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Susan Vivian Mangold, Catherine Cerulli, Gregory Kapcar, Crystal Ward Allen, Kim Kaukeinen, and Hua He

**USING COMMUNITY-BASED
PARTICIPATORY RESEARCH TO STUDY
THE RELATIONSHIP BETWEEN SOURCES
AND TYPES OF FUNDING AND MENTAL
HEALTH OUTCOMES FOR CHILDREN
SERVED BY THE CHILD WELFARE
SYSTEM IN OHIO**

*Susan Vivian Mangold, Catherine Cerulli, Gregory Kapcar,
Crystal Ward Allen, Kim Kaukeinen, and Hua He**

INTRODUCTION

Community-based participatory research (“CBPR”) draws its research question from the community it studies, working collaboratively with community members throughout the research process as partners, rather than as objects of research.¹

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¹ For a full discussion of community-based participatory research and examples of studies using this research orientation, see *COMMUNITY BASED PARTICIPATORY RESEARCH FOR HEALTH: FROM PROCESS TO OUTCOMES* (Meredith Minkler & Nina Wallerstein eds., 2d ed. 2008).

More than two years ago, the authors came together as a research team employing CBPR in a mixed-method study.² The study used ten years of county-based financial and child welfare outcome data for both quantitative and qualitative analyses to explore the impact of sources and types of funding on children served by County Public Children Services Agencies (“PCSAs”) in Ohio.³ In particular, this ongoing research focuses on three quality outcomes that are closely linked to the mental health of the children served by the child welfare system: days in placement, days awaiting adoption, and recurrent maltreatment.⁴ The methodologies and results of this effort were originally presented at the April 2012 Symposium on Reforming Child Protection Law: A Public Health Approach at Brooklyn Law School. This article is an extension of that presentation.

Part I of this article provides background on the child welfare system in Ohio, particularly those mandates and policies that emphasize permanency and shorter time in temporary care. Descriptions of both the substantive and financial aspects of the laws and policies are briefly discussed to provide the necessary foundation for the analysis that follows. Part II explains the mental health challenges for children served by the child welfare system with reference to studies from a range of disciplines. The findings from these studies generally support efforts to move children from temporary to permanent placements through return to their biological parents, adoption, and guardianship. Specifically, the findings support efforts toward reducing three factors: (1) recurrent maltreatment by parents or kinship caregivers that can result in placement back into temporary out-of-home care; (2) numbers of placement changes while in care;

² As explained throughout this article, the research team employs phases of both qualitative and quantitative methods thus making this a *mixed-method* study.

³ This research project was discussed at an earlier stage in Susan V. Mangold & Catherine Cerulli, *Follow the Money: Federal, State, and Local Funding Strategies for Child Welfare Services and the Impact of Local Levies on Adoptions in Ohio*, 38 CAP. U. L. REV. 349 (2009). Some of the discussion in this article draws from that earlier publication.

⁴ Placement refers to all forms of temporary placement including foster care, group homes, and other forms of aggregate out-of-home care.

and (3) time in temporary care and adoption. These three factors are also used by the Department of Health and Human Services (“HHS”) to assess the county- and state-based child welfare systems nationally. Part III describes the current research study examining the relationship between sources and types of funding and outcomes that are associated with improved mental health for children served by PCSAs in Ohio. Drawing from more than ten years of county-based data collected and reported by Public Children Services Association of Ohio (“PCSAO”), coupled with a series of surveys and interviews with County Directors of Children Services in Ohio (“County Directors”), the study uses a mixed-method approach to examine the relationship between funding and outcomes for abused and neglected children in PCSAs. While still early in the current two-year study, we present here preliminary analyses, results, and future directions.

As noted, the team employs CBPR methods and is a multidisciplinary team, consisting of community-based partners from PCSAO, a law professor, a criminal justice PhD, a biostatistician expert in quantitative research, a medical anthropologist expert in qualitative research, and a data manager to oversee the myriad databases. Through constant contact regarding the questions posed and the methods employed, the authors will produce relevant, reliable findings that can be quickly translated into child welfare system reforms with a focus on delivery of funds.

I. BACKGROUND ON THE CHILD WELFARE SYSTEM

In 2010, an estimated 3.3 million children were reported as abused or neglected in the United States,⁵ including more than 116,000 in Ohio.⁶ Once a report of abuse or neglect is made, a series of legal mandates at the federal and state levels governs the operation of local child welfare systems from investigations,

⁵ CHILDREN’S BUREAU, U.S. DEP’T OF HEALTH & HUMAN SERVS., CHILD MALTREATMENT 2010, at viii (2011), *available at* <http://archive.acf.hhs.gov/programs/cb/pubs/cm10/cm10.pdf>.

⁶ PUB. CHILDREN SERVS. ASS’N OF OHIO, PCSAO FACTBOOK 3 (10th ed. 2011) [hereinafter FACTBOOK], *available at* <http://www.pcsao.org/PCSAOFactbook/PCSAOFactBook10thEdition.htm>.

to in-home services and/or out-of-home care for children and their families impacted by abuse and neglect, to adoption. In 1967, federal law first addressed out-of-home placement of abused and neglected children via executive order.⁷ A series of comprehensive federal statutes followed, including the Child Abuse Prevention and Treatment Act of 1974 (“CAPTA”),⁸ the Adoption Assistance and Child Welfare Act of 1980 (“AACWA”),⁹ the Adoption and Safe Families Act of 1997 (“ASFA”),¹⁰ and the Fostering Connections to Success and Increasing Adoptions Act of 2008.¹¹

Beginning with the Secretary of Health, Education and Welfare’s 1961 Executive Order, and then through each of these statutes, funding from the federal government has been offered to assist states in providing a comprehensive child welfare system and to bring state and local child welfare systems into compliance with federal mandates. Some of the funding is restricted funding, such as that allotted via Social Security Title

⁷ HARRY F. BYRD, ADC BENEFITS TO CHILDREN OF UNEMPLOYED PARENTS, S. REP. NO. 87-165, pt. 1, at 6 (1961). In the waning hours of the Eisenhower Administration, Secretary of Health, Education and Welfare, Arthur Flemming, issued an Executive Order effective June 1961 providing funds for out-of-home placements for children receiving Aid to Dependent Children. This order was codified into law in Spring 1961 under the stewardship of then Secretary Abraham Ribicoff. *Id.*; W. D. MILLS, AID TO DEPENDENT CHILDREN, H.R. REP. NO. 87-307 at 1-3 (1961) (Conf. Rep.). For Secretary Ribicoff’s announcement of the new legislation, see DIV. OF PROGRAM STANDARDS & DEV., AMENDMENTS TO THE PUBLIC ASSISTANT PROVISIONS OF THE SOCIAL SECURITY ACT, 24 SOC. SEC. BULL. 18, 18-19 (1961).

