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## Disrupting the Path from Childhood Trauma to Juvenile Justice: An Upstream Health and Justice Approach

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# DISRUPTING THE PATH FROM CHILDHOOD TRAUMA TO JUVENILE JUSTICE: AN UPSTREAM HEALTH AND JUSTICE APPROACH

*Yael Cannon\* & Dr. Andrew Hsi\*\**

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### INTRODUCTION

A groundbreaking public health study funded by the U.S. Centers for Disease Control and Prevention (CDC) and the Kaiser Foundation found astoundingly high rates of childhood trauma, including experiences like abuse, neglect, parental substance abuse, mental illness, and incarceration.<sup>1</sup> Hundreds of follow-up studies<sup>2</sup> have revealed that multiple traumatic adverse childhood experiences (or “ACEs”) make it far more likely that a person will have poor mental health outcomes in adulthood, such as higher rates of depression, anxiety, suicide attempts, and substance abuse.<sup>3</sup> Interestingly, the original ACE Study examined a largely middle-class adult population living in San Diego,<sup>4</sup> but subsequent follow-up studies have examined the prevalence of ACEs and its impact on mental health in other populations, including among people involved in the juvenile and criminal justice systems.<sup>5</sup> Unsurprisingly, individuals entangled in those systems are more likely to have experienced higher numbers of these traumatic events,<sup>6</sup> despite a frequent lack of access to critical mental health treatment, including the treatment necessary to address past childhood trauma.<sup>7</sup> The ACEs framework for understanding health and mental health

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1. *See infra* note 23.

2. *See* discussion *infra* Section I.C.

3. *See* discussion *infra* Sections I.A and I.B.

4. *See infra* notes 23–25.

5. *See* discussion *infra* Section II.C.

6. *See* discussion *infra* Part II, Sections II.A, II.B, and II.D.

7. *See* discussion *infra* Section II.D.

outcomes resulting from childhood trauma has received a high level of attention recently following an in-depth, multi-part series on these issues by National Public Radio (NPR) and other media.<sup>8</sup>

Because the ACEs public health research shows us that events in childhood can cause “toxic stress”<sup>9</sup> and have a lasting impact on the mental health of a child well into adulthood, this framework provides us with an opportunity to consider how to more effectively intervene to stop the pathway from ACEs to juvenile justice system involvement and address the related health, mental health, developmental, and legal needs of children and their families. Before a child becomes an adult facing a mental health crisis or incarceration, attorneys, doctors, and other professionals can collaborate to disrupt that fate. This Article argues for a more upstream approach to address mental health using a medical-legal collaboration, based on the experiences of the authors, a law professor and medical school professor who work together to try to improve outcomes for children who have experienced trauma and their families.

In Part I, we begin by examining the groundbreaking ACE studies, exploring the toxic stress and health and mental health outcomes that are associated with high rates of ACEs in childhood.<sup>10</sup> Next, in Part II, we analyze the research revealing high rates of trauma and ACEs among populations involved in the juvenile justice system.<sup>11</sup> Finally, we conclude in Part III by arguing for a more upstream public health and justice approach.<sup>12</sup> We examine a particular problem in the city of Albuquerque, the largest urban area in New Mexico: children who have a particular ACE right from birth in the form of substance abuse by a household member.<sup>13</sup> These infants are born with prenatal drug exposure and many experience symptoms of withdrawal in their first weeks of life, often quickly followed by an accumulation of additional forms of early childhood trauma.<sup>14</sup> We discuss an approach through which the authors work to address those issues and disrupt the path from that childhood trauma to poor outcomes and juvenile justice system involvement. This approach engages attorneys with doctors and other health and developmental professionals to address ACEs among young children ages zero to three and their siblings, parents,

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8. See *infra* notes 139–44 and accompanying text.

9. See discussion *infra* Section I.B.

10. See discussion *infra* Part I.

11. See discussion *infra* Part II.

12. See discussion *infra* Part III.

13. See discussion *infra* Section III.B.

14. See discussion *infra* Section III.B.

and other caregivers.<sup>15</sup> We advocate for an early, holistic, multi-generational, multi-disciplinary public health and justice approach to address ACEs early and improve the trajectory for children who have experienced childhood trauma.<sup>16</sup>

### I. ADVERSE CHILDHOOD EXPERIENCES AND THEIR IMPACT

Loretta, a four-month-old infant, came to the University of New Mexico Health Sciences Family Options: Caring, Understanding Solutions, or FOCUS, Clinic for her first doctor's appointment following her discharge from the hospital at birth.<sup>17</sup> The FOCUS Program provides medical and home-based early intervention services to children who experienced prenatal drug exposure and their families.<sup>18</sup> Early intervention services are those developmental services provided under special education law to meet the needs of an infant or toddler with a disability in the areas of physical, cognitive, communication, social/emotional, and adaptive development, such as family training and counseling, occupational therapy, and psychological services.<sup>19</sup> The doctor's appointment had been scheduled with the FOCUS Clinic because baby Loretta and her mother Christi had urine drug screens completed at delivery that found the presence of methamphetamine and opiates in both of their systems. The discharging medical team at the hospital wanted Loretta to have follow-up with a team that had experience caring for infants and children with prenatal drug and alcohol exposure. Loretta's mother, Christi, grandmother, Rosa, and nine-year-old brother, Antonio, also crowded into the exam room. Rosa explained that Christi was recently released from jail for serious drug trafficking charges. Christi volunteered that she has "had a problem with methamphetamine and heroin" but after spending time in jail, plans to stay "clean." The father of Loretta and Antonio, Eddie, is not involved in the children's lives. He separated from Christi when

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15. See discussion *infra* Section III.B.

16. See discussion *infra* Conclusion.

17. The story of Loretta and her family is based on a composite of families served by the authors at the University of New Mexico FOCUS Program and Medical Legal Alliance, and the names and facts have been changed to protect the identity of the individuals.

18. FOCUS, UNIV. OF N.M. CTR. FOR DEV. & DISABILITY, <http://www.cdd.unm.edu/ecspd/FOCUS/> [<https://perma.cc/48EH-ZM7Z>].

19. 20 U.S.C. § 1432(4) (2012). The statute provides the eligibility criteria for early intervention programs, which are implemented by state. The New Mexico early intervention program is known as the Family Infant Toddler program, or FIT. N.M. CODE R. § 7.30.8.7(Z) (LexisNexis 2012).

Antonio was two years old, and briefly reunited with Christi the prior year, leading to the birth of Loretta.

While the doctor's appointment was for baby Loretta, Rosa and Christi wanted to talk about Antonio. They complained that Antonio "is nothing but trouble" and that he came with them to the doctor's office that day because he was home on his second out-of-school suspension since the school year began two months earlier. As Antonio dashed from one corner of the exam room to the other, jumping off and on the laps of the adults in the room, the medical team conducted a complete new patient visit, including review of the infant's hospital care, review of Christi's interrupted prenatal care due to her arrests, and a full physical exam of baby Loretta. The history and findings of potential developmental problems for Loretta supported referral for medically necessary early intervention services, a form of special education services provided by an early intervention specialist and other developmental specialists under the Individuals with Disabilities Education Act for young children ages zero to three,<sup>20</sup> coordinated with primary medical care in the FOCUS Clinic. The medical provider introduced an early intervention specialist to the family, and the family agreed to a home visit to start home-based early developmental intervention and family support.

At the subsequent FOCUS team meeting, the early intervention specialist discussed with the combined medical and early intervention team what she learned from the intake that the early intervention team completed with the family in Rosa's home. This intake involved a multi-disciplinary evaluation<sup>21</sup> regarding baby Loretta's developmental needs, as well as an Environmental Risk Assessment that evaluated factors in Loretta's life that put her at risk for developmental delays.<sup>22</sup> When the early intervention specialist went to the home, she met with Rosa alone because Christi had been arrested again. Rosa explained that Christi was addicted to methamphetamine and heroin starting at age 15. She had been in and out of jail and in and out of the children's lives. Antonio had been through a lot in his short life. His parents separated when he was two, and he had not seen his father since then. He had been emotionally

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20. 20 U.S.C. §§ 1431–44 (2012); N.M. CODE R. § 7.30.8.2 (LexisNexis 2012).

21. The multi-disciplinary evaluation determines what services will be incorporated into an Individual Family Service Plan (IFSP). N.M. CODE R. § 7.30.8.10(F). Depending on the child's needs, the services delivered can include, for example, developmental instruction, occupational therapy services, physical therapy services, speech and language therapy, and parent education. *Id.*

22. *Id.* § 7.30.8.10(G)(6)(d).

and physically neglected, bounced among strangers, and often left to care for himself even as a young child. Rosa mentioned that Antonio learned at five years old how to make himself a sandwich and use the microwave; otherwise, he would have starved. Until recently, he did not know how to take a bath or shower. Both Antonio and Loretta were now in Rosa's care. Rosa felt relieved that she could have home-based support services for the baby and that the FOCUS Program would schedule Antonio for medical care to better understand his behavioral and school issues. However, Rosa expressed concern about the fact that Antonio's school told her she could not be the one to deal with the paperwork related to his suspensions and his educational needs more broadly because she did not have legal custody of him. She was also worried about whether, given baby Loretta's complex medical needs, some doctors might also refuse to work with Rosa since she was not the baby's biological mother and had no legal custody documentation.

The framework of "adverse childhood experiences," or ACEs, can help us understand Antonio's and Loretta's situations—and their futures. In the late 1990s, researchers working with the CDC and the Kaiser Foundation asked approximately 10,000 adult patients with Kaiser insurance coverage to report on whether they had experienced in their childhood any of ten different forms of trauma, which the researchers characterized as ACEs.<sup>23</sup> What they learned was astounding. Even among the largely middle-class, college-educated population, most of whom were children in the Leave It to Beaver and Eisenhower Age of the 1950s, many had experienced not only individual traumatic childhood experiences, such as witnessing domestic violence or experiencing physical abuse, but multiple traumatic events, or ACEs.<sup>24</sup> Follow-up studies by these researchers and many others using the ACEs framework also showed that the more ACEs a person had experienced in childhood, the higher the likelihood that the person would suffer poor health and mental health outcomes, and even early death.<sup>25</sup>

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23. Vincent J. Felitti et al., *Relationship of Childhood Abuse and Household Dysfunction of Many of the Leading Causes of Death in Adults*, 14 AM. J. PREVENTIVE MED. 245, 248 (1998).

24. *Id.* at 249.

25. David W. Brown et al., *Adverse Childhood Experiences and the Risk of Premature Mortality*, 37 AM. J. PREVENTIVE MED. 389, 389 (2009); see also Felitti et al., *supra* note 23, at 245, 250.

### A. The ACEs Studies

A review of epidemiological research about the major non-genetic causes of death in the United States from 1977 to 1993 identified that, in 1990, major contributors to causes of death in the United States included tobacco, diet and activity patterns, alcohol, microbial agents, toxic agents, firearms, sexual behavior, motor vehicles, and illicit use of drugs.<sup>26</sup> Non-genetic causes of death were correlated with health behaviors that were risk factors for multiple types of chronic diseases and research began to generate information on lifestyle and behavioral risk factors for disease.<sup>27</sup> However, the possible causal determinants of health behavior risk factors and lifestyles remained incompletely explicated.<sup>28</sup>

Clues emerged from longitudinal studies of individuals who experienced childhood abuse and who later experienced a variety of negative health outcomes and behaviors, such as substance abuse, suicidal behaviors, and depression.<sup>29</sup> Expanding on the precedent research studies, Vincent Felitti and Robert Anda of the University of Pennsylvania initiated a large-scale epidemiological study that assessed the impact of various forms of childhood abuse and household dysfunction.<sup>30</sup> They examined how exposure to these adverse traumatic events affected a wide variety of health behaviors and outcomes from adolescence to adulthood, which came to be known as the groundbreaking ACE Study.<sup>31</sup>

The epidemiologic public health study, funded by the U.S. Department of Health & Human Services, the U.S. Centers for Disease Control and Prevention, and the Kaiser Permanente Garfield Memorial Fund, began with an examination of data collected from members of Kaiser Health Plan in San Diego County.<sup>32</sup> The researchers recruited Kaiser Health Plan members over an eight-month period in 1995 to 1996 attending the Health Appraisal Clinic

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26. J. Michael McGinnis & William H. Foege, *Actual Causes of Death in the United States*, 270 J. AM. MED. ASS'N 2207, 2207 (1993).

