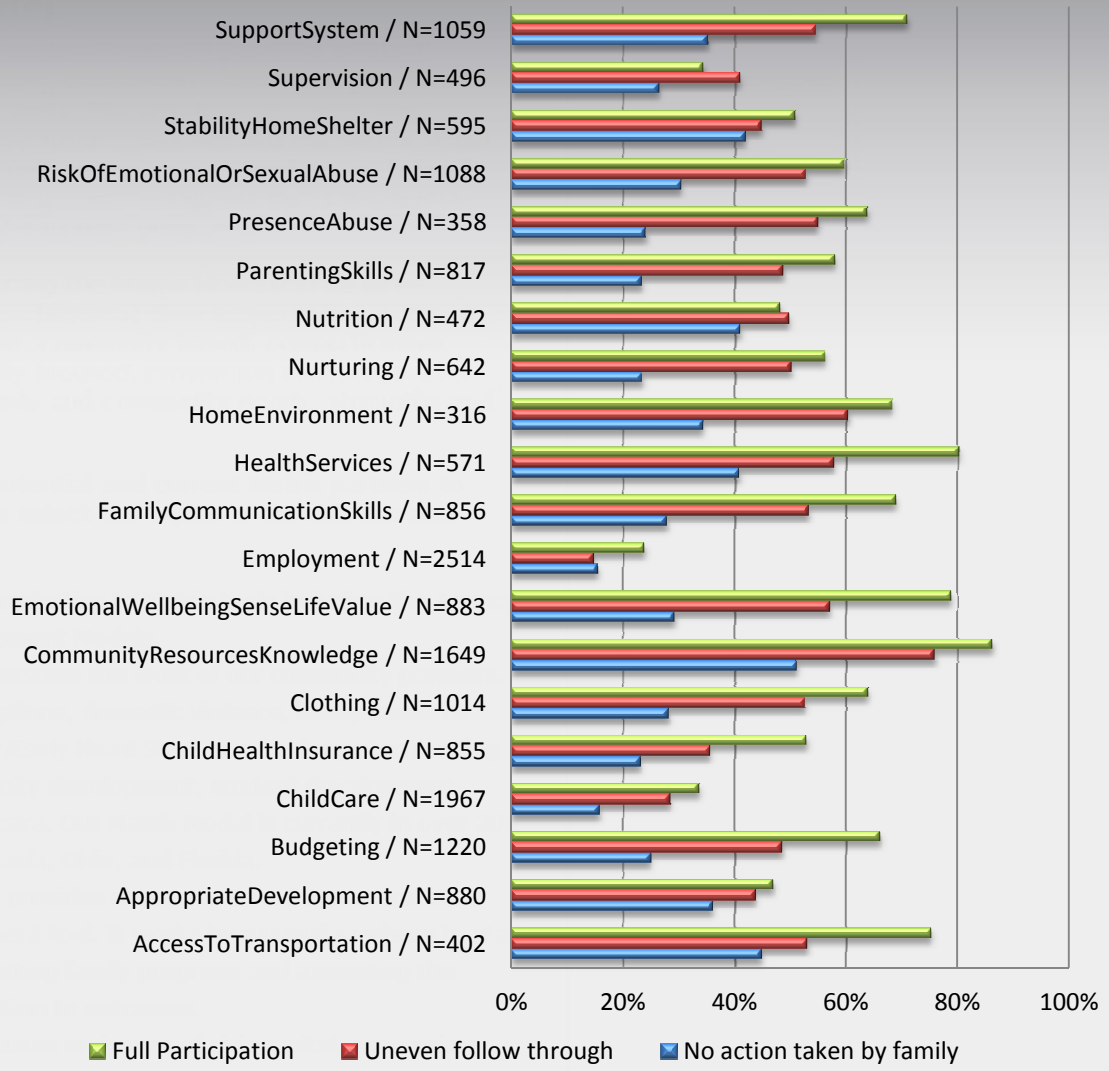
Family Participation - Barriers



MATRIX OUTCOMES MODEL

Empowerment Plan

- Families that are engaged in the process are more likely to obtain better results
- Each bar represents the percentage of clients that started at “at risk” or “in crisis” in 1st assessment and moved to “stable” or “self sufficient” levels in 2nd assessment by their level of engagement
- N= the number of clients with at least 2 assessments that started “at risk” or “in crisis” in 1st assessment and have a recorded family engagement data