⁸ Child Abuse Prevention and Treatment Act of 1974, Pub. L. No. 93-247, 88 Stat. 4 (codified as amended at 42 U.S.C. §§ 5101-07, 5116-16i (2011)).

⁹ Adoption Assistance and Child Welfare Act of 1980, Pub. L. No. 96-272, 94 Stat. 500 (codified as amended at 42 U.S.C. §§ 602, 608, 620-28, 670-76 (2011)).

¹⁰ Adoption and Safe Families Act of 1997, Pub. L. No. 105-89, 111 Stat. 2115 (codified as amended in scattered sections of 42 U.S.C. and 2 U.S.C.).

¹¹ Fostering Connections to Success and Increasing Adoptions Act of 2008, Pub. L. No. 110-351, 122 Stat. 3949 (codified as amended in scattered sections of 42 U.S.C., 26 U.S.C., and 31 U.S.C.).

IV-E foster care matching funds for placement of eligible children into out-of-home care.¹² Based upon the Medicaid reimbursement formula, states receive unlimited federal matching funds for state dollars spent on out-of-home care for abused and neglected children deemed eligible for federal support.¹³ Other funds are more flexible, allowing states to use federal dollars in the manner they deem appropriate for preventive or other services in their state-based or county-based child welfare systems.¹⁴ When the child welfare system distinguishes between “restricted” or “categorical funding” versus “flexible funds,” it is referring to the type of funding allocated by some level of government and the strict requirements that must be followed or the discretion that may be used by the recipient state in spending the money directly or through the counties.

CAPTA introduced federal funding for newly mandated services regarding the reporting, investigation, and record-keeping functions of local child welfare systems as well as grants to states to develop innovative demonstration projects to prevent and address child abuse and neglect.¹⁵ AACWA added additional types of funding under the new Title IV-E for foster care and adoption assistance.¹⁶ AACWA added a requirement that “reasonable efforts” be made to reduce foster care placements in an effort to decrease unnecessary placement of children,¹⁷ and imposed a mandatory full hearing to review cases every eighteen months in an attempt to put a check on foster

¹² Foster Care Maintenance Payments Program, 42 U.S.C. § 672 (2011).

¹³ See Susan V. Mangold, *Poor Enough to Be Eligible? Child Abuse, Neglect and the Poverty Requirement*, 81 ST. JOHN’S L. REV. 575, 576 (2007) (“[Federal] foster care and adoption assistance subsidies are uncapped entitlement programs under title IV-E of the Social Security Act . . .”). For child eligibility requirements, see 42 U.S.C. § 672(a)(3) (2011).

¹⁴ See, e.g., 42 U.S.C. §§ 621–28 (2011) (outlining the Stephanie Tubbs Jones Child Welfare Services Program, which “promote[s] State flexibility in the development and expansion of [its] coordinated child and family services program[s]”).

¹⁵ 42 U.S.C. §§ 5101–07, 5116–16i (2011).

¹⁶ *Id.* §§ 602, 608, 620–28, 670–76.

¹⁷ *Id.* § 671(a)(15).

care drift.¹⁸ Additionally, funding was made available for adoption assistance to reduce financial barriers to adoption.¹⁹ The legislative plan was that permanency via return home would be emphasized by the reasonable efforts mandates or, alternatively, permanency via adoption would be encouraged with funding from the adoption assistance funds. Each of the subsequent statutes added new mandates accompanied by funding available to the states to meet the mandates.²⁰ Some of this funding was restricted to specific uses; other funding allowed state or local discretion and experimentation.

ASFA made explicit that the needs and welfare of the child must be paramount in all child welfare decisions. This link between decision making and child well-being was further underscored in ASFA's requirement of a twelve-month permanency hearing. This new provision furthered the attempt to limit foster care drift, addressed earlier by AACWA, by reducing the scheduling of the hearing back to twelve instead of eighteen months and specifically focusing on permanency. ASFA further mandated a connection between child well-being and attempts to limit time in placement by requiring that a petition to terminate parental rights be filed whenever a child is in placement for fifteen out of twenty-two months.²¹

All states follow the federal mandates from these and other statutes and codify them into state law in exchange for federal funds. Nationally, all states use some combination of federal, state, and local funding via a variety of funding types to provide child welfare services and specifically to provide out-of-home services to over 400,000 children.²²

All states, therefore, use both federal and state funds to finance services to abused and neglected children. Many states, including Ohio, operate their child welfare system at the county

¹⁸ Adoption Assistance and Child Welfare Act of 1980, Pub. L. No. 96-272, § 475(5)(C), 94 Stat. 500.

¹⁹ 42 U.S.C. § 670.

²⁰ Mangold & Cerulli, *supra* note 3.

²¹ Adoption and Safe Families Act of 1997, Pub. L. No. 105-89, § 103, 111 Stat. 2115.