27. *Id.* at 2207, 2211.

28. See Shanta R. Dube et al., *The Impact of Adverse Childhood Experiences on Health Problems: Evidence from Four Birth Cohorts Dating Back to 1900*, 37 PREVENTIVE MED. 268, 268, 275 (2003).

29. See, e.g., George R. Brown & Bradley Anderson, *Psychiatric Morbidity in Adult Inpatients with Childhood Histories of Sexual and Physical Abuse*, 148 AM. J. PSYCHIATRY 55 (1991).

30. Felitti et al., *supra* note 23, at 245.

31. *Id.*

32. *Id.* at 246.



open to all Kaiser members.<sup>33</sup> Those who participated in the study provided complete medical histories and received medical evaluations.<sup>34</sup> Within one week after their clinic visit, the participants received a mailed ACE Study questionnaire that included questions about childhood abuse and exposure to forms of household dysfunction while growing up.<sup>35</sup> After second mailings of the questionnaire to members who did not respond to the first mailing, the researchers achieved a response rate for the survey of 70.5% (9508 of the 13,494 initial participants provided responses).<sup>36</sup>

The research team abstracted from medical records to collect health data, including medical history, laboratory results, and physical exam findings. The clinical results from the medical evaluations were compared to the responses from the survey asking about ACEs.<sup>37</sup> By the end of the study, the researchers analyzed two waves of survey data, resulting in 9508 validated responses with an almost 70% response rate to the mailed surveys.<sup>38</sup> Potential biases in reporting ACEs, such as childhood sexual abuse, were excluded as reasons for over-reporting or under-reporting health risk behaviors or health conditions.<sup>39</sup>

Results from the data collected in both waves described the demographics of Kaiser Health Plan members seen at the Health Appraisal Clinic in detail.<sup>40</sup> Specifically, 80% of the respondents were Caucasian.<sup>41</sup> The subjects tended to be older than the general population, with a mean age of 56,<sup>42</sup> and had higher education levels than the general population, with 43.4% having college degrees, 31.5%

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33. *Id.*

34. *Id.*

35. *Id.*

36. *Id.*

37. *Id.*

38. *Id.* at 246–47. Respondents were excluded for reasons of missing data regarding racial or educational background or because their data may have become duplicated in the collection processes. *Id.* at 249.

39. *See id.* at 252. *See generally* Valerie J. Edwards et al., *Bias Assessment for Child Abuse Survey: Factors Affecting Probability of Response to a Survey About Childhood Abuse*, 25 CHILD ABUSE & NEGLECT 307 (2001).

40. Felitti et al., *supra* note 23, at 246 (stating that a review of membership and utilization records among Kaiser members in San Diego continuously enrolled between 1992 and 1995 showed that 81% of those twenty-five years and older had been evaluated in the Health Appraisal Clinic).

41. *Id.* at 251 tbl.3 (reporting that the demographic characteristics of first wave of 8056 subjects among the insured study group in the Kaiser Health Plan were 79.8% White, 6.3% Asian, 5.4% Hispanic, 4.8% African-American, and 3.7% Other).

42. *Id.* (explaining that by age, 6% were 19–34, 25.6% 35–49, 32% 50–64, and 32.4% older than 65).

having attended some college, 19.2% having a high school diploma, and only 6% not completing high school.<sup>43</sup>

The surveys returned found astoundingly high rates of childhood trauma, even among this largely middle-class, educated group.<sup>44</sup> The first category of ACEs in the study included three types of trauma inflicted directly on the child:

- physical abuse (28.3%);
- sexual abuse (20.7%); and
- psychological abuse and neglect (10.6%).<sup>45</sup>

The participants/respondents also had high rates in the second category of ACEs, which involved five types of trauma experienced in the participants' childhood homes:

- parental or caregiver substance abuse (26.9%);
- mental illness of a parent, such as depression and suicide attempts (19.4%);
- violence directed against their mother or stepmother (12.7%);
- incarceration of adult family members who lived with them (4.7%); and
- parents ever separated or divorced (23.3%).<sup>46</sup>

Each of these eight types of trauma counted as one ACE, and the researchers found that nearly 64% of respondents reported experiencing at least one ACE.<sup>47</sup> Among the members studied, 26% had one ACE, 15.9% had two ACEs, 9.5% had three ACEs, and 12.5% had experienced four or more ACEs in childhood.<sup>48</sup> A person experiencing any type of ACE in childhood had a 65% to 93% chance

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43. *Id.*

44. *Id.* at 249.

45. Dube et al., *supra* note 28, at 271 tbl.1.

46. *Id.* (noting that respondents had a slightly greater affirmative answer than nonrespondents (6.1% vs. 5.4%, respectively) to the question about childhood sexual abuse).

47. *Id.* at 272.

48. *Id.* at 271 tbl.1, 272 (finding no substantial difference in prevalence of ACEs between the two waves of respondents with the mean ACE score at 1.5 for both waves).

of experiencing at least one additional ACE in their lifetime and a 40% to 74% chance of experiencing two additional ACEs.<sup>49</sup>

The authors counted each type of the eight ACEs as a value of one.<sup>50</sup> The questions on the survey assessed frequency of psychological abuse and physical abuse by using the qualifiers “often or very often” and frequency of violence directed against the mother by the qualifiers “sometimes, often or very often” to qualify the response as sufficiently traumatic to count as an ACE.<sup>51</sup> The questions on the survey did not assess for the severity of any specific ACE, for example not distinguishing the gravity or quantity of physical injuries suffered.<sup>52</sup> For other categories of ACEs, the questions determined whether the event had occurred without quantifying, for example, whether a family member or multiple family members had been incarcerated.<sup>53</sup> The researchers calculated the quantity of childhood exposure as the sum of the categories with the possible number of exposures ranging from zero (unexposed) to eight (exposed to all categories).<sup>54</sup>

The research team then considered ten risk factors that contributed to the leading causes of morbidity and mortality in the United States.<sup>55</sup> The risk factors included: smoking; severe obesity; physical inactivity; depressed mood; suicide attempts; alcoholism; drug abuse; parental drug abuse; a high lifetime number of sexual partners (more than fifty); and a history of having a sexually transmitted disease.<sup>56</sup> Each additional ACE that a person experienced raised the relative risk of that person demonstrating risk behavior that leads to morbidity or mortality.<sup>57</sup> In other words, the more ACEs a person experienced in childhood, the greater their risk of poor health or mental health outcomes in adulthood. For example, an individual who had experienced one ACE as a child had a 50% greater risk for experiencing two or more weeks of depression at some point in their lives compared to an individual who had experienced no ACE.<sup>58</sup> For

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49. Felitti et al., *supra* note 23, at 249.

50. *Id.*

51. *Id.* at 248 tbl.1.

52. *See id.*

53. *Id.*

54. *See* Dube et al., *supra* note 28, at 271–72.

55. Felitti et al., *supra* note 23, at 248. Morbidity conceptualizes a condition of chronic illness that reduces the quality of life or ability to function at the level a person desires. *See* McGinnis & Foege, *supra* note 26, at 2011.

56. Felitti et al., *supra* note 23, at 248, 252 tbl.4.

57. *Id.* at 253 tbl.6.

58. *Id.* at 252 tbl.4.

an individual with four or more ACEs, that person was four and a half times more likely to experience prolonged depression compared to a person with no ACEs.<sup>59</sup> For each health risk behavior, adding one additional ACE resulted in an incrementally greater relative risk compared to an individual with one fewer ACE.<sup>60</sup> For example, an individual with two ACEs had more than twice the risk of an individual with one ACE of ever attempting suicide.<sup>61</sup> Among the 3861 individuals in the group with zero ACEs, only 1% had four or more health risk behaviors, while 56% of them had no risk behaviors.<sup>62</sup> By comparison, individuals with four or more ACEs had a seven-fold greater rate of also having four or more health risk behaviors, such as smoking, depressed mood, or alcoholism.<sup>63</sup>

*Relative Risk of Health Behaviors Associated with Early Death*<sup>64</sup>

ACE score	Alcoholism	Intravenous Drug Abuse	Attempted Suicide
0	1.0*	1.0*	1.0*
1	1.9	1.0	1.8
2	2.1	2.5	4.0
3	2.7	3.5	4.0
4	4.5	3.8	7.2
5	5.1	9.2	16.8

\* 0 adverse events set as standard risk

Increasing numbers of ACEs had the same relationship to health problems associated with morbidity and mortality as health risk behaviors. Compared to an individual with no ACEs, a person with four or more ACEs had more than seven times greater risk of being an alcoholic, almost five times greater risk of ever using illicit drugs and more than ten times greater risk of intravenous drug use.<sup>65</sup> Those with four or more ACEs had more than three times greater likelihood of having fifty or more sexual partners, and a two-and-a-half times

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59. *Id.*

60. *Id.*

61. *Id.*

62. *Id.* at 253 tbl.6.

63. *Id.*

64. *Id.* at 252 tbl.4, 253 tbl.5 (adapted by S. Bachofer, MD).

65. *Id.* at 253 tbl.5.

greater risk of ever having a sexually transmitted infection.<sup>66</sup> For many types of life threatening or terminal diagnoses, compared to individuals with zero ACEs, those with four or more ACEs had two times greater rate of ischemic heart disease, two times greater rate of any cancer, and four times greater rate of chronic obstructive lung disease.<sup>67</sup>

In summary, the ACE Study was the first research to link patients' poor health and related high-risk health behaviors with patients' recall of their severe adverse childhood experiences before age eighteen. They found a "dose-response relationship" between the number of childhood exposures and the following disease conditions: ischemic heart disease; cancer; chronic bronchitis or emphysema; history of hepatitis or jaundice; skeletal fractures; and poor self-rated health."<sup>68</sup> These health conditions represented many of the major causes of disability and death in the largely Caucasian, middle class, middle aged, and well-educated patients covered by the Kaiser insurance plan. The authors hypothesized that the mechanisms linking the existence of ACEs among health plan members and their disease conditions came from:

[B]ehaviors such as smoking, alcohol or drug abuse, overeating, or sexual behaviors that may be consciously or unconsciously used because they have immediate pharmacological or psychological benefit as coping devices in the face of the stress of abuse, domestic violence, or other forms of family and household dysfunction. High levels of exposure to adverse childhood experiences would expectedly produce anxiety, anger, and depression in children. To the degree that behaviors such as smoking, alcohol, or drug use are found to be effective as coping devices, they would tend to be used chronically.<sup>69</sup>

Specifically focusing on mental health outcomes related to ACEs, Valerie J. Edwards and colleagues in 2003 conducted further analysis of the first wave ACE Study data.<sup>70</sup> The analysis of the relationship between childhood maltreatment and mental health was based on data from 7505 respondents (85.6%) for whom a completed Medical Outcomes Study thirty-six item Short-Form Health Survey was

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66. *Id.*

67. *Id.* at 254 tbl.7.