MATRIX OUTCOMES MODEL

Indicators that seemed to be most impacted by family participation

Effect of family participation on change (Sum)	Indicator
1	Nurturing
2	Appropriate Development
3	Presence Abuse
4	Family Communication Skills
5	Parenting Skills
6	Health Services
7	Risk Of Emotional Or Sexual Abuse
8	Budgeting
9	Support System
10	Access to Transportation

MATRIX OUTCOMES MODEL

Indicators that seemed to be most impacted by worker activities

Effect of worker activity on change (sum)	Indicator
1	Home environment
2	Emotional wellbeing-sense life value
3	Health Services
4	Presence of abuse
5	Family communication skills
6	Support system
7	Nurturing
8	Appropriate development
9	Nutrition
10	Supervision

MATRIX OUTCOMES MODEL

How many intervention have been collected?

FDM Category	Interventions (n)	Families (n)
Basic Needs	3479	1704
Access to Services	3063	1563
Child Safety	1677	895
Parent/Child Relationships	1360	656
Life Value	1277	733
Family Communication	1090	616
Shelter	913	623
Social Emotional Health	857	536
Children's Physical/Mental Health	833	436
Substance Abuse	353	213

MATRIX OUTCOMES MODEL

Most Improved Category

Protective Factor	***FDM Category***	***Family Development Matrix Indicators***	***Pathway Interventions***
Concrete Support in Times of Need	*Access to Services*	Health Services Community Resources Knowledge Child Health Insurance Transportation	Provide health information, Provide transportation to access medical/counseling appointments, Participate in multi-disciplinary teams to coordinate services

Received the 2nd highest number of interventions

MATRIX OUTCOMES MODEL

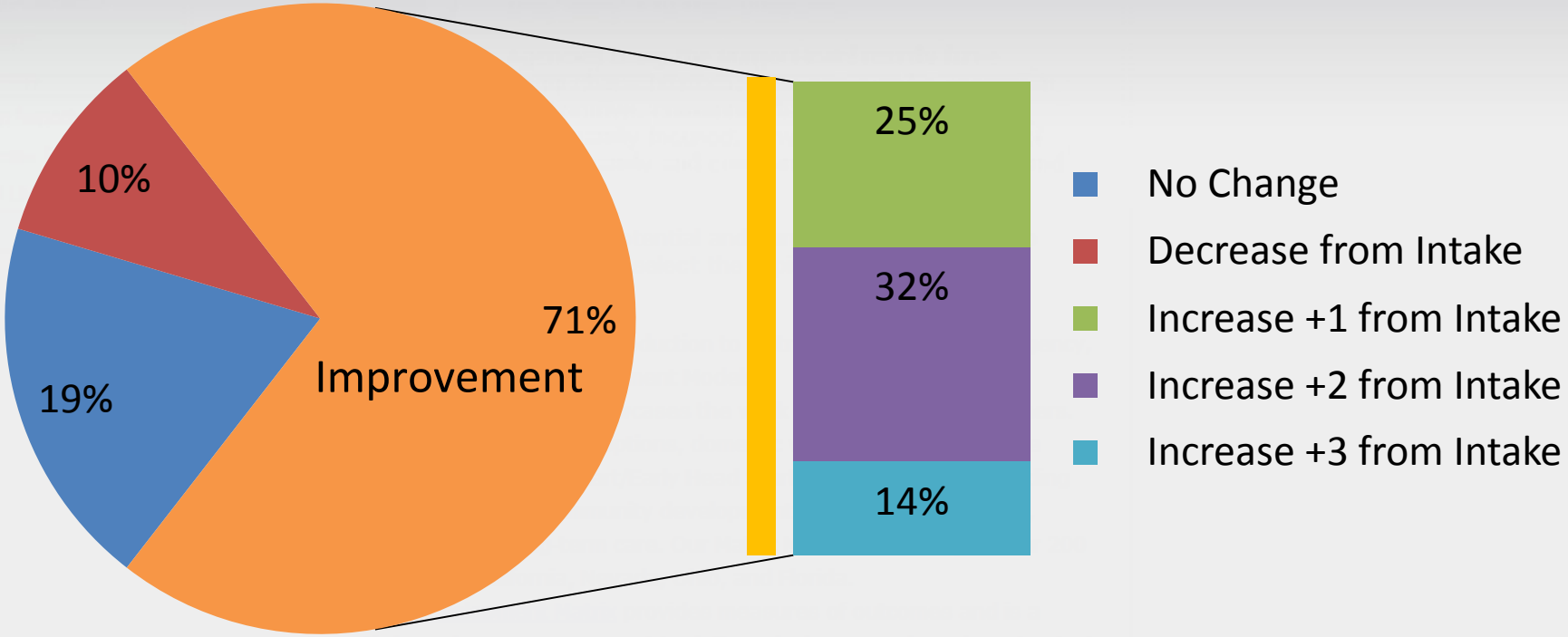
What was seen within each indicator for Access to Services?