²² CHILD WELFARE INFORMATION GATEWAY, FOSTER CARE STATISTICS 2010, 1 (May 2012), <http://www.childwelfare.gov/pubs/factsheets/foster.pdf>.

level. County funds, considered “local funding,” are added to the federal and state dollars to provide total funding for the county to operate its child welfare system. These three sources of funding—federal, state, and local—vary in percentages among the fifty states. Ohio leads the nation in the percentage of local funds contributed to the federal/state/local funding pot.²³

In Ohio, approximately half of the eighty-eight counties have a dedicated local tax levy for child welfare services, providing flexible funding at the local level.²⁴ In those counties with a dedicated levy, voters have opted for a tax that is specifically targeted for child welfare services, and they have voted to continue the tax.²⁵ There is no federal or state mandate channeling the use of these local levy funds at the county level. The use of these flexible local dollars is left to County Directors in accordance with their local fiscal management. In those counties with a children’s services levy, therefore, the County Director has more flexible, local funds available to provide for the needs of children receiving services from the child welfare system.

From 1997 to 2005, the federal government also provided flexible federal funding via Title IV-E waivers to fourteen “ProtectOhio” Counties and to an additional four counties through 2009. As discussed in Part I, Title IV-E provides federal matching funds that must be used for adoption assistance and foster care in addition to other specified services. The Title IV-E waiver allowed those states, including Ohio, participating in the federal “funding experiment” to receive their allotted

²³ CLASP, CHILD WELFARE IN OHIO 1–2 (2010), *available at* http://www.clasp.org/admin/site/publications_states/files/child-welfare-financing-ohio-2010.pdf. The funding statistics for the U.S. are located at <http://www.clasp.org/admin/site/publications/files/child-welfare-financing-united-states-2010.pdf>. Comparing each state factsheet compiled by CLASP shows that Ohio has the highest rate of local funding. For a discussion of these state statistics and the comparison with Ohio, see Mangold & Cerulli, *supra* note 3, at 376.

²⁴ FACTBOOK, *supra* note 6, at 7.

²⁵ *Id.* For a full discussion of levy elections, see CASEY FAMILY PROGRAMS, HOW TO GENERATE COMMUNITY SUPPORT FOR CHILD WELFARE LEVIES (2010), *available at* <http://www.pcsao.org/PCSAOTools/2010/CaseyFamilyOhioLevyCampaign.pdf>. For a discussion of levy funding in Ohio, see generally Mangold & Cerulli, *supra* note 3, at 376–82.

federal funds without the usual requirements concerning how the funds had to be used for eligible children. In effect, the ProtectOhio Counties were allowed to flexibly use a pot of federal dollars that would usually carry categorical mandates. In exchange for the flexibility, the counties participating in the Title IV-E waiver experiment were given a capped amount of funding, and forfeited the protection of unlimited funds for foster care placement.²⁶ Those counties that did not participate in the waiver maintained the right to collect unlimited federal matching funds for eligible children receiving foster care services but did not have discretion in terms of how to allocate those federal funds.

The federal funding experiment was evaluated in Ohio using fourteen “comparison counties” that were not operating under a Title IV-E waiver but were instead receiving their federal funds under the traditional federal/state matching funds process.²⁷ The control counties had unlimited federal matching funds available but could only use those funds in accordance with the categorical mandate restrictions.²⁸ The federal evaluation did not find statistically significant improvement in the reduction of time children spent in care²⁹ or in other key outcomes linked to children’s mental health.³⁰ The evaluation did find an increased amount of services provided to families to prevent placement.³¹

It is against this background of federal and state laws and of federal, state, and local funding that the present study was initiated to investigate whether the source (federal/state/local) and type (restricted categorical mandate/flexible) of funding impact quality outcomes for children served by PCSAs in Ohio.

²⁶ See HUMAN SERVS. RESEARCH INST., COMPREHENSIVE FINAL EVALUATION REPORT: OHIO’S TITLE IV-E WAIVER DEMONSTRATION PROJECT “PROJECT OHIO” 1-2 (2010), available at <http://jfs.ohio.gov/ocf/ProtectOHIOComprehensiveFinalEvaluationReportExecutiveSummar.pdf>.

²⁷ *Id.*

²⁸ Compare *id.* (describing the fund allocation flexibility that counties receive through participation in the program), with 42 U.S.C. § 672(a)(3) (2011).

²⁹ HUMAN SERVS. RESEARCH INST., *supra* note 26, at 6.

³⁰ *Id.* at 9.

³¹ *Id.* at 5-6.

The outcomes focused upon are those that closely correlate with mental health indicators, as further explained below.

II. MENTAL HEALTH CHALLENGES FOR CHILDREN IN FOSTER CARE

Children in foster care suffer high rates of mental illness that can be linked, in part, to their experiences while in state care, particularly the length of time spent in temporary care.³² In 1995, two years before the passage of ASFA, which focused on permanency and shortening the length of stay in temporary placement, the Child Welfare League of America (“CWLA”) published *Assessing the Long-Term Effects of Foster Care: A Research Synthesis*.³³ Findings from the reported studies showed troubling mental health outcomes for adults who had experienced foster care: greater mental health disturbance,³⁴ higher rates of care by psychiatrists,³⁵ and greater use of psychotropic drugs.³⁶ The reported studies found that those who had experienced temporary out-of-home care were more often classified as “disturbed” than those who had achieved permanency through adoption.³⁷ Overall, the CWLA synthesis stated:

³² See, e.g., Comm. on Early Childhood, Am. Acad. of Pediatrics, *Developmental Issues for Young Children in Foster Care*, 106 PEDIATRICS 1145, 1145 (2000); Neal Halfon et al., *Mental Health Service Utilization by Children in Foster Care in California*, 89 PEDIATRICS 1238, 1242 (1992). See generally THOMAS P. McDONALD ET AL., *ASSESSING THE LONG-TERM EFFECTS OF FOSTER CARE: A RESEARCH SYNTHESIS* (1995) (providing “a comprehensive and critical review of the impact of [family foster care and group (or institutional) care] on the children served”); Diana J. English et al., *Maltreatment’s Wake: The Relationship of Maltreatment Dimensions to Child Outcomes*, 29 CHILD ABUSE & NEGLECT 597 (2005) (finding that “maltreatment dimensions” have “distinct effects on child functioning”).