68. *Id.* at 250.

69. *Id.* at 253.

70. See Valerie J. Edwards et al., *Relationship Between Multiple Forms of Childhood Maltreatment and Adult Mental Health in Community Respondents: Results from the Adverse Childhood Experiences Study*, 160 AM. J. PSYCHIATRY 1453 (2003) [hereinafter Edwards et al., *ACE Study*].

available.<sup>71</sup> Females made up about 54% of the respondents.<sup>72</sup> Over 75% of the respondents had some college education.<sup>73</sup> The respondents differed from non-respondents in that they were more likely to be younger, more likely to be women, “and less likely to be members of an ethnic minority group.”<sup>74</sup>

The research group found striking gender differences in the specific ACE results.<sup>75</sup> In general, males experienced less emotional abuse and lower intensity levels of abuse.<sup>76</sup> While 65.2% of all females lived in homes where there was no emotional abuse, 77% of all males lived in homes without emotional abuse.<sup>77</sup> Twice as many females than males lived in homes where children experienced high intensity of abuse, meaning the individual experienced physical abuse, sexual abuse, and witnessed maternal battering.<sup>78</sup> The intensity of emotional abuse effected mental health at each level of the three ACEs of physical abuse, sexual abuse, and witnessing maternal battering.<sup>79</sup> In general, although mental health scores increased with age for both genders, males had higher mental health scores than females.<sup>80</sup> At each level of accumulated ACEs, comparing an individual with low intensity of emotional abuse in the home with an individual who had high intensity abuse, the individual from a home with high intensity abuse had significantly lower mental health scores.<sup>81</sup>

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71. *Id.* at 1455.

72. *Id.* “The average age was 55 years (range=19–97 years). Almost three-fourths (73.7%) of the respondents were white.” *Id.* Females had a statistically greater likelihood than males of experiencing two of the three separate maltreatment classifications of childhood sexual abuse, physical abuse, and witnessing of maternal battering, with males suffering physical abuse more than females. *See id.* at 1456. Compared to males, females experienced multiple ACEs, such as physical and sexual abuse and witnessing maternal battering along with physical and sexual abuse, statistically more than males. *Id.* Females also lived in homes with greater intensity of emotional abuse from responses to the Childhood Trauma Questionnaire compared to males. *Id.*

73. *Id.* at 1455.

74. *Id.*

75. *Id.* at 1456.

76. *Id.* at 1457 tbl.4 (showing that females have higher rates of more intense emotional abuse at every level).

77. *Id.*

78. *Id.* (detailing how females in homes compared to males experienced low intensity of abuse in 18% to 13.9%, and medium intensity of abuse in 7.5% to 4.8%). High intensity abuse occurred in the sixth group that in the cluster analysis experienced physical abuse, sexual abuse, and witnessed maternal battering. *Id.* at 1455, 1456 tbl.3.

79. *Id.* at 1456, 1458.

80. *Id.* at 1456.

81. *Id.* at 1457 tbl.4.

The researchers found that for each of the three types of ACE studied, physical abuse, sexual abuse, and witnessing maternal battering, females had greater prevalence of low mental health scores, indicating decreased mental wellness.<sup>82</sup> The particular combination of witnessing maternal battering and experiencing physical and sexual abuse had the greatest effect on the mental health of females, with 20% having low mental health scores compared to 16.4% for males exposed to the same combination.<sup>83</sup> The population derived study data lent support for increasing seriousness of mental health conditions with greater numbers of ACEs. It suggested that homes with higher intensity emotional abuse added to the likelihood of serious mental illness.<sup>84</sup>

The relationship between ACEs and mental health problems also recurs in research from other populations, which can be seen in the findings described in a 2015 publication reporting on a longitudinal study of high school seniors.<sup>85</sup> The research group conducted a two-wave, prospective design study taking a systematic probability sample of high school seniors (N = 1093) from communities of diverse socioeconomic status.<sup>86</sup> They were interviewed in person in 1998 and over the telephone two years later.<sup>87</sup> The team obtained information regarding ACEs and found most ACEs were strongly associated with the three outcomes studied: depressive symptoms, drug abuse, and antisocial behaviors.<sup>88</sup> The cumulative effect of ACEs was significant and of similar magnitude for all three outcomes.<sup>89</sup> Females experienced sex abuse and sexual assault ten times more than males and experienced severe neglect two times greater than males.<sup>90</sup> Males experienced being threatened or held captive four times more than females.<sup>91</sup> The researchers did not find significant gender differences in the effects of single ACEs on depression and drug use.<sup>92</sup> They did

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82. *Id.* at 1456, 1458.

83. *Id.* at 1458 tbl.5.

84. *See id.*

85. *See* Elizabeth A. Schilling et al., *Adverse Childhood Experiences and Mental Health in Young Adults: A Longitudinal Survey*, 7 *BIO MED CENT.: BMC PUB. HEALTH* 30 (2007), <http://bmcpublikealth.biomedcentral.com/articles/10.1186/1471-2458-7-30> [https://perma.cc/58S5-92PE].

86. *Id.*

87. *Id.*

88. *Id.*

89. *Id.*

90. *Id.*

91. *Id.*

92. *Id.*

find that males who experienced ACEs were more likely to engage in antisocial behavior earlier in young adulthood than females who experienced similar ACEs.<sup>93</sup> They also found greater negative impact on mental health behaviors when males survived sexual abuse and sexual assault.<sup>94</sup> Where racial or ethnic differences existed, the adverse mental health impact of ACEs on Whites was consistently greater than on African-American or Hispanic youth.<sup>95</sup> These findings from a cohort of high school seniors support the persistence of effects from ACEs on health behaviors and risk behaviors that affect health and mental health in young adulthood.<sup>96</sup> These effects likely occur in disproportionately greater rates among youth involved in the U.S. criminal justice system, as the cumulative stress of these experiences leads to these concerning risk behaviors.

When Antonio's grandmother and mother brought him to the doctor's appointment for his baby sister, Loretta, they complained that Antonio caused a lot of problems at home and at school. The medical team made an appointment for Antonio to have his own doctor's appointment and assessed his ACEs level. At age nine, he had an ACE for his mother's substance abuse, another for her incarceration, one for separation of his parents, and one for experiencing physical and emotional neglect. (The original ACE Study combined physical and emotional neglect into a category of "psychological abuse.") Antonio had to deal with four ACEs on his own before the age of nine. His baby sister, Loretta, was born with two ACEs—substance abuse of her mother and separation of her parents—and shortly thereafter experienced a third ACE, incarceration of her mother. As illustrated in the table above looking at all study subjects in the ACE Study, having four or more ACEs raises Antonio's risk of lifelong alcoholism four to five times over that of another child without ACEs.<sup>97</sup> He has a four to nine times greater risk of injection drug use and a seven to seventeen times greater risk of attempting suicide compared to another child without ACEs.<sup>98</sup> With her three ACEs, Loretta has two and a half to four times greater risks of alcoholism, injection drug use, and suicide attempts in her

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93. *Id.*

94. *Id.*

95. *Id.*

96. *Id.*

97. See Felitti et al., *supra* note 23, at 252 tbl.4, 253 tbl.5 (adapted by S. Bachofer, MD); *supra* table accompanying note 64.

98. *See id.*



later life.<sup>99</sup> She also has higher gender specific risks for living in a home with high intensity abuse leading to poorer mental health outcomes.<sup>100</sup>

Armed with the knowledge that the experience of multiple ACEs increases the risk of risk behaviors—and poor health, mental health, and likely legal outcomes—for both children, the team sought to better understand the impact of these forms of trauma on the children and how they could best intervene to improve outcomes for both children. In practice, the understanding of the meaning of ACE and the role of ACEs in creating toxic stress in the lives of children create an urgency to prevent further ACEs in Loretta’s and Antonio’s lives and to treat the emotional and physical manifestations of toxic stress.

### B. The Impact of ACEs on Children: Toxic Stress

The concept of toxic stress helps to explain the impact of ACEs on children like Antonio and Loretta and the connection between trauma and resulting health risk behaviors and mental illness that are common outcomes for people who experienced ACEs in childhood.<sup>101</sup> The CDC describes the effect of trauma through this lens, explaining that “[p]rolonged maltreatment causes extreme or ‘toxic’ stress that can disrupt early brain development. Extreme stress can harm the development of the nervous and immune systems, leaving children vulnerable to chronic diseases later in life. Maltreatment, for example, has been associated with heart, lung, and liver disease in adulthood.”<sup>102</sup> The American Academy of Pediatrics defines toxic stress as the excessive or prolonged activation of the physiologic stress response systems in the absence of the buffering protection afforded by stable, responsive relationships.<sup>103</sup> Toxic stress early in life plays a critical role by disrupting brain circuitry and other important regulatory systems in ways that continue to influence

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99. *See id.*

100. *See* Edwards et al., *ACE Study*, *supra* note 70, at 1458 tbl.5.

101. *See* CTRS. FOR DISEASE CONTROL & PREVENTION, FACTS: PREVENTING CHILD MALTREATMENT (2008), [http://www.cdc.gov/injury/pdfs/Child\\_Maltreatment\\_National\\_FactSheet-a.pdf](http://www.cdc.gov/injury/pdfs/Child_Maltreatment_National_FactSheet-a.pdf) [<https://perma.cc/SD82-S3MR>].

102. *Id.*

103. Nat’l Sci. Council on the Developing Child, *Excessive Stress Disrupts the Architecture of the Developing Brain* 1 (Harvard Univ. Ctr. on the Developing Child, Working Paper No. 3, 2014), [http://developingchild.harvard.edu/wp-content/uploads/2005/05/Stress\\_Disrupts\\_Architecture\\_Developing\\_Brain-1.pdf](http://developingchild.harvard.edu/wp-content/uploads/2005/05/Stress_Disrupts_Architecture_Developing_Brain-1.pdf) [<https://perma.cc/4W7B-VS29>].

physiology, behavior, and health decades later.<sup>104</sup> The National Child Trauma Stress Network notes that children who experience traumatic events have subjective responses to moments of trauma that affect their physiology, feelings, and thoughts.<sup>105</sup> A child's response to trauma has multiple dimensions influenced by the child's personal characteristics, life experiences, and current circumstances.<sup>106</sup>

Children like Antonio, with trauma exposure, can progress to post-traumatic stress and grief reactions over time, which can then develop into psychiatric conditions such as post-traumatic stress disorder, depression, and separation anxiety, especially if not ameliorated by sensitive and aware caregivers or supportive service providers.<sup>107</sup> In addition, the experience of post-traumatic stress and grief may disrupt multiple domains of child development, including attachment relationships, peer relationships, and emotional regulation even occurring in infants Loretta's age.<sup>108</sup> Disruptions in these domains can reduce a child's level of functioning at home, at school, and in the community.<sup>109</sup> Children's post-traumatic stress reactions can also exacerbate preexisting mental health problems, including depression and anxiety.<sup>110</sup> Although children who have experienced toxic stress may ultimately be placed into a physically safe environment, their perception of the need for self-protection and their related risk-taking behaviors may not be restored in predictable courses.<sup>111</sup> For example, Antonio may demonstrate heightened states of vigilance or intense physiologic reactions to situations or stimuli that remind him of past threatening events, become focused on a sense of impending danger, and have a tendency to react violently or impulsively to stimuli that may represent a threat to his safety.<sup>112</sup> These reactions make Antonio

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104. See Jack P. Shonkoff, *A Promising Opportunity for Developmental and Behavioral Pediatrics at the Interface of Neuroscience, Psychology, and Social Policy: Remarks on Receiving the 2005 C. Anderson Aldrich Award*, 118 PEDIATRICS 2187, 2189 (2006).