FDM Category	Families with an intervention given at intake (n)	% lost to follow-up	% improved* (from 1 or 2 at intake)
Access to Services			
• Access to Transportation	220	29%	85%
• Child Health Insurance	356	35%	78%
• Community Resource Knowledge	897	32%	88%
• Health Services	261	29%	83%

* Including only families: with at least one follow-up visit & given an intervention at intake

MATRIX OUTCOMES MODEL

What change was seen from intake to last follow-up?

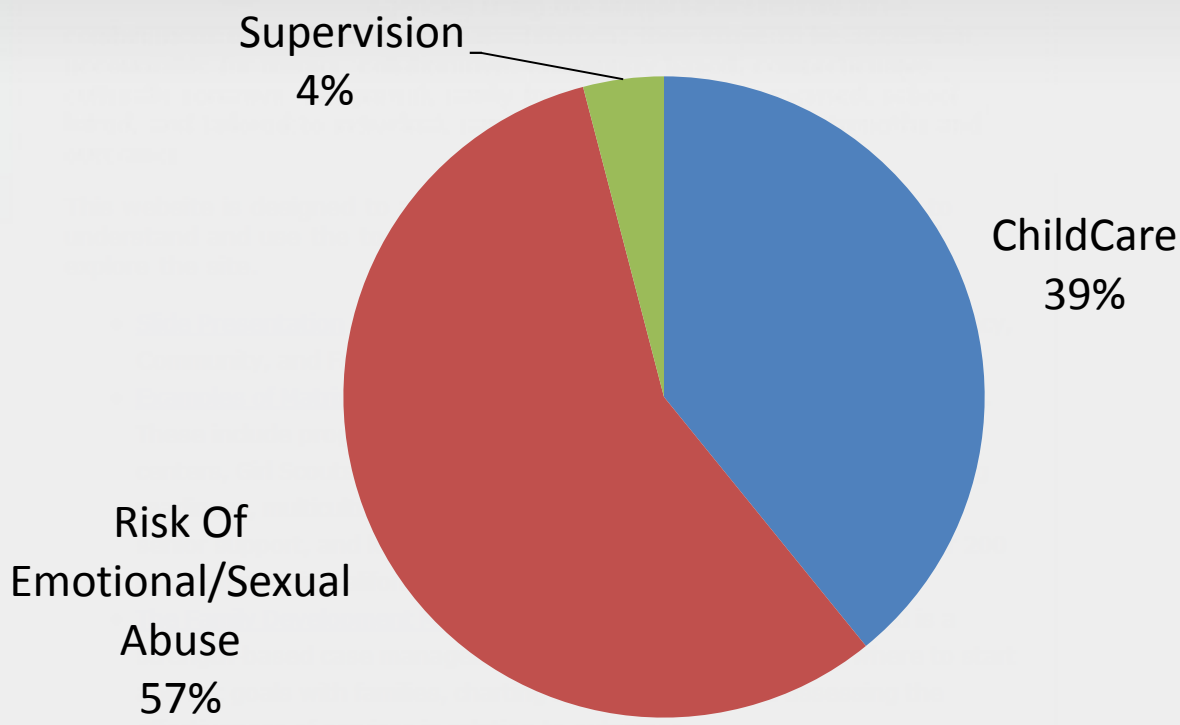


Child Safety

Families who scored 1 or 2 at intake

MATRIX OUTCOMES MODEL

What indicators were targeted with interventions? (N=516)



MATRIX OUTCOMES MODEL

What were the most prevalent interventions within the improved families?

Intervention	% of Improved Families
Connect to child care opportunities	30%
Confirm Safety of Child	25%
Positive parenting education	23%

Example collaborative with 75% Improvement in Child Safety

Intervention	%
Refer to counseling	49%
In-home parent education classes	20%
Refer to PEP classes	14%

On-going Support

- On-site agency or collaborative support through training and technical assistance
- Conference calls with agency and collaborative coordinators on specific topics
- Regional workshops
- Statewide conference

MATRIX OUTCOMES MODEL

Using FDM data to test DR theories

DR PATH AND FAMILY ENGAGEMENT

MATRIX OUTCOMES MODEL

What do we know about DR and Family Engagement?