³³ McDONALD ET AL., *supra* note 32.

³⁴ *Id.* at 109.

³⁵ See *id.* at 109–10 (“[W]omen who admitted to a separation from one or more of their parents during childhood were more likely than others . . . to have seen a psychiatrist . . .”).

³⁶ See *id.*

³⁷ *Id.*

Because of the drastically varying measures of mental health used in the 13 research studies that examined this area . . . it is difficult to say anything beyond the general finding that adults formerly in care as children seem as adults to exhibit problems in the area of mental health.³⁸

This general finding has been well documented by studies in a variety of disciplines with recent research showing changes in brain development as a result of childhood stress exposure caused by maltreatment.³⁹ Studies also identify types of maltreatment, repetition of maltreatment, stability of out-of-home placements, length of placement, and other variables impacting the mental health outcomes for abused and neglected children.⁴⁰ In sum, the longer a child is in unstable placements in temporary care, the greater the impact on mental health throughout the child's life.

In 2000, the American Academy of Pediatrics published a report by its Committee on Early Childhood, Adoption and Dependent Care. The report concluded:

³⁸ *Id.* at 128. For children in “stable” foster care placements, some studies suggest less mental health impact despite a longer time in care. *Id.* at 136–37.

³⁹ See Martin H. Teicher et al., *Childhood Maltreatment is Associated with Reduced Volume in the Hippocampal Subfields CA3, Dentate Gyrus, and Subiculum*, 109 PROC. NAT'L ACAD. SCI. E563, E563–64 (2012) (documenting the negative effects of childhood maltreatment and early stress exposure on brain development).

⁴⁰ See generally Comm. on Early Childhood, *supra* note 32 (explaining the link between pediatric state care and high incidence of mental illness); Ann F. Garland, *Type of Maltreatment as a Predictor of Mental Health Service Use for Children in Foster Care*, 20 CHILD ABUSE & NEGLECT 675 (1996) (describing types of foster child maltreatment); Jody Todd Manly et al., *Dimensions of Child Maltreatment: Contributions of Developmental Timing and Subtype*, 13 DEV. & PSYCHOPATHOLOGY 759 (2001) (examining “the dimensions of developmental timing, subtype, and severity of maltreatment and their relations with child adaptation”); Jody Todd Manly et al., *The Impact of Subtype, Frequency, Chronicity, and Severity of Child Maltreatment on Social Competence and Behavior Problems*, 6 DEV. & PSYCHOPATHOLOGY 121 (1994) (examining “the impact of dimensions within maltreatment such as the severity, frequency, chronicity, and subtypes of maltreatment and their relationship to child outcome”).

Every effort should be made to rapidly establish a permanent placement for the child. Tangible continuity in relationships with family and friends is essential for a child's healthy development. Stability in child care and the school environment is important. Multiple moves while in care (with the attendant disruption and uncertainty) can be deleterious to the young child's brain growth, mental development, and psychological adjustment.⁴¹

Subsequent studies have further substantiated these findings. They have also “disentangled [the] cascading relationship” between maltreatment, time in care, and stability of temporary placements as sources of impact on the mental health of children who experience temporary placement.⁴²

The strong evidence suggesting the need for shorter lengths of stay in temporary care and an emphasis on permanency and adoption is reflected in the various federal mandates states must follow to receive federal funds as discussed in Part I. In auditing the use of these funds by child welfare systems in the States, HHS uses a set of outcome measures including recurrent maltreatment, length of stay in care, and days awaiting adoption to promote the policy goals of shorter temporary placement, permanency, and adoption. These outcome measures are federally identified system goals to reduce the mental health risks to children while in foster care. The measures are part of HHS's Child and Family Services Review—the federal government's review of each state's child welfare system. The present study adopted these outcome measures as worthy of study to determine whether the source or type of funding impacts outcomes linked to improved mental health for children receiving child welfare services.

There has not been comprehensive, regular assessment of the mental health of children receiving child welfare services in Ohio or of the impact of the services they receive on their future health. In one study of public agencies in eighty-six of the

⁴¹ Comm. on Early Childhood, *supra* note 32, at 1148.

⁴² David M. Rubin et al., *The Impact of Placement Stability on Behavioral Well-Being for Children in Foster Care*, 119 PEDIATRICS 336, 336 (2007).

eighty-eight counties in Ohio, the primary designation of services for eighty-eight percent of the studied youth was mental health related.⁴³ The present study adopts the outcome measure utilized by HHS to conduct a county-level analysis but recognizes that future work may be needed to explore the child-level mental health outcomes for children receiving services from PCSAs in Ohio by analyzing child level data and directly talking with the children themselves. In addition, HHS outcomes may need to change to reflect emerging problems such as disrupted adoptions that may impact children's mental health. In the course of this study we will analyze the relationship between the current outcomes and the mental health of children in the hope of informing policy at the legislative and administrative levels. As new problems that may need to be audited are discovered, the research team will report them for further research and policy adoption as new outcome measures, as appropriate.

III. CBPR STUDY OF IMPACT OF SOURCES/TYPES OF FUNDING ON MENTAL HEALTH RELATED OUTCOMES

The authors are presently conducting a CBPR project funded by a grant from the Public Health Law Program of the Robert Wood Johnson Foundation to study whether the source and type of funding for child welfare services mediate outcomes by the PCSAs in Ohio. The overarching aims are to assess whether and how funding origination and flexibility impact children's mental health. This study has public health significance, as it addresses a question that permeates all aspects of public health law research, though researchers of all disciplines, policymakers, and advocates have largely ignored it: does the *source and/or type* of funding impact the health outcomes? Although public health law research should seek to study "the whole range of institutions, practices, and beliefs through which laws influence

⁴³ STEPHEN M. GAVOZZI ET AL., OHIO STATE UNIV. CTR. FOR FAMILY RESEARCH, FINAL REPORT ON THE FAST \$05 INITIATIVE 3, 15 (2005) (on file with author).

health and the determinants of health,”⁴⁴ researchers have not properly studied funding laws. This study does not focus on the *amount* of funding; rather, it addresses the source (federal versus state versus local) and the type (flexible versus restricted). It is also key that this study does not address the legal mandates that lead to, or hinder, healthy outcomes for the population of children in foster care; instead, it focuses upon the source and type of funding, legislated at the federal, state, and local level, yet deployed to provide the mandated services at the county level. This is a particularly important topic for public health law and policy, given budget stresses at every level and demands to prioritize scarce resources. This study specifically focuses on whether the source and type of funding impact the healthy outcomes for abused and neglected children in out-of-home care in Ohio, and if so, why. Unfunded mandates are not included in this analysis since the focus is upon funded mandates wherein the source and type of funding can be analyzed.