105. *The 12 Core Concepts: Concepts for Understanding Traumatic Stress Responses in Children and Families*, NAT'L CHILD TRAUMATIC STRESS NETWORK (2012), <http://www.nctsn.org/resources/audiences/parents-caregivers/what-is-cts/12-core-concepts> [<https://perma.cc/D9KQ-3RH4>].

106. *Id.*

107. *Id.*

108. *Id.*

109. *Id.*

110. *Id.*

111. *See id.*

112. See Bessel van der Kolk, *The Neurobiology of Childhood Trauma and Abuse*, 12 CHILD & ADOLESCENT PSYCHIATRIC CLINICS OF N. AM. 293, 299 (2003).

more likely to get into fights with peers, seem defiant towards adults, and at times appear “checked out” in school.

Moreover, trauma experiences and the disruptions caused in a child’s life may result in temporary or permanent effects on his or her brain.<sup>113</sup> These effects may lead to developmental delays or regression, self-regulation problems, difficult social relationships within and outside of the home, and learning problems.<sup>114</sup> A child’s reaction to traumatic stress, the availability of support managing the resulting grief and stress, and a child’s individual characteristics of vulnerability or resilience are key factors that affect a child’s overall functioning.<sup>115</sup> In response to post-traumatic stress, children may manifest behaviors or risk-taking behaviors that have implications for long term health,<sup>116</sup> and can lead to disciplinary problems at school or entry into the juvenile justice system, risks that Antonio’s healthcare team was concerned about for him.

Building on the groundbreaking ACE Study first published seven years earlier, Dr. Jack Shonkoff identified specific causes of post-traumatic stress and observed that “adverse experiences associated with poverty, abuse, neglect, racial/ethnic discrimination, and exposure to family violence, among others, can lead to a lifetime of illness and diminished capabilities.”<sup>117</sup> He referred to the National Scientific Council on the Developing Child’s simple taxonomy for addressing the experience of adversity in young children based on three categories: positive; tolerable; and toxic stress.<sup>118</sup> The Council explained positive stress as the type of stress that creates appropriate developmental challenges to the individual as a normal part of healthy development of a child.<sup>119</sup> Positive stress results in brief heart rate acceleration and temporary increase in stress hormone response.<sup>120</sup> Resolution of the reaction to stress results in accomplishment and personal growth.<sup>121</sup>

Tolerable stress is experienced by individuals at a higher level in the face of more severe and stressful events of longer duration, such as surviving a natural disaster or the death of a loved one. Individuals

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113. *Id.* at 309–10.

114. *Id.* at 296.

115. *Id.*

116. *See id.*

117. Shonkoff, *supra* note 104, at 2189.

118. Nat’l Sci. Council on the Developing Child, *supra* note 103, at 1–2.

119. *Id.* at 1.

120. *Id.*

121. *Id.*

who experience this type of stress have longer periods of stress hormone production and other physiological changes.<sup>122</sup> If the activation of stress responses is time-limited and the individual receives appropriate care and support, the brain and other body systems disrupted by prolonged stress can largely recover from potentially damaging long term effects and restore equilibrium.<sup>123</sup> Without appropriate support, some forms of tolerable stress become chronic and repeatedly activate stress systems more closely resembling “toxic stress.”<sup>124</sup>

The Council conceptualized “toxic stress” as “strong, frequent, and/or prolonged activation of the body’s stress-management systems” in response to repeated intense adverse experiences.<sup>125</sup> Among the activators of prolonged activation that often overwhelm children’s abilities to cope are “extreme poverty, recurrent physical and/or emotional abuse, chronic neglect, severe maternal depression, parental substance abuse, and family violence,” some of which are forms of trauma included in the ACEs framework.<sup>126</sup> As the research of the National Scientific Council found, toxic stress disrupts the developing brain architecture of children.<sup>127</sup> This disruption alters stress-management systems that establish relatively lower thresholds for responsiveness that persist throughout life.<sup>128</sup> When a child has a toxic stress response continually or has stress activated by multiple sources, like Antonio, this stress can have a cumulative toll on the child’s physical and mental health over the lifetime. The more adverse experiences in childhood, the greater the likelihood of developmental delays and later health problems, including heart disease, diabetes, substance abuse, and depression. This altered responsiveness means “high levels of negativity, poor impulse control, and personality disorders, as well as low levels of enthusiasm, confidence, and assertiveness” that lead to increasing the risk for attention deficient, emotional, cognitive, and behavioral disorders resulting in reduced abilities to regulate and learn, which were immediate concerns for Antonio and long-term concerns for baby

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122. See Shonkoff, *supra* note 104, at 2189.

123. *Id.*

124. *Id.*

125. *Id.*

126. *Id.*

127. *Id.*

128. *Id.*

Loretta, as identified by their healthcare team.<sup>129</sup> Prolonged disruption increases the risk of stress-related physical and mental illness well into the adult years.<sup>130</sup>

Antonio's healthcare team knew that he had experienced at least four ACEs by the age of nine and was struggling with the effects/impact of toxic stress. His disrupted stress-management system caused him to feel constantly under threat, made him feel he could not get enough attention, and led to his dysregulated aggressiveness towards his mother, the new baby, and the school environment. Dysregulation is the pervasive dysfunction in how Antonio regulated his emotional system as a result of the toxic stress he had experienced, exacerbating both positive and negative emotions when he felt vulnerable.<sup>131</sup> As she became more comfortable with the healthcare team at FOCUS, Antonio's grandmother, Rosa, reported that, in the past weeks of school since he had come to live with her, he had fights with other kids who said things about his mother, received disciplinary corrections, brought home a failing report card, and then received another three-day suspension from school for another playground fight. His classroom teacher and the counselor at school had presented the possibility of Antonio having attention deficit disorder or other behavioral health problems. They urged his mother to see a doctor and made a referral to a community behavioral health agency; however, his mother did not follow through with the plans. His grandmother, becoming aware of Antonio's school problems, did not know where to go to find help. Within the framework of ACEs, Antonio's behaviors and school problems fit with the types of outcomes and risk behaviors that correlate with high numbers of ACEs: developmental delays; behavioral regression in response to moving back with his mother and his new infant sibling; self-regulation problems; difficult social relationships within and outside of the home; and learning problems. The FOCUS healthcare team was also concerned that Loretta could also experience toxic stress and resulting mental health and behavioral problems, like her brother, as she had already experienced three ACEs in the first few months of her life.

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129. HARV. UNIV. CTR. ON THE DEVELOPING CHILD, IN BRIEF: THE SCIENCE OF NEGLECT 2 (2015), <http://developingchild.harvard.edu/resources/inbrief-the-science-of-neglect/> [<https://perma.cc/QR2-AHMB>].

130. *Id.*

131. See Thomas R. Lynch et al., *Dialectical Behavior Therapy for Borderline Personality Disorder*, 3 ANN. REV. CLINICAL PSYCHOL. 181, 183 (2007).

Research also indicates that supportive, responsive relationships<sup>132</sup> with caring adults as early in life as possible can prevent or reverse the damaging effects of toxic stress response.<sup>133</sup> As a result, the family's healthcare team identified as a priority the need for both Loretta and Antonio to develop supportive, responsive, and stable relationships with one or more caring adults in their lives. They identified the need for legal services to help Rosa establish a legal custodial relationship with the children, at least until their mother, Christi, could get back on her feet. The team's approach is discussed below in Part III.

### C. The Significance of the ACE Study

The groundbreaking epidemiological research presented in the ACE Study has stimulated a large body of literature of more than 450 follow-up studies and publications.<sup>134</sup> The website ACEs Connections serves as:

[A] social network that accelerates the global movement toward recognizing the impact of adverse childhood experiences in shaping adult behavior and health, and reforming all communities and institutions – from schools to prisons to hospitals and churches – to help heal and develop resilience rather than to continue to traumatize already traumatized people.<sup>135</sup>

Communication about the ACEs framework has become part of the Violence Prevention Division of the National Center for Injury Prevention and Control at the CDC,<sup>136</sup> a division dedicated to

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132. Andrew S. Garner & Jack P. Shonkoff, Am. Acad. of Pediatrics, *Policy Statement: Early Childhood Adversity, Toxic Stress, and the Role of the Pediatrician: Translating Developmental Science into Lifelong Health*, 129 PEDIATRICS e224, e225 (2012).

133. Shonkoff, *supra* note 104, at 2189.

134. A search in PubMed.gov, the website for the U.S. National Library of Medicine, on April 1, 2016 for “adverse childhood experiences” in “all fields” retrieved 1015 articles. U.S. NAT'L LIBR. MED, PUBMED, <https://www.ncbi.nlm.nih.gov/pubmed/advanced> [<https://perma.cc/XY5P-TP3M>]. A more narrow search for “adverse childhood experiences” in the title field retrieved 268 articles. *Id.* [<https://perma.cc/VP9Y-3LU9>].

135. *About this Site*, ACES CONNECTIONS, <http://www.acesconnection.com/pages/about> [<https://perma.cc/VP88-J4XS>]; *see also* ACES TOO HIGH NEWS, <http://acestoohigh.com/aces-too-high-network/> [<https://perma.cc/5Q99-5QM7>]. A companion site, ACESTooHigh.com, provides news. *Id.*

136. *See, e.g., The ACE Pyramid*, CTRS. FOR DISEASE CONTROL & PREVENTION, <http://www.cdc.gov/violenceprevention/acesstudy/pyramid.html> [<https://perma.cc/MSG5-3CVP>].

primary prevention described as stopping violence before it begins.<sup>137</sup> The reports of the ACE Study reside in the CDC's Section on Child Maltreatment Prevention.<sup>138</sup>

The popular press has embraced the ACE Study and related publications with a recent program on the NPR segment "What Shapes Health" titled "Can Family Secrets Make You Sick?"<sup>139</sup> and the companion piece "Take The ACE Quiz—And Learn What It Does And Doesn't Mean."<sup>140</sup> The programs reported on a survey conducted by NPR, the Robert Wood Johnson Foundation, and the Harvard T.H. Chan School of Public Health that in part evaluated specific adverse childhood experiences, following up on some of the research originally conducted by Robert Anda and Vincent Felitti in the 1990s.<sup>141</sup> The study found almost four in ten Americans reported that childhood experiences have "a harmful effect on their health later in life."<sup>142</sup> Respondents to the survey believed that events that occur in a child's life can affect later adult health.<sup>143</sup> The five childhood experiences cited most often by Americans (from a list of eleven) that had a harmful effect on their later health were the death or serious illness of a family member or close friend (18%), having a serious physical injury or accident (13%), growing up in a low-income household (11%), parents getting divorced, separated, or breaking up (11%), and a parent or other close family member losing a job

137. See generally CTRS. FOR DISEASE CONTROL & PREVENTION, INJURY PREVENTION & CONTROL: DIVISION OF VIOLENCE PREVENTION (2015) <http://www.cdc.gov/violenceprevention/> [<https://perma.cc/32QK-HEGX>].

138. See generally CTRS. FOR DISEASE CONTROL & PREVENTION, CHILDHOOD MALTREATMENT PREVENTION (2016), <http://www.cdc.gov/violenceprevention/childmaltreatment/index.html> [<https://perma.cc/6L3S-6RTK>].

139. See generally Laura Starcheski, *Can Family Secrets Make You Sick?*, NAT'L PUB. RADIO: WHAT SHAPES HEALTH (2015), <http://www.npr.org/sections/health-shots/2015/03/02/377569413/can-family-secrets-make-you-sick> [<https://perma.cc/X4BD-WH8D>].