- Family engagement is one of the theoretical foundations of the DR approach. But have we tested that theoretical link?
- Evaluations of DR programs show:
  - Families under DR report higher levels of satisfaction than those under traditional CPS approach when asked about their opinions after the case is closed (So, these may be confounded with outcomes and interventions)
  - Case managers report very small differences on perceptions of client engagement (some not statistically significant others barely) and all coming from just one study (the Minnesota evaluation, by Lohman and Siegel, 2005).

Hypothesis to be tested

Proximity to CPS decreases family engagement (adversarial approach).

Other things being equal, the more involved CPS is in the case, the lower the engagement.

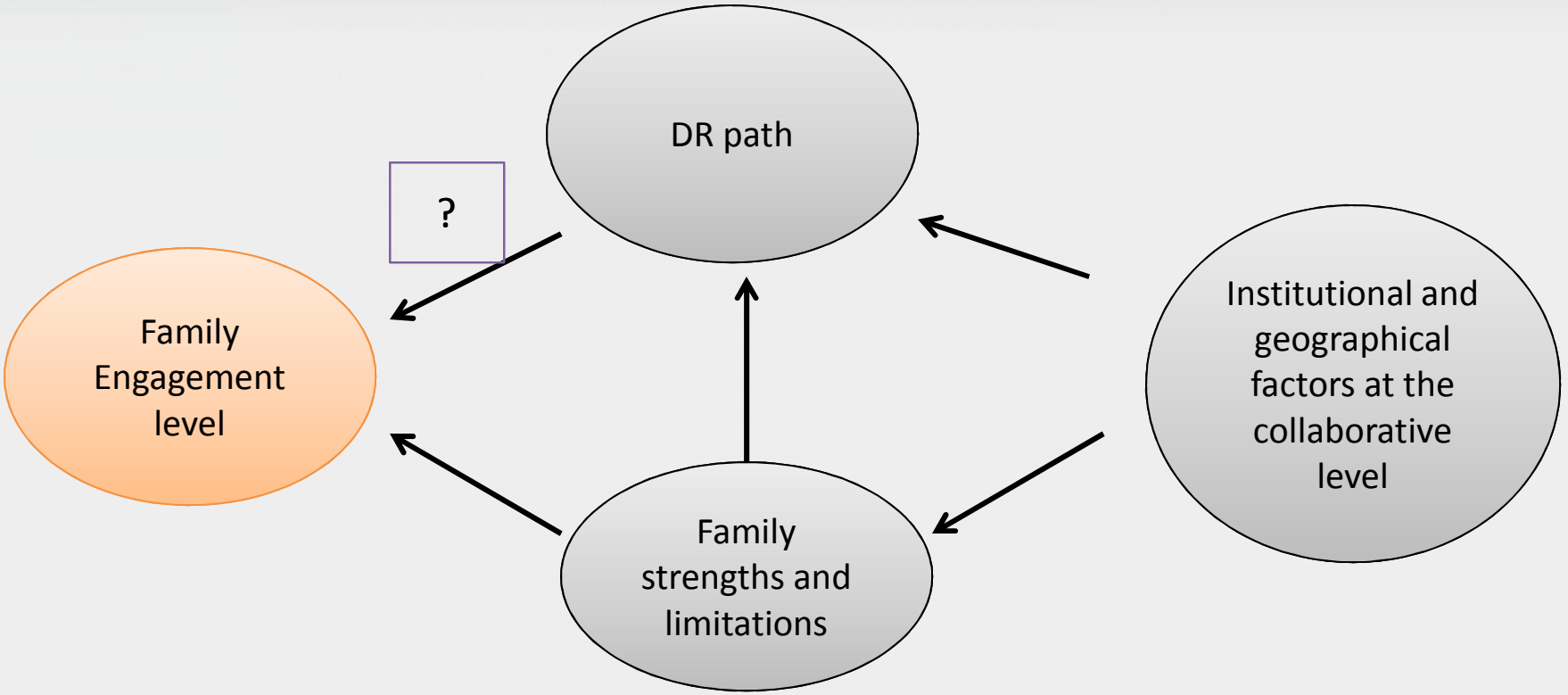
This hypothesis has not been tested directly in CW literature yet. More research is needed (Conley, 2007)

Methodology

- FDM Data 2009-2011
- Family engagement indicator
- DR-path indicator
- Family strengths and areas of concern
- Demographic variables (ethnicity, number children)
- County effects

The model

- If perceived family engagement is determined by DR path (and not the other way around) then we can estimate the following model:



FDM engagement indicator

- Case manager answers the following question after working with family and before second assessment:

  - Participation in the development of an empowerment plan (pick one)

    Family is resistant to taking steps to achieve goals

    Family is willing to make an attempt at taking steps to achieve goals

    Family is committed to taking steps to achieve goals.