The research questions posed by this study are as follows:

1. Does the funding source (federal versus state versus local) and/or type of funding (flexible versus restricted funds) for child welfare services impact the child welfare outcomes that reduce mental health challenges for children receiving county services?
2. What are the mechanisms for associations found between certain sources and/or types of funding and child welfare outcomes that lead to improved mental health outcomes?
3. Are these associations robust enough to hold constant for African American children receiving child welfare services and overcome historical disparities?

To date, this study has completed foundational research and has found a positive correlation between flexible local funding and outcomes that lead to improved mental health for children in foster care by assessing time in care and movement toward adoption. These preliminary findings are especially interesting in Ohio, where earlier evaluations of more than ten years of federal

⁴⁴ Scott Burris et al., *Making the Case for Laws that Improve Health: A Framework for Public Health Law Research*, 88 *MILLBANK Q.* 169, 174 (2010).

flexible funding did not find a statistically significant connection between flexible funding and outcomes for abused and neglected children receiving county services. That evaluation compared the ProtectOhio communities to control counties, selected based on comparisons such as size, population, etc. The present analyses differ from the federal evaluation perhaps because the federal evaluation did not consider that some of the fourteen comparison counties used as control counties in the federal evaluation had flexible local funding through levies, which may have confounded the analysis. It is also possible that the “Hawthorne Effect” was occurring—those counties knew they were being watched, and therefore the results were impacted by the change in actions resulting from this awareness.

Using flexible funding from both local and federal sources in the preliminary analysis, the results of our study were stunning: in counties with *both* federal and local flexible funding, children in foster care wait a median 301 days for adoption; for counties with *either* federal or local flexible funding, children wait a median 1207 days for adoption; for counties with *neither* federal nor local flexible funding, children wait a median 2716 days for adoption.

Based upon these preliminary results, the authors hypothesized that healthy outcomes for children in foster care, including African American children—regarding fewer median days in out-of-home care, shorter waiting period until adoption, and lower rates of recurrent maltreatment—improve when local dedicated levies are used to pay for child welfare services, and improve even further when there are also federal flexible dollars available. Many studies have evaluated disparities for African American children in the child welfare system. However, we hypothesized that local funding flexibility would ensure the welfare of all children, despite racial differences. Because local funding is flexible, reliable over time, and requires local accountability, outcomes improve. Both pilot studies, conducted in 2009 and 2011, provide the foundation for this hypothesis.⁴⁵

The study has potential impact well beyond the borders of Ohio or even the field of child welfare. The study may have

⁴⁵ Mangold & Cerulli, *supra* note 3.

implications for: (1) funding mandates in Ohio; (2) funding mandates throughout the United States; and (3) the field of health law and policy research which heretofore has focused on substantive laws, not fiscal or appropriation laws. The study may also inform debate about legal mandates and administrative outcomes by assessing the relationship between the funding source or type and its effect on the HHS outcome measures.

Our research team formally came together to develop the proposal that led to the current research project when PCSAO and SUNY Buffalo Law School received a grant from the National Institute of Mental Health of the National Institute of Health (“NIH”) to fund Professor Mangold and Mr. Kapcar to attend the CBPR Institute in San Jose in 2010. Dr. Cerulli was part of the conference leadership and Ms. Allen attended as well to assemble the four lead partners on this research team. In San Jose at the CBPR Institute, the research team had the opportunity to consult with NIH project managers and HHS consultants to create the methodological and funding aspects of this project and to refine the novel questions it poses for investigation. All of the consultants advising the team emphasized the study’s value given the current mix of funding sources and types in every state that have not been analyzed distinctly from the substantive laws. Findings that certain characteristics of funding lead to healthy outcomes for children in care would create a dialogue for examination of policies at the federal and state levels.

The team received funding from the Robert Wood Johnson Foundation’s Public Health Law Research Program for the four lead research partners to work with a statistical team assembled by Dr. Cerulli at the University of Rochester to conduct quantitative and qualitative analyses of the impact of sources and types of funding on outcomes for children under the care of PCSAs in Ohio. Over the two years of project funding, the team will complete the phases of the grant detailed below and develop future directions for their research into funding and outcomes in the child welfare system.

Public health law research is a relatively new field focusing on the impact of substantive laws on health problems. While there are some unfunded mandates, most health and welfare laws

at the federal and state levels contain funding provisions or have accompanying appropriations statutes. These provisions and fiscal statutes have not been analyzed separately from the substantive laws, although there is wide variety among the sources and types of funding for the same substantive mandate. Evidence on the impact of the type and source of funding and on the characteristics of funding that lead to healthy outcomes is necessary for policymakers to reference when designing fiscal mandates, especially in recent years of declining revenues at every level. Executives in turn become key informants for research projects related to funding and outcomes.