140. See generally Laura Starcheski, *Take The ACE Quiz—And Learn What It Does And Doesn't Mean*, NAT'L PUB. RADIO: WHAT SHAPES HEALTH (2015), <http://www.npr.org/sections/health-shots/2015/03/02/387007941/take-the-ace-quiz-and-learn-what-it-does-and-doesnt-mean> [<https://perma.cc/K4BM-8HWR>].

141. NAT'L PUB. RADIO, ROBERT WOOD JOHNSON FOUND. & HARVARD T.H. CHAN SCH. OF PUB. HEALTH, WHAT SHAPES HEALTH 1 (2015), [http://www.rwjf.org/content/dam/farm/reports/surveys\\_and\\_polls/2015/rwjf418340](http://www.rwjf.org/content/dam/farm/reports/surveys_and_polls/2015/rwjf418340) [<https://perma.cc/8K4U-5FKK>].

142. *Id.* at 6.

143. *Id.* at 20–21 (stating that respondents rated the following as extremely or very important in affecting adult health: 89% "[b]eing abused or neglected in childhood," 83% "[e]ating a poor diet in childhood," 80% "[l]iving in a polluted environment in childhood," 66% "[l]iving in poverty in childhood," and 62% "[n]ot graduating from high school").

(10%).<sup>144</sup> Foundations such as the Robert Wood Johnson Foundation reference the ACE Study in reports like “Adverse Childhood Experiences: Early Life Events That Can Damage Our Adult Health,” with links to additional resources.<sup>145</sup>

Increasing numbers of pediatric practices have started acknowledging the potential seriousness of ACEs. Routinely, the parents of four-month-olds coming to a well-baby checkup at the Children’s Clinic in Portland, Oregon, seeing Drs. Teri Pettersen, R.J. Gillespie, and their fifteen other partners, are asked about their adverse childhood experiences growing up.<sup>146</sup> At the Bayview Child Health Center in San Francisco, Dr. Nadine Burke Harris calculates an ACE score for children seen in her primary pediatric practice, as part of a systematic inquiry into what has happened in the lives of children seen by her. The doctor and her staff have developed a screening tool, “a survey that asks parents how many adverse experiences their child has gone through. Parents do not have to identify which experiences” the child has had, an innovation in constructing an ACE survey to encourage honest responses.<sup>147</sup> However, the Bayview clinic teams understand that the more boxes parents check, the higher a child’s score.<sup>148</sup> In rural northern Michigan, Dr. Tina Marie Hahn, who describes personally experiencing more childhood trauma than most people, believes in the power of screening for ACEs.<sup>149</sup> She has been using the ACE survey in her practice for seven years and sees it as part of her job. She reports that 80% of the children she cares for with common complaints like stomachaches and symptoms of ADHD can actually trace those ailments back to adverse childhood experiences. “Hahn

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144. *Id.* at 27–28.

145. ‘Adverse Childhood Experiences’: *Early Life Events that Can Damage Our Adult Health*, ROBERT WOOD JOHNSON FOUND.: CULTURE OF HEALTH (2013), [http://www.rwjf.org/en/culture-of-health/2013/09/\\_adverse\\_childhood0.html](http://www.rwjf.org/en/culture-of-health/2013/09/_adverse_childhood0.html) [<https://perma.cc/9T3P-XCEG>].

146. Jane Ellen Stevens, *To Prevent Childhood Trauma, Pediatricians Screen Children and Their Parents . . . and Sometimes, Just Parents . . . for Childhood Trauma*, ACES TOO HIGH (2014), <http://acestoohigh.com/2014/07/29/> [<https://perma.cc/QD45-PSBD>].

147. Stephanie M. Lee, *Dr. Nadine Burke Harris Gets to the Heart of Children’s Stress*, SFGATE (2015), <http://www.sfgate.com/visionsf/article/Dr-Nadine-Burke-Harris-gets-to-the-heart-of-6082828.php#photo-7529272> [[perma.cc/6VKX-U6E3](https://perma.cc/6VKX-U6E3)].

148. *Id.*

149. Brittany Bartkowiak, *Are Michigan Doctors Ignoring the State’s “Biggest Public Health Problem?”*, ST. OF OPPORTUNITY (2015), <http://stateofopportunity.michiganradio.org/post/are-michigan-doctors-ignoring-states-biggest-public-health-problem> [<https://perma.cc/TU3X-7WKE>].



worries if doctors don't understand trauma and adversity, they will come to a wrong diagnosis . . . [o]r prescribe psychotropic drugs kids don't need for a condition they don't have."<sup>150</sup> These practices reflect a growing trend among primary care pediatricians and other primary care providers that the underlying causes of some chronic illnesses and emotional and behavioral problems in children derive from previously undisclosed ACEs.<sup>151</sup>

## II. HIGH RATES OF TRAUMA AMONG DELINQUENT AND CRIMINAL JUSTICE POPULATIONS

More than one million youth are arrested in the United States each year.<sup>152</sup> Many of these juvenile offenders have experienced high rates of trauma in their lives.<sup>153</sup> In fact, chronic, frequent, severe maltreatment has been associated with more severe and chronic delinquent behavior, and this link holds true across ethnicity and gender.<sup>154</sup> Community violence, domestic violence, traumatic loss, and other forms of trauma exposure have also been linked to delinquency involvement.<sup>155</sup>

Although researchers are just beginning to use the ACEs framework to assess whether there are higher rates of ACEs specifically among the delinquency-involved population, the prevalence of trauma more broadly among this population is well-established. For example, one study found that more than 92% of youth involved in the juvenile justice system reported having

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150. *Id.*

151. See Robert F. Anda et al., *The Enduring Effects of Abuse and Related Adverse Experiences in Childhood: A Convergence of Evidence from Neurobiology and Epidemiology*, 256 EUR. ARCHIVES PSYCHIATRY & CLINICAL NEUROSCIENCE 174, 178 (2006).

152. See *Estimated Number of Juvenile Arrests, 2012*, U.S. DEP'T OF JUST. (2012), <http://ojjdp.gov/ojstatbb/crime/qa05101.asp?qaDate=2012> [https://perma.cc/SLG3-DN5Y] (reporting 1,319,700 arrests of persons under 18 in 2012, the most recent year for which data is available).

153. See generally Carly B. Dierkhising et al., *Trauma Histories Among Justice-involved Youth: Findings from the National Child Traumatic Stress Network*, 4 EUR. J. PSYCHOTRAUMATOLOGY 20274 (2013), <http://www.ejpt.net/index.php/ejpt/article/view/20274> [https://perma.cc/5NUZ-659F] (noting that "[u]p to 90% of justice-involved youth report exposure to some type of traumatic event").

154. See Carolyn Smith & Terrence P. Thornberry, *The Relationship Between Childhood Maltreatment and Adolescent Involvement in Delinquency*, 33 CRIMINOLOGY 451, 463 (1995).

155. David W. Foy et al., *Trauma Exposure, Posttraumatic Stress, and Comorbidities in Female Adolescent Offenders: Findings and Implications from Recent Studies*, 3 EUR. J. PSYCHOTRAUMATOLOGY 17247 (2012), <http://www.ejpt.net/index.php/ejpt/article/view/17247> [https://perma.cc/7P2D-JKMU].

experienced at least one form of trauma.<sup>156</sup> “Polyvictimization,” involving multiple trauma exposures, is common.<sup>157</sup> In a study examining adolescents with recent involvement in the juvenile justice system within the National Child Traumatic Stress Network’s Core Data Set, the average number of different trauma types experienced by justice-involved youth in the sample was 4.9,<sup>158</sup> with another study finding a mean of 14.6<sup>159</sup> traumatic events in the lives of youth involved in the delinquency system. Justice-involved youth report higher prevalence rates than the general population for a variety of forms of trauma, with studies showing that a range of 30% to 50% of juvenile justice-involved youth have experienced physical violence,<sup>160</sup> 50% have experienced maltreatment,<sup>161</sup> and up to 25% have

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156. See generally Karen M. Abram et al., *Posttraumatic Stress Disorder and Trauma in Youth in Juvenile Detention*, 61 ARCHIVES GEN. PSYCHIATRY 403 (2004) [hereinafter Abram et al., *Posttraumatic Stress*]. The study randomly selected 898 African-American, non-Hispanic white, and Hispanic youth ages 10–18 who were recently arrested or detained in Cook County, Illinois. *Id.* at 404. Males reported greater amount of traumas (93%) than females (84%). *Id.* at 405. 11.2% of the youth met criteria for a PTSD diagnoses within the past year. *Id.* at 406. Witnessing violence was the most common form of trauma. *Id.* at 407. In contrast to the 92.5% of youth in the study who reported having experienced one or more traumas, studies of the general population have shown that by the age of 16, only 60% of adolescents in the general population have experienced at least one trauma. *Id.* at 407 tbl.2; accord William E. Copeland et al., *Traumatic Events and Posttraumatic Stress in Childhood*, 64 ARCHIVES GEN. PSYCHIATRY 577, 579 (2007); David Finkelhor et al., *Children’s Exposure to Violence: A Comprehensive National Survey*, U.S. DEP’T JUST.: JUV. JUST. BULL. 1, 1 (2009), <http://files.eric.ed.gov/fulltext/ED506963.pdf> [<https://perma.cc/Y9JV-BNHZ>].

157. See Abram et al., *Posttraumatic Stress*, *supra* note 156, at 405 (finding that 84% of justice-involved youth in the study had experienced more than one trauma, with a median number of 6 incidents and a mean of 14.6); Dierkhising et al., *supra* note 153 (reporting 90% of youth in the study sample experienced multiple trauma types).

158. Dierkhising et al., *supra* note 153. The most frequently reported trauma types were loss and bereavement, impaired caregiver, domestic violence, emotional abuse/psychological maltreatment, physical maltreatment/abuse, and community violence. *Id.*

159. Abram et al., *Posttraumatic Stress*, *supra* note 156, at 405.

160. Compare Abram et al., *Posttraumatic Stress*, *supra* note 156, at 406 tbl.1, and Karen M. Abram et al., *PTSD, Trauma, Comorbid Disorders In Detained Youth*, U.S. DEP’T JUST.: JUV. JUST. BULL. 1, 5 tbl.1 (2013), <http://www.ojjdp.gov/pubs/239603.pdf> [<https://perma.cc/42SH-YUZV>] [hereinafter Abram et al., *PTSD, Trauma, Comorbid*] (finding that the prevalence of violent trauma for juvenile justice youth is high, with the prevalence of physical trauma varying between 30–50% within the sample), with Finkelhor et al., *supra* note 156, at 1 (noting that only one in ten youth in the general population are assaulted before the age of 16).

161. Compare Dierkhising et al., *supra* note 153 (finding that one in two children in the study of juvenile justice-involved youth suffered emotional psychological maltreatment and two in five suffered from physical maltreatment), with Finkelhor et

experienced sexual abuse,<sup>162</sup> all rates higher than the general population. Some studies have looked at the correlation between specific types of trauma and the resulting likelihood of offending. For example, one study found that justice-involved youth who experienced sexual abuse were nearly five times more likely to commit sexual crimes than non-offenders.<sup>163</sup> Those who experienced physical violence were four times more likely to offend, while neglected youth were twice as likely to offend.<sup>164</sup> Generally, youth who experienced trauma were twice as likely to be arrested.<sup>165</sup> Justice-involved youth, as compared to non-offending youth, were twice as likely to have been arrested in later adolescence and one-and-a-half times more likely to be arrested as adults.<sup>166</sup> Unfortunately, “violence begets violence,” and today’s traumatized children, like Loretta and Antonio, are likely to become tomorrow’s offenders.<sup>167</sup> Certain factors, such as gender differences and the timing of that trauma very early in childhood, can affect the trauma experience and its impact on a child.