MATRIX OUTCOMES MODEL

DR paths in California

- Path #1: Community Response
  - No CWS assessment (assessed out)
  - Partner agency engages the family in an assessment of family needs and provides feedback to CWS concerning family participation, per County agreements.
- Path #2: Child Welfare Services and Agency Partners Response
  - Teamwork approach between CWS and interagency and community partners
  - Involves an initial face-to-face assessment by CWS, either alone or with one or more interagency and/or community partner who are enlisted based on the information gathered at screening.
- Path #3: Child Welfare Services Response
  - Most similar to the child welfare system‘s traditional response
  - CWS is responsible for the first face-to-face visit
  - CWS initiates a comprehensive family assessment and arranges for any immediate support services needed

Model estimation

- Models to predict categorical outcomes
- Ordered logit
  - Could not be used
  - Proportionality of odds assumption not met
- Multinomial logit
  - Used
  - Independence of irrelevant alternatives assumption met

MATRIX OUTCOMES MODEL

Why we can use FDM data

- DR paths in California determine the level of CW involvement.
- DR path determined at intake call. It does not take family engagement information into decision
- FDM data allows us to isolate the effects of DR paths while controlling for family strengths and differences across collaboratives.
- FDM data allows us to compare only within DR cases to test the hypothesis stated previously (this has not been done yet. Usually comparisons were made between DR cases and the Traditional CW response)
- Comparing cases under the traditional response to those of DR may confound the effects of family engagement with those of interventions.

MATRIX OUTCOMES MODEL

Data (variables)

Variables	Mean	Std. Dev.	Min	Max	Obs.
Family engagement					
Family is resistant	0.16	0.36	0	1	790
Family is willing	0.49	0.50	0	1	790
Family is committed	0.36	0.48	0	1	790
DR path					
Path3	0.11	0.31	0	1	790
Path2	0.75	0.44	0	1	790
Path1	0.15	0.35	0	1	790
Demographic variables					
White	0.16	0.36	0	1	790
Hispanic	0.61	0.49	0	1	790
African American	0.05	0.21	0	1	790
# of children younger than 6	1.06	0.92	0	6	790
Family strengths					
Average score in FDM indicators	3.22	0.37	1.55	4	790
Family is at risk or in crisis for sexual abuse indicator	0.12	0.33	0	1	790
Family is at risk or in crisis for substance abuse indicator	0.27	0.44	0	1	790
Collaborative					
Orange county	0.28	0.45	0	1	790
Sacramento	0.15	0.35	0	1	790
San Francisco	0.17	0.38	0	1	790
Santa Barbara	0.13	0.33	0	1	790
Ventura	0.09	0.28	0	1	790

Results of multinomial logit estimation

- Multinomial logit models estimate the effects of independent variables on the odds of a particular outcome as opposed to another outcome.
- In particular I am interested in:
  - The effect of being in path 1 or path 2 on the odds of a family being committed as opposed to resistant.
  - The effect of being in path 1 or path 2 on the odds of a family being willing as opposed to resistant.

Results of multinomial logit estimation

The model coefficients indicate that, on average, holding family strengths, demographic characteristics and collaborative effects,

* Being in Path 1 as opposed to Path 3 increases the odds of a family being..

Committed	as opposed to	Resistant	by a factor of	5.22	(p<.05)
Committed	as opposed to	Willing	by a factor of	0.77	(p>.05)
Willing	as opposed to	Resistant	by a factor of	6.76	(p<.05)

* Being in Path 2 as opposed to Path 3 increases the odds of a family being..

Committed	as opposed to	Resistant	by a factor of	2.03	(p<.05)
Committed	as opposed to	Willing	by a factor of	1.05	(p>.05)
Willing	as opposed to	Resistant	by a factor of	1.93	(p<.05)

Discussion

- Our data suggests that DR path has an impact on case manager's perceptions of family engagement level.

- For DR cases in the FDM data, those in path 3 have a lower level of perceived engagement than those in path 1 controlling for family strengths and collaborative specific effects.

Future steps and additional questions

- Examine the effect of interventions.
- Is DR path related to number and type of interventions?
- Opportunities for studying same question using changes in DR service delivery in San Francisco as a natural experiment.
- Opportunities to explore the tridimensional relationship between engagement, outcomes, and interventions