The eighty-eight County Directors are a key source of qualitative data collection and verification, and based on CBPR principles, this work should not be carried out in their absence.⁴⁶ In Ohio, out-of-home services for abused and neglected children are delivered at the county level to more than 23,000 children and families annually, and these County Directors care for and protect these children.⁴⁷ The County Directors already have a long-term, ongoing relationship with PCSAO that will facilitate participation in the present study. In March 2012, PCSAO partners arranged for Dr. Cerulli and Professor Mangold to present the research project at the plenary meeting of the County Directors organized semiannually by PCSAO. The discussion was robust, and several suggestions were incorporated into the methodology moving forward. In particular, the County Directors emphasized the importance of other county stakeholders such as the courts in the success of child welfare outcomes. Dr. Cerulli and Professor Mangold will continue to attend these semiannual meetings, as well as the Annual Conference organized by PCSAO, to keep the County Directors informed about findings of the study and to ensure the relevance and precision of the study. The County Directors will assist not only in the methodology, but also in every stage of the research

⁴⁶ See Rosaline S. Barbour, *Checklists for Improving Rigor in Qualitative Research: A Case of the Tail Wagging the Dog?*, 322 BRIT. MED. J. 1115, 1115–17 (2001); Catherine Pope et al., *Analyzing Qualitative Data*, 320 BRIT. MED. J. 114, 114–16 (2000).

⁴⁷ FACTBOOK, *supra* note 6, at 25.

project including dissemination of the research findings and, most importantly, in translating the findings into public policy.

A. Methods, Measures, and Analysis of Current Research Project

This study employs a four-phase mixed-method approach:

1. Foundational research of similar key outcomes, noted below, provides the basis to conduct a multivariate longitudinal analysis of ten years of county-based fiscal and outcome data compiled from public records and verified by local County Directors. Findings revealed positive associations worthy of further attention. The instant analysis focuses on relationships between dedicated local children's services levies and selected healthy outcomes for children in out-of-home care, including, but not limited to, shorter median days in out-of-home care, fewer days awaiting adoption, and reduced recurrent maltreatment. Additional analysis will examine disparities for African American children in out-of-home care and whether funding source and/or type bear relationships to disparities, unexamined nationally to date. The authors also hope to identify and collect data on outcomes related to children receiving services from the PCSAs who are not placed into out-of-home placements.

2. PCSAO selected five County Directors for in-depth, semistructured, in-person interviews ("key informant interviews") to understand practices regarding source and type of funding and service delivery. The interviews, completed in May 2012, explored any correlations found in the analysis noted above. Transcripts from those interviews are being analyzed to assist in drafting a survey for all eighty-eight County Directors to be conducted later in 2012.⁴⁸

3. The team will survey eighty-eight County Directors online, employing a "five-contact system"⁴⁹ to notify and remind

⁴⁸ Findings from the key informant interviews and subsequent phases of the study will be reported in future publications.

⁴⁹ DON A. DILLMAN ET AL., *INTERNET, MAIL, AND MIXED-MODE SURVEYS: THE TAILORED DESIGN METHOD* 242–43 (3d ed. 2008).

the County Directors to complete the survey. The belief is that multiple, varied contacts will more likely prompt responses than a one-contact approach. PCSAO will conduct additional follow-up during their communications regularly distributed to the eighty-eight County Directors. The team will utilize mixed methods to analyze the data for recurrent responses regarding characteristics of funding sources and healthy outcomes with a focus on emerging themes regarding local dedicated tax levies versus local general funds for children's services.

4. The authors will verify Phase Three findings with semistructured interviews, with thirty stratified, randomly selected County Directors (fifteen levy versus fifteen nonlevy; five each of small, medium, and large/metro counties). Ohio currently has eighteen counties with Title IV-E waivers allowing for unique flexibility in the use of certain federal funds. These eighteen counties include the Columbus and Cincinnati areas and, in total, represent one-third of the state. County Directors will be chosen from the waiver versus nonwaiver counties represented. The focus will be on the impact of one type of funding: local dedicated tax levies for children's services dependent upon data from Phases One to Three. Due to the ongoing relationship between the team members, the study will seek additional funding to run additional quantitative analysis informed by Phases Three and Four should new questions emerge.

The preliminary analysis was conducted on de-identified data compiled at a state level. The analysis was on a county level, and therefore contained no person-level information. Thus, we were unable to identify any particular child in our data file. The team drew the key informants and will draw the semistructured interview participants from a population of County Directors comprised of government officials. As such, the federal regulations provide for all aspects of this research as exempt from Internal Review Board approval because the data is de-identified for Phase One and because the research subjects are acting in their official capacities and providing information related to their professional roles for the qualitative phases.⁵⁰

⁵⁰ Federal laws guide researcher behavior to protect participants. 45

The research team has received proper approval from both the University at Buffalo and the University of Rochester Internal Review Boards.

1. Phase One: Quantitative Analysis

The team utilizes ten years of county-based fiscal and outcome data drawn from public sources and compiled biannually by PCSAO for publication in their *Factbook*.⁵¹ Within this sample, the unit of analysis is the county. Understandably, a child can enter the data set multiple times if he or she was reported as abused and/or neglected more than once during a particular fiscal year period, or across the time frame (1999 to 2010). However, because this data is reported in the aggregate, this study is limited by its inability to compensate for this by nesting the data—that is, understanding how many children reenter the system. Rather than a person-level file, we have a county-level file. An overall summary of sample characteristics for county-level data will be provided. SPSS is used for data management and SAS for all analyses.⁵² Descriptive statistics were utilized to clean the data for accuracy. The data was first

C.F.R. § 46.101 (2005). There are three levels of review: exempt, expedited, and full-board review. *Id.* §§ 46.101, 46.109, 46.110. Each level requires additional security steps (reviewed by one person of the board, reviewed by a subcommittee of the full board, or reviewed by the full board).

⁵¹ Federal law requires states to provide aggregate state-level data on the operation of many phases of the child welfare system. 45 C.F.R. § 1356.85 (2008). In Ohio and many states, services are delivered at the county level but county-level data, especially over time, is difficult to obtain. In Ohio, PCSAO has published county-level data in ten editions of its biennial *Factbook*. See, e.g., FACTBOOK, *supra* note 6. The data, from all eighty-eight counties, is verified with the County Directors several times in the collection and publication process for accuracy and completeness. *Id.* at 26, 204. At the National Institute of Mental Health Community Based Partnership Research Workshop, discussed *supra* in Part III, consultants from HHS were unaware of any other sources of comprehensive county-based fiscal and outcome data. See *supra* Part III.