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al., *supra* note 156, at 1 (finding that one in ten children in the general population are victims of some form of maltreatment).

162. Compare Abram et al., *PTSD, Trauma, Comorbid*, *supra* note 160, at 5 tbl.1, and Dierkhising et al., *supra* note 153 (indicating that about one in six male and one in three female juvenile justice-involved youth reported sexual maltreatment with an average of one in four for the entire sample), with Finkelhor et al., *supra* note 156, at 1 (indicating that the prevalence of sexual abuse in the youth of the general population ranges from one in ten to one in sixteen); accord Copeland et al., *supra* note 156, at 580.

163. Cathy Spatz Widom, *Victims of Childhood Sexual Abuse—Later Criminal Consequences*, U.S. DEP’T JUST.: NAT’L INST. JUST. RES. BRIEF 1, 6 (1995), <https://www.ncjrs.gov/pdffiles/abuse.pdf> [<https://perma.cc/FW89-HUAW>].

164. *Id.* at 5; see also Misaki N. Natsuaki et al., *Continuity and Changes in the Developmental Trajectories of Criminal Career: Examining the Roles of Timing of First Arrest and High School Graduation*, 37 J. YOUTH ADOLESCENCE 431, 431, 436 (2008) (noting that early interactions with the justice system are one of the most robust predictors of chronic and persistent delinquency).

165. Jennifer E. Lansford et al., *Early Physical Abuse and Later Violent Delinquency: A Prospective Longitudinal Study*, 12 CHILD MALTREATMENT 233, 238 (2007); Widom, *supra* note 163, at 4, 5 tbl.2 (indicating that for any abuse or maltreatment youth victimized were 26% more likely for juvenile arrests compared to non-abused and non-neglected youth who had a 16% chance).

166. Widom, *supra* note 163, at 4.

167. Cathy S. Widom & Michael Maxfield, *An Update on the “Cycle of Violence,”* U.S. DEP’T JUST.: NAT’L INST. JUST. RES. BRIEF 1, 1 (2001), <https://www.ncjrs.gov/pdffiles1/nij/184894.pdf> [<https://perma.cc/B2ZH-YXL3>].

### A. Gender Differences

Female youth report sexual abuse at higher rates than males.<sup>168</sup> These rates are particularly high for youth involved in the juvenile justice population, as justice-involved females are twice as likely to have experienced sexual assault.<sup>169</sup> Across various studies, female offenders average rates of rape and sexual abuse five<sup>170</sup> to fifteen<sup>171</sup> times higher than male juvenile offenders. Another study comparing juvenile justice-involved females and non-involved females found that justice-involved females were twice as likely to have experienced sexual abuse before the age of thirteen.<sup>172</sup> Understanding the unique ways in which girls, like Loretta, experience childhood trauma, and the impact of that trauma, can help guide efforts to disrupt the path from that trauma to delinquency system involvement.

### B. High Rates of Trauma in Early Childhood

Trauma experienced by juvenile justice-involved youth frequently begins early in life,<sup>173</sup> is experienced by the child in multiple contexts, and persists over time.<sup>174</sup> One national study, which sampled youth who had been in a detention center or seen a probation officer within thirty days, found that up to 34% of those youth experienced at least one traumatic event before the age of one, as identified using the trauma history profile tool, which is a comprehensive assessment of an individual's trauma history across their lifespan that includes nineteen different types of traumatic events, such as school violence, sexual assault, and displacement.<sup>175</sup> A different study, which followed

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168. See Finkelhor et al., *supra* note 156, at 6.

169. Dana K. Smith et al., *Adolescent Girls' Offending and Health Risking Sexual Behavior: The Predictive Role of Trauma*, 11 CHILD MALTREATMENT 346, 350 (2006).

170. Dierkhising et al., *supra* note 153.

171. Abram et al., *Posttraumatic Stress*, *supra* note 156, at 405 tbl.1; Abram et al., *PTSD, Trauma, Comorbid*, *supra* note 160, at 5.

172. Smith et al., *supra* note 169, at 350.

173. See Dierkhising et al., *supra* note 153 (finding that 62.14% of the study sample experienced trauma in the first five years of life).

174. *Id.*

175. *Id.* This tool is derived from the Trauma History Profile Portion of the UCLA PTSD Reaction Index, which identifies the nineteen types of trauma assessed in the study. See Robert S. Pynoos & Alan M. Steinberg, *UCLA PTSD Reaction Index for Children and Adolescents – DSM IV*, 1–2 (2002), <http://lausdsmh.net/wp-content/uploads/2012/03/UCLA-PTSD-RI-Child-Adol-Self-Report.pdf> [<https://perma.cc/V9SM-L842>].

youth from ages five to twenty-one longitudinally in Tennessee and Indiana, found that 11% of justice-involved youth had experienced trauma before the age of five.<sup>176</sup> Identification of trauma very early in a child's life, such as the trauma experienced in the first few years of the lives of Antonio and Loretta, and recognition of the link with subsequent juvenile justice involvement, can inform the development of efforts to improve the futures of young children who have experienced trauma.

### C. ACEs Among the Juvenile Justice Population

While there have been extensive studies of trauma among the juvenile justice population, as described above, researchers are more recently beginning to specifically use the ACEs framework, which looks at a discrete set of childhood traumatic experiences that have been linked to poor health and mental health outcomes, as well as risk behaviors,<sup>177</sup> to assess childhood trauma and its potential impact among that population. As in the studies described above finding high rates of trauma among the juvenile justice population, the few studies specifically examining ACEs among juvenile offenders have also discovered high rates of those forms of trauma.

For example, a study of 64,329 youth who had been referred to the Florida Department of Juvenile Justice for allegations of delinquency found that 52% had an ACE score of four or more.<sup>178</sup> Moreover, 90% of those surveyed reported having experienced at least two ACEs, and a full 32% experienced five or more.<sup>179</sup> This study further found that youth involved in the delinquency system are thirteen times less likely to report zero ACEs and four times more likely to report four or more ACEs than their peers in the general population.<sup>180</sup> The researchers also found a correlation between increased ACE score and increased recidivism among juveniles, and noted that female youth involved in the juvenile justice system were more likely to experience trauma than males, although both had higher rates of ACEs than those of the general population.<sup>181</sup>

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176. Lansford et al., *supra* note 165, at 240.

177. *See* discussion *supra* Part I.

178. Michael T. Baglivio et al., *The Prevalence of Adverse Childhood Experiences (ACE) in the Lives of Juvenile Defendants*, 3 J. JUV. JUST. 1, 9 (2014) (64,379 Florida youth were given official referrals, meaning that their crimes were equal to that of adult charges).

179. *Id.*

180. *Id.* at 10.

181. *Id.* at 10–13.

Similarly, the Massachusetts Juvenile Court Clinic screened 471 juvenile offenders and compared the findings to a CDC study of the general youth population.<sup>182</sup> “Nearly two-thirds (63%) of the Juvenile Court sample had four or more ACEs, in comparison with only 12.5% in the CDC sample.”<sup>183</sup> Further, the Massachusetts juvenile offenders had a median ACE score of five in comparison to the CDC study of general population youth, who had only experienced a median ACE score of one.<sup>184</sup>

Similarly, hoping to better understand the needs of the juvenile justice population here in New Mexico, the authors of this Article recently conducted a study, *Adverse Childhood Experiences in the New Mexico Juvenile Justice Population*, in collaboration with the New Mexico Children, Youth, and Family Department’s Juvenile Justice Service Director of Psychiatric Services, Dr. George Davis, MD and the New Mexico Sentencing Commission (NMSC)<sup>185</sup> to assess the ACEs and related mental health conditions of youth committed by a court to the state’s juvenile justice facilities following an adjudication of delinquency.<sup>186</sup> The study examined multi-disciplinary reports completed following a three-week intake process for each of the youth committed to state juvenile justice facilities in 2011.<sup>187</sup> These reports drew on educational, medical, child protective services, psychological, psychiatric, and juvenile justice records, as well as interviews with the youth, their guardians, and probation officers.<sup>188</sup> High numbers of ACEs among this population were identified, significantly higher than the rates of ACEs identified in studies more representative of the general population, such as the original ACE Study and a New Mexico study called the Behavioral Risk Factor Surveillance System (BRFSS) conducted in collaboration

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182. MASS. ALL. OF JUV. COURT CLINICS, *Vulnerabilities of Court-involved Children and Families Massachusetts Alliance of Juvenile Court Clinics* 1, 6, <http://www.kidsandthelaw.org/resources/Vulnerabilities%2010.21.13.pdf> [<https://perma.cc/9TBX-J5GJ>].

183. *Id.*

184. *Id.*

185. See Yael Cannon et al., *Adverse Childhood Experiences in the New Mexico Juvenile Justice Population*, N.M. SENTENCING COMM’N 1 (2016), <http://nmsc.unm.edu/reports/2016/adverse-childhood-experiences-in-the-new-mexico-juvenile-justice-population.pdf> [<https://perma.cc/M8NM-MUQM>].

186. *Id.* at 1; see also N.M. STAT. ANN. § 32A-2-19(B) (2001) (describing the court’s authority under the New Mexico Children’s Code to commit youth who have been adjudicated delinquent to a facility for their care and rehabilitation).

187. Cannon et al., *supra* note 185, at 4.

188. *Id.*

with the CDC.<sup>189</sup> For example, youth in the New Mexico study were seven times more likely to have four or more ACEs than the sample population in the original ACE Study.<sup>190</sup> Rates of ACEs among these youth were similarly higher than those identified by the Florida study of juvenile offenders described above, as youth in the New Mexico study were also more likely to have four or more ACEs (86% compared to 50%) than the Florida study.<sup>191</sup> The majority of youth in the New Mexico study experienced emotional (76%) or physical (94%) neglect, parental divorce/separation (86%), and substance abuse in the home (80%).<sup>192</sup> Astoundingly, 23% of females experienced nine or more ACEs.<sup>193</sup> The study also found high rates of psychological conditions among New Mexico's incarcerated youth, including Axis I diagnoses (99.5%), Substance Abuse Disorders (96%), and diagnoses of Depression (48%) under the Diagnostic and Statistical Manual, Fourth Edition.<sup>194</sup> The study concluded that efforts are needed to identify and prevent early childhood trauma in New Mexico, that screening of youth in the state's juvenile justice system for trauma is critical, and that evidence-based, trauma-informed, family-engaged mental health and substance abuse treatments should be available throughout the juvenile justice system and to youth subsequent to discharge from detention and incarceration.<sup>195</sup>

Another study surveyed 916 girls and young women across eighteen states, including four sample groups: young mothers involved with the juvenile justice system; young mothers involved with the child welfare system; all young mothers in the sample size; and the entire sample, which included women who were not mothers.<sup>196</sup> Fifty-three percent of women in the full sample size had experienced four or more ACEs and 42% had experienced five or more ACEs.<sup>197</sup> Those rates increased to 61% and 48%, respectively, for young mothers and young mothers involved in the child welfare

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189. *Id.* at 2, 7.

190. *Id.* at 6, 7.

191. *Id.* at 7.

192. *Id.* at 1.

193. *Id.*

194. *Id.*

195. *Id.*

196. THE NAT'L CRITTENTON FOUND., SUMMARY OF RESULTS: CRITTENTON ADVERSE CHILDHOOD EXPERIENCES (ACE) PILOT, 2 (2012), <https://acestoohigh.files.wordpress.com/2012/11/crittentonaceresults.pdf> [<https://perma.cc/QR6Q-6WGB>].

197. *Id.* at 4.

system.<sup>198</sup> These rates were highest for those young mothers involved with the juvenile justice system: fully 74% of them experienced four or more ACEs; and 69% had experienced five or more ACEs.<sup>199</sup> Those young mothers also completed ACE surveys for their own children.<sup>200</sup> Although the sample size for children was small, the data shows that a number of these children of juvenile offenders were already beginning to accumulate high rates of ACEs early in life, with 9% of children aged five to seven years having five or more ACEs,<sup>201</sup> and 28% of the children aged eleven to thirteen years having experienced five or more ACEs.<sup>202</sup>

Other studies have examined the prevalence of ACEs among adults in the criminal justice system and found similarly high rates of childhood trauma, including in New Mexico. The New Mexico Sentencing Commission and the New Mexico Statistical Analysis Center (NMSAC) analyzed data from surveys administered to women incarcerated in the New Mexico Women's Correctional Facility in order to gain a fuller understanding of female offenders, including their victimization history, reporting patterns, post-release concerns, and prevalence of ACEs.<sup>203</sup> Women who completed the survey were much more likely to have experienced household dysfunction and child abuse than women who participated in the general population ACEs studies.<sup>204</sup> Only 11.4% of incarcerated women reported zero ACEs, in contrast to 31.3% of women in the general population.<sup>205</sup> In addition, 38.1% of incarcerated women reported greater than or equal to five ACEs, in stark contrast to the 12.5% of women in the general population.<sup>206</sup> Incarcerated women reported nearly double the prevalence in comparison to women within the general population for ACEs categorized as abuse and family violence.<sup>207</sup> These categories include: emotional neglect; physical abuse; physical neglect; sexual abuse; family member

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198. *Id.*

199. *Id.*

200. *Id.* at 5.

201. *Id.*

202. *Id.*

203. N.M. SENTENCING COMM'N, PREVALENCE OF ADVERSE CHILDHOOD EXPERIENCES & VICTIMIZATION AMONG NEW MEXICO'S FEMALE INMATE POPULATION, 1 (2013), [http://nmcsap.org/wp-content/uploads/NM\\_Sent\\_Comm\\_Final\\_Report\\_on\\_Woman\\_Inmates.pdf](http://nmcsap.org/wp-content/uploads/NM_Sent_Comm_Final_Report_on_Woman_Inmates.pdf) [https://perma.cc/M6QD-KMSQ].

204. *Id.* at 5.

205. *Id.*

206. *Id.* at 5 tbl.3.

207. *Id.*



substance abuse and mental illness; and parental divorce or separation.<sup>208</sup> In these ways, this study revealed that many of New Mexico's adult female offenders experienced very high rates of childhood trauma.

Another study focused on 151 male offenders from four different offender groups, who were surveyed during outpatient treatment programs subsequent to criminal convictions.<sup>209</sup> Although all four offender groups (i.e., those convicted of child abuse, domestic violence, sexual offenses, and stalking) showed a greater prevalence for ACEs than the male normative sample from the CDC's general ACEs population studies, the study highlighted differences among the offender groups.<sup>210</sup> Sexual offenders had the largest percentage of four or more ACEs at 42%, followed by domestic abusers with 18%, child abusers with 8%, and stalkers at 5%.<sup>211</sup> The authors also noted in their findings that the offenders were two-and-a-half times more likely to have contracted a sexually transmitted disease and three times more likely to have had fifty or more sexual partners.<sup>212</sup> A different study focusing specifically on a sample of 679 male sexual offenders from nine different states resulted in similar findings to the above study, with a full 45.7% reporting having experienced four or more ACEs.<sup>213</sup> Just as the link between childhood trauma and delinquency has been well-established, as described above, these studies are beginning to use the ACEs framework to similarly describe the correlation between high numbers of ACEs and criminal justice system involvement. Using the ACEs framework to understand the childhood trauma of these populations provides critical context for an analysis of this path as a result of the unique understanding of the likely health, mental health, and risk behavior outcomes of those individuals provided by the rich body of ACEs literature.<sup>214</sup> For example, if an assessment reveals high numbers of

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208. *Id.* at 1.

209. James A. Reavis et al., *Adverse Childhood Experiences and Adult Criminality: How Long Must We Live Before We Possess Our Own Lives?*, 17 PERMANENTE J. 44, 44 (2013).

210. *Id.* at 46. The normative population studies show zero ACEs among 38% of males, in comparison to the offenders surveyed in this study, of which only 9.3% had zero ACEs. *Id.* at 46 tbl.1.

211. *Id.* at 46 tbl.2.

212. *Id.* at 44.

213. Jill S. Levenson et al., *Adverse Childhood Experiences in the Lives of Male Sex Offenders: Implications for Trauma-Informed Care*, SEXUAL ABUSE: J. RES. & TREATMENT 1, 5, 10 (2014).

214. *See supra* Part I.

ACEs among a certain population, the ACEs studies indicate that those individuals are much more likely to experience poor health and mental health outcomes.<sup>215</sup> Therefore, the ACEs framework gives a unique perspective, beyond those studies that use other tools for assessing trauma, on this path from childhood trauma to delinquency and criminal justice system involvement, the likely health and mental health needs of offenders, and the ways in which interventions to address health and mental health needs might play a role in disrupting that path for children who have experienced ACEs, like Loretta and Antonio.

#### **D. Effect of Childhood Trauma on Mental Health Needs of Youth in the Juvenile Justice System**

While trauma exposure is “common among justice involved youth it is not yet clear what the mechanisms of influence are between trauma and delinquency.”<sup>216</sup> The effects of trauma on the mental health of youth and the associated challenges with self-regulation described above in Section I.B can help to explain the link. Post-traumatic Stress Disorder, or PTSD, is one mental health disorder with which some trauma survivors struggle. The American Psychiatric Association defines PTSD as:

[A] psychiatric disorder that can occur in people who have experienced or witnessed a traumatic event such as a natural disaster, a serious accident, a terrorist act, war/combat, rape or other violent personal assault.

....

People with PTSD continue to have intense, disturbing thoughts and feelings related to their experience that last long after the traumatic event has ended. They may relive the event through flashbacks or nightmares; they may feel sadness, fear or anger; and they may feel detached or estranged from other people. People with PTSD may avoid situations or people that remind them of the traumatic event, and they may have strong negative reactions to something as ordinary as a loud noise or an accidental touch.<sup>217</sup>

Justice-involved youth experience higher rates of PTSD than the general population, as well as other mental health disorders, such as

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215. *See supra* note 212 and accompanying text.

216. Dierkhising et al., *supra* note 153.

217. *What is PTSD?*, AM. PSYCHIATRIC ASS'N (2015), <http://www.psychiatry.org/patients-families/ptsd/what-is-ptsd> [<https://perma.cc/7Y8Z-P4VT>].

depression and anxiety.<sup>218</sup> In fact, approximately 70% of justice-involved youth in a nationally representative study met criteria for at least one mental health disorder and 79% of those youth met criteria for two or more diagnoses.<sup>219</sup> Compared to adolescents who have not been exposed, a national survey showed that those exposed to multiple forms of trauma have “double the risk for major depressive disorder, triple the risk for PTSD, and five to eight times the risk for comorbid disorders.”<sup>220</sup> “As many as half of the youth in the juvenile justice system [will] experience chronic health and psychological [conditions] related to trauma.”<sup>221</sup> The National Center for Mental Health and Juvenile Justice summarized some of the ways that trauma can lead to mental health challenges and delinquency involvement in this way:

When exposed to trauma or mistreatment, a youth may cope by resorting to indifference, defiance, or aggression as self-protective reactions. In these cases, risk taking, breaking rules, fighting back, and hurting others who are perceived to be powerful or vulnerable may become a way to survive emotionally or literally. It is often these behaviors that bring youth into the juvenile justice system.<sup>222</sup>

Youth who have experienced multiple trauma types have difficulties regulating their emotions and experience internalization of problems.<sup>223</sup> In addition to internalization that can manifest as anxiety or depression, youth exposed to trauma can also externalize

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218. Dierkhising et al., *supra* note 153 (citing Jennie L. Schufelt & Joseph J. Cocozza, *Youth with Mental Health Disorders in the Juvenile Justice System: Results from a Multi-state Prevalence Study*, NCMHJJ RES. & PROGRAM BRIEF 1, 2 (2006), <http://www.ncmhjj.com/wp-content/uploads/2013/07/7.-PrevalenceRPB.pdf> [<https://perma.cc/6GU7-58VC>]); *see also* Rose M. Giaconia et al., *Comorbidity of Substance Use and Post-Traumatic Stress Disorders in a Community Sample of Adolescents*, 70 AM. J. ORTHOPSYCHIATRY 253, 257 (2000) (noting that PTSD is often accompanied by other mental health disorders); Rose Giaconia et al., *Traumas and Posttraumatic Stress Disorder in a Community Population of Older Adolescents*, 34 J. AM. ACAD. CHILD ADOLESCENT PSYCHIATRY 1369, 1375 (1995) (showing that nearly 80% of youth who had PTSD had one or more additional disorders).

219. Schufelt & Cocozza, *supra* note 218, at 2–3.

220. Dierkhising et al., *supra* note 153 (citing Julian D. Ford et al., *Poly-Victimization and Risk of Posttraumatic, Depressive, and Substance Use Disorders and Involvement in Delinquency in a National Sample of Adolescents*, 46 J. ADOLESCENT HEALTH 545, 548 (2010) [hereinafter Ford et al., *Poly-Victimization*]).

221. Julian D. Ford et al., *Trauma Among Youth in the Juvenile Justice System: Critical Issues and New Directions*, NCMHJJ RES. & PROGRAM BRIEF 1, 2 (2007), [http://www.ncmhjj.com/wp-content/uploads/2013/10/2007\\_Trauma-Among-Youth-in-the-Juvenile-Justice-System.pdf](http://www.ncmhjj.com/wp-content/uploads/2013/10/2007_Trauma-Among-Youth-in-the-Juvenile-Justice-System.pdf) [<https://perma.cc/GFY8-Z668>] [hereinafter Ford et al., *Trauma Among Youth*].

222. *Id.* at 3.

223. Finkelhor et al., *supra* note 156, at 2.

problems through aggression, conduct problems, or defiant behavior,<sup>224</sup> which may explain some of the behaviors that Antonio exhibited. Another study found that justice-involved youth in the sample overwhelmingly exhibited substance/alcohol use disorders, along with other mental health problems.<sup>225</sup> Studies have also directly linked ACEs to higher rates of violence perpetrated by adolescents<sup>226</sup> and other forms of delinquent behavior.<sup>227</sup> These studies, in concert with the ACEs studies showing poor health risk behaviors and mental health outcomes, reinforce the existence of a pathway from childhood trauma to poor mental health and risk behaviors and juvenile justice system involvement.

### III. SOLUTION: A COLLABORATIVE, MULTI-GENERATIONAL, UPSTREAM MODEL

Early, preventive measures are critical to altering the trajectory of trauma, mental health challenges and related risk-taking behaviors, and resulting delinquency and criminal justice system involvement. Early childhood interventions can play a role in disrupting that common path, as experiences of children during pivotal developmental stages have long lasting implications. The authors collaborate on a multi-generational, multi-disciplinary, upstream approach to address ACEs and their impact early, through the University of New Mexico's Medical Legal Alliance, with a goal of improving outcomes for children like Antonio and Loretta.

#### A. Need for Early Identification and Intervention

Numerous studies conclude that juvenile justice systems should become more "trauma-informed" so that those systems can better respond to the needs of traumatized youth.<sup>228</sup> For example, juvenile justice institutions often lack the necessary systems to screen for

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224. Ford et al., *Trauma Among Youth*, *supra* note 221, at 1.