⁵² SPSS and SAS are analytic software programs. See *IBM SPSS Software*, IBM, <http://www.ibm.com/software/analytics/spss/> (last visited Oct. 23, 2012); *SAS Analytics*, SAS, <http://www.sas.com/technologies/analytics/> (last visited Oct. 23, 2012).

cleaned and assessed for inconsistencies. Next, correlation matrixes were run to assess for intercollinearity. If the data were normally distributed, we ran linear regression. If the data were not normally distributed, we utilized general estimating equations, which are robust enough to allow for non-normally distributed outcomes. For the longitudinal analysis, we utilized a linear mixed model for percentage awaiting adoption, and a generalized estimating equation model on three outcomes—the average days in out-of-home care, median days awaiting adoption, and percentage of adoptions finalized.

Preliminary findings which provide the foundation for this report are noted above and cited elsewhere.⁵³ The first quantitative phase assessed four main outcomes related to source of funding:

1. The Average Days in Out-of-Home Care;
2. Median Days Awaiting Adoption;
3. Number of Children Awaiting Adoption; and
4. Number of Adoptions Finalized.

a. The Creation of the Working Model

Originally, our model included four variables: the funding percentages from three sources (county, state, and federal); whether there was a local levy or not; whether the county was a ProtectOhio county; and the county size. Dr. Cerulli and Professor Mangold presented findings to the County Directors at the PCSAO Directors Meeting. The Directors' feedback helped to improve the model. After considering the comments from the Directors, the interdisciplinary team met and refined the model. First, we noted that because state contributions were largely formulaic (based on county size), that variable was not necessarily needed in the model, as we were already controlling for county size. Second, the local contribution was highly correlated to the local levy variable; thus, we could remove the local contribution variable without distorting the regression analysis. The next important finding was that the percentage of dollars from the three sources—federal, state, or local—may be

⁵³ Mangold & Cerulli, *supra* note 3.

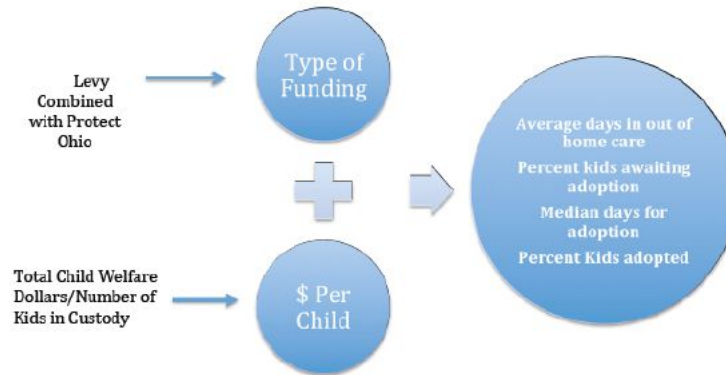
less important than the cost per child. The County Directors were most interested in “type and source of funding” being combined, and the inclusion of cost per child in the model. Further issues centered on the belief that the number of children living in poverty in a community would surely impact outcomes. The team added a poverty indicator to the model—the number of children under the age of eighteen living in poverty. In all, six independent variables were included in the model: type of funding; federal money in percentage; federal money in amount; cost per child; percentage of children in poverty; and county size. At the meeting, many County Directors offered insight into how they believe the research team should collect data and analyze the results. In particular, our four dependent variables, based on the HHS metrics of success, are less meaningful to the County Directors and they had suggestions for alternative measures of success that we will pursue in latter phases on the research.

At first blush, the federal indicators of success, noted above as our specific aims, seem to be reasonable for our analyses of the impact of funding. However, after reconsideration in partnership with the County Directors and the interdisciplinary team, we quickly operationalized our dependent variables slightly differently. Using the number of days in temporary care continued to seem appropriate, especially given the legislative mandates aimed at reducing stays in temporary care, discussed above in Part I. However, use of the number of children awaiting adoption and those who had adoptions finalized seemed less appropriate than the use of a ratio of the number of children experiencing both events divided by the total number of children in care. Otherwise, a small county, with few children awaiting adoption or finalizing adoption, would appear to have worse outcomes. Accordingly, ratios were computed based on the total number of children in care as the numerators, divided by the variable in question. The Directors agreed with the team that adoption measures were key outcomes but assisted the team in developing a more accurate measure of the outcome from the available PCSAO data.

The team finally settled on a model that incorporated all the feedback and ran the analyses. Each specific aim was run as a

separate analysis. The final four models were run to incorporate the longitudinal data.

Diagram 1



b. Findings

i. Year-Specific Analysis

For all four outcomes, there were no variables that were statistically significant for years 2007 or 2009. For the year 2005, neither the average days in out-of-home care nor the percentage of children adopted were statistically significant in relation to any outcomes. However, in the year 2005, the cost per child, federal percent of income, and percentage of children in poverty were all related to the percentage of children awaiting adoption. In 2005, we found that the greater the proportion of federal money to state and local money, and the higher the cost per child, the greater the percentage of children awaiting adoption there was. However, contrary to what we suspected, the greater the percentage of children there are in poverty, the fewer children there are awaiting adoption (per 100 children). For median days awaiting adoption in 2005, only county size and poverty were related. Specifically, compared to the largest counties, the smaller counties have far fewer days awaiting adoption (122), and the medium counties have children awaiting adoption fifty-four more days than the larger counties.

ii. Longitudinal Analysis

When the analysis was run longitudinally, each outcome was run accounting for the three time periods (2005, 2007, and 2009) at the same time. Table 1 provides an overview of the findings:

Table 1: Longitudinal Analysis for the Four Outcome Variables

	Average Days in Out-of-Home Care	Median Days Awaiting Adoption	Percent of Kids Awaiting Adoption	Percent of Adoptions Finalized
Type of Funding		X	X	
Federal Percent				
Federal Amount				
Cost Per Child		X		X
Percent Child Poverty				
County Size		X		

For the longitudinal analyses, interestingly, the median days awaiting adoption does appear to be driven by variables of interest—namely, the type of funding, cost per child, and county size. Specifically, those counties without any source of flexible funding have children waiting ninety-nine days longer for placement than those with both types of funding. For those with one type of funding, they wait seventy-three days more than in those counties with both types of federal funding. Also, as counties spend \$10,000 more per child on child welfare, they reduce the days awaiting adoption by eighteen days. The smallest counties have the shortest waiting times, the largest

have longer times, and middle size counties have the longest wait times.

Regarding the percentage of children awaiting adoption, those counties with no local funding have the lowest percentage, compared to those with one type of flexible funding. This suggests that those counties with combined flexible dollars have the greatest percentage of children freed for adoption and ready for adoption finalization. Because these findings are controlled for size of the county and cost per child, type of funding seems to be driving this outcome.

The cost per child drives the actual finalization process. For every \$10,000 per child increase in child welfare spending, there is a one percent increase in adoption finalization. Given the health outcomes noted above that are caused by prolonged abuse and instability, this finding, combined with the finding of an eighteen-day reduction in days awaiting adoption, is important for County Directors administering funds and directing them to specific uses and policymakers deciding how to appropriate funds more generally.

Given that there are no variables related to average days in out-of-home care, it is possible other variables are controlling for this outcome. Future analysis will include examining whether federal, state, or local policy mandates, which dictate case processing, are affecting the number of days in care. It is possible that statutory waiting periods, federally imposed, are controlling these outcomes more than the type or source of funding.

Although we have controlled longitudinally for a host of potential variables that might impact outcomes, it is possible that there is a variable missing. Because these analyses are being conducted on a statewide level, it is also possible that there are policy changes that are occurring that have not been included in the model yet.

2. Phase Two: Key Informant Interviews

To seek feedback from our community partners, we began Phase Two, the Qualitative Key Informant Interviews, to review our findings with County Directors. Mr. Kapcar and Ms. Allen,

who have worked with all eighty-eight County Directors, chose five informants whom they determined would be knowledgeable about funding and representative of the larger pool of County Directors in terms of county size and type of funding with both federal IV-E waiver county and local levy counties represented. The team designed a series of open-ended, fact-based questions in a Guidebook for Mr. Kapcar and Professor Mangold to pose to the key informant County Directors during in-person interviews where both Mr. Kapcar and Professor Mangold were present and where the Directors were invited to include the person in their county who assists them with preparation of their budget at their discretion. These interviews were tape-recorded with full consent by the key informants. Examples of questions included:

For sources of funding:

1. Is there a difference in the effectiveness of federal, state, or local funds? Why?
2. What source of funding (from the three above) do you find most effective for preventive services and to move children out of the custody of the county? Why?

For types of funding:

1. We asked you to consider all of the various types of funding used for children in the custody of the county agency and for prevention. Which of these types of funding most directly improves preventive services? Quality outcomes for children in the custody of the county agency? Why?
2. What flexible sources of funds does your county now use for children in the custody of the county agency? For preventive services? How do you use these flexible sources for kids in the custody of the county agency and for preventive services?
3. Can you give us an example of when a specific type of funding made a difference in outcomes for children in the custody of the county agency? For the delivery of preventive services?
4. What is the most predictable type of funding? Does

predictability make it more effective?

5. What is the most reliable type of funding? Does reliability make it more effective?

6. What are the accountability requirements for each type of funding? Do any of those requirements make the type of funding more effective?

Since there were only five interviews, and the purpose of this phase was to help the team develop the survey for the County Directors, the key informant interviews are being coded and read for themes and recurrent responses.

B. Phases Three and Four: Survey and Interviews Upcoming For Current Project

Once the key informant interviews are completed, we will use the information from the key informant interviews to develop a tailored survey for the eighty-eight County Directors of Children Services. All eighty-eight County Directors comprise the population of informants, rather than a randomly selected sample. Personalized emails from PCSAO to the County Directors will be sent using the five-contact method for web survey implementation⁵⁴ with a possible additional contact if needed. The survey will be followed by semistructured interviews with thirty County Directors. The goal of the project is to have a continuous feedback loop whereby the statistical team tests models created by the practitioners, and then refines and reruns the models after reflection by the practitioners, either the entire pool of County Directors or a select sample of individuals. CBPR principals view this partnership as likely to yield the most helpful findings and to ensure their translation into practice.

CONCLUSION

The problems facing the child welfare system in every state have confounded policymakers, administrators, and children's services workers since the inception of the federally funded child

⁵⁴ DILLMAN ET AL., *supra* note 49, at 242–43.

welfare system.⁵⁵ Employing all disciplines to study the problems at the county, family, and child level and suggesting reforms has been important and continues to be important as understanding of the harms children suffer from early maltreatment and placement in temporary care goes beyond behavioral understanding to the brain cell level. Concurrently, multidisciplinary methodologies are increasingly important to produce relevant research that can translate into needed reform. We have presented our current project grounded in CBPR principles to examine whether the source and type of funding impact outcomes that correlate with mental health well-being for children receiving county child welfare services, particularly those that measure time in care and movement to permanent placements. The authors hope to contribute to the discussion of employing public health law methods to study the child welfare system and to reform the system to better serve the children it is designed to protect.

⁵⁵ In its 1991 Final Report, the National Commission on Children and Families wrote, “[i]f the nation had deliberately designed a system that would frustrate the professionals who staff it, anger the public who finance it, and abandon the children who depend on it, it could not have done a better job than the present child welfare system.” NAT’L COMM’N ON CHILDREN, *BEYOND RHETORIC: A NEW AMERICAN AGENDA FOR CHILDREN AND FAMILIES* 293 (1991).