225. Dierkhising et al., *supra* note 153 (noting that examples of PTSD symptom clusters include re-experiencing, hyperarousal, and avoidance).

226. *See generally* Naomi N. Duke et al., *Adolescent Violence Perpetration: Associations with Multiple Types of Adverse Childhood Experiences*, 125 PEDIATRICS e778 (2010).

227. *See generally* Mark Bellis et al., *Adverse Childhood Experiences: Retrospective Study to Determine Their Impact on Adult Health Behaviours and Health Outcomes in a UK Population*, 36 J. PUB. HEALTH 81 (2013).

228. Dierkhising et al., *supra* note 153.

behavioral health needs,<sup>229</sup> and there is a critical need for improved screening for trauma in particular.<sup>230</sup> Specific screening and services based on gender are also key, as a result of the extensive research finding that male and female youth offenders have different needs based on the more gender-specific trauma experiences.<sup>231</sup> Juvenile justice institutions often lack the necessary behavioral health treatment and trauma-informed approaches to ensure that youth are not re-traumatized by their experiences in the delinquency system.<sup>232</sup> As a result, there are concerns that more maltreatment of youth occurs within facilities, exacerbating mental health symptoms and resulting in recidivism.<sup>233</sup> Therefore, trauma-informed services must be structured to avoid re-traumatization of youth.<sup>234</sup>

Since maltreatment often goes unnoticed, these types of remedial approaches to improve the juvenile justice system are commonly recommended.<sup>235</sup> While it is critical that juvenile justice systems become more trauma-informed in these ways in order to better serve the juvenile justice populations, more preventive, early efforts are also needed to improve outcomes for children who have experienced ACEs and divert those children from a path to the juvenile justice system. During childhood, important brain structures are altered as a result of trauma that alter behavior and risk aversion during and after adolescence.<sup>236</sup> Youth who experience trauma earlier on are more likely to commit offenses than those who experience it later, and those who experience trauma are more likely to offend than those who do not.<sup>237</sup> Studies indicate specifically “that the experience of risk factors (e.g., parenting problems, conduct problems, academic

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229. *Id.*; see also Malika Saada Saar et al., *The Sexual Abuse Prison Pipeline: Girls' Story* 15 (2015), [http://rights4girls.org/wp-content/uploads/r4g/2015/02/2015\\_COP\\_sexual-abuse\\_layout\\_web-1.pdf](http://rights4girls.org/wp-content/uploads/r4g/2015/02/2015_COP_sexual-abuse_layout_web-1.pdf) [<https://perma.cc/2GVT-3CDN>].

230. Abram et al., *Posttraumatic Stress*, *supra* note 156, at 408; Abram et al., *PTSD, Trauma, Comorbid Disorders*, *supra* note 160, at 9.

231. Dierkhising et al., *supra* note 153; see also Saar et al., *supra* note 229, at 17.

232. Abram et al., *Posttraumatic Stress*, *supra* note 156, at 408; Saar et al., *supra* note 229, at 15; see also Dierkhising et al., *supra* note 153; Ford et al., *Trauma Among Youth*, *supra* note 221, at 2.

233. Saar et al., *supra* note 229, at 12–15; see also Ford et al., *Trauma Among Youth*, *supra* note 221, at 3.

234. Abram et al., *Posttraumatic Stress*, *supra* note 156, at 408; Abram et al., *PTSD, Trauma, Comorbid Disorders*, *supra* note 160, at 9.

235. See CTRS. FOR DISEASE CONTROL & PREVENTION, *Adverse Childhood Experiences Reported by Adults—Five States, 2009*, 59 MORBIDITY & MORTALITY WKLY. REP. 1609, 1613 (2010).

236. Kathleen M. Heide & Eldra P. Solomon, *Biology, Childhood Trauma, and Murder: Rethinking Justice*, 29 INT'L. J.L. & PSYCHIATRY 220, 224 (2006).

237. *Id.* at 229.

failure, peer rejection) early in life are associated with more chronic delinquency and that children who begin their delinquent careers in childhood, rather than adolescence, become the most consistent and chronic offenders.”<sup>238</sup> Moreover, when children experience trauma early in life, they are more likely to experience other forms of trauma as they get older.<sup>239</sup> One study recognized that youth who experienced at least one traumatic event before the age of five were more likely than those who experienced it later to be arrested as juveniles.<sup>240</sup> The research therefore suggests that intervention as early as possible in the lives of children who experience ACEs is key to preventing irreparable harm to individuals,<sup>241</sup> thereby avoiding the high costs associated with the treatment and incarceration of those individuals.<sup>242</sup>

The ACE Study documented that up to two-thirds of adults facing a mental health crisis or incarceration had a childhood marred by abuse, neglect, and environmental risk factors that created the conditions for extreme stress.<sup>243</sup> A child who experiences repeated and unresolved extreme stresses learns to adapt. In the context of toxic stress, recent research shows that a child can have changes in his or her endocrine and brain systems.<sup>244</sup> Changes in hormonal control of reactions to stress may underlie some of the chronic health conditions seen in the adults studied.<sup>245</sup> Changes in the brain systems may have contributed to the dysregulated behaviors leading to school and learning problems as well as the risky health behaviors that caused encounters with the legal systems.<sup>246</sup> Some of the adverse experiences might have had resolution before becoming toxic to the child’s adaptive systems, but parents, providers, and other adults having influence on the lives of children hid, did not identify, or failed to intervene in ways that might have prevented the poor outcomes that started early in the lives of those studied. For these reasons, early identification of ACEs and subsequent early intervention are

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238. Dierkhising et al., *supra* note 153.

239. Ford et al., *Poly-Victimization*, *supra* note 220, at 545.

240. Lansford et al., *supra* note 165, at 233.

241. *See* Felitti et al., *supra* note 23, at 255.

242. Baglivio et al., *supra* note 178, at 11.

243. *See* Eamon McCrory, Stephane A. De Brito & Essi Viding, *The Impact of Childhood Maltreatment: A Review of Neurobiological and Genetic Factors*, 2 FRONTIERS PSYCHIATRY CHILD & NEURODEVELOPMENTAL PSYCHIATRY 1, 5 (2011).

244. *Id.* at 2–3.

245. *Id.* at 3.

246. Y. Hser et al., *Children of Treated Substance-abusing Mothers: A 10-year Prospective Study*, 19 CLINICAL CHILD PSYCHOL. & PSYCHIATRY 217, 218 (2014).

critical to being able to intervene effectively to disrupt the pathway from childhood trauma to juvenile justice and ensure better outcomes for those children.

### **B. Early Identification of a Particular ACE in Albuquerque, New Mexico: Household Substance Abuse**

New Mexico has one of the highest poverty rates of any state in the United States.<sup>247</sup> The Albuquerque metropolitan area is the largest urban area in the state and is home to nearly 31% of the state's population.<sup>248</sup> Both New Mexico and Albuquerque exceed the national average for rates of substance abuse and use of illicit drugs.<sup>249</sup> Against this backdrop, there are many children in Albuquerque and surrounding Bernalillo County born with at least one ACE from the very start of their lives: household substance abuse. One of the authors of this article, Dr. Andrew Hsi, came to observe this phenomenon when he assumed the role of Medical Director of the newborn nursery at the University of New Mexico Hospital in 1987. Dr. Hsi observed the use of illegal drugs by pregnant women in the greater Albuquerque metropolitan area. In particular, heroin use had a major negative effect on pregnancies and the infants born of those pregnancies. In 1987, a review of medical records of the babies admitted to the normal nursery found 6% had

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247. See *Poverty Rate by Race/Ethnicity*, HENRY J. KAISER FAM. FOUND., <http://kff.org/other/state-indicator/poverty-rate-by-raceethnicity/> [https://perma.cc/PYK4-NVVL]; see also U.S. CENSUS BUREAU, POVERTY (2015) <http://www.census.gov/hhes/www/poverty/> (follow “Poverty Rates by County: 1960–2010” hyperlink) [https://perma.cc/2XFA-RWTE]. An estimated 22% of New Mexicans lived below the federal poverty line in 2013 as compared to the national average of 15%. *Poverty Rate by Race/Ethnicity*, *supra*.

248. See U.S. CENSUS BUREAU, NEW MEXICO: 2010 CENSUS OF POPULATION AND HOUSING 10 tbl.8 (2012), <https://www.census.gov/prod/cen2010/cph-2-33.pdf> [https://perma.cc/3K8G-GZD4].

249. See U.S. DEP'T OF HEALTH & HUM. SERVS., SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., 2005–2010 NATIONAL SURVEYS ON DRUG USE AND HEALTH SUBSTANCE USE AND MENTAL DISORDERS IN SELECTED METROPOLITAN STATISTICAL AREAS (MSAs), tbl.1.3 (2012), [http://www.samhsa.gov/data/sites/default/files/NSDUHMetroBriefReports/NSDUHMetroBriefReports/NSDUH\\_Metro\\_Tables.pdf](http://www.samhsa.gov/data/sites/default/files/NSDUHMetroBriefReports/NSDUHMetroBriefReports/NSDUH_Metro_Tables.pdf) [https://perma.cc/NJR5-J65X] (indicating that 17.2% of Albuquerque residents and 15.9% of New Mexico residents use illicit drugs as compared to the national average of 14.7%); see also U.S. DEP'T OF HEALTH & HUM. SERVS., SUBSTANCE ABUSE & MENTAL HEALTH SERVS. ADMIN., 2010–2011 NATIONAL SURVEYS ON DRUG USE AND HEALTH MODEL-BASED ESTIMATES (50 STATES AND THE DISTRICT OF COLUMBIA) 3 tbl.1 (2012), <http://archive.samhsa.gov/data/NSDUH/2k11State/NSDUHsaeTables2011.pdf> [https://perma.cc/5Z9N-QTHK].

drug use identified in the course of prenatal care.<sup>250</sup> Almost 75% of infants whose mothers used heroin in pregnancy, whether or not the mothers initiated medication assisted treatment with methadone, required treatment for Neonatal Opioid Withdrawal Syndrome (NOWS), meaning that those babies were actually withdrawing from heroin or other opiates after their births.<sup>251</sup> NOWS is a condition usually treated with prolonged hospital stays in the normal well baby nursery and not the neonatal intensive care unit.<sup>252</sup> Dr. Hsi acquired extensive clinical experience managing the care of withdrawing infants, with up to 70 infants of the 3000 to 3300 infants admitted per calendar year requiring treatment for NOWS. He implemented clinical procedures and policies used to deliver care and medically treat infants until the withdrawal resolved and the infants could leave the hospital.<sup>253</sup>

The circumstances that brought baby Loretta and her family into care with FOCUS were similar to those encountered when Dr. Hsi became medical director of the newborn nursery in 1987. When he started, he treated a number of babies delivered to mothers with known or suspected prenatal alcohol and drug use, often confirmed by positive toxicology screening results.<sup>254</sup> Some of the infants, like Loretta, had prenatal exposure to heroin and underwent a lengthy hospitalization for treatment of NOWS.<sup>255</sup> The length of treatment often caused unbearable stress on the addicted parent who could not stay with the infant without going into withdrawal. Other infants had

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250. See Internal Hospital Memorandum, Andrew Hsi, Quality Improvement Study of Newborns and Women Presenting in Labor with Positive Urine Screens (1989) [hereinafter Hsi, Quality Improvement Study] (on file with author).

251. See Loretta P. Finnegan et al., *Neonatal Abstinence Syndrome: Assessment and Management*, 2 J. ADDICTIVE DISEASES 141, 141 (1975).

252. See, e.g., Internal Hospital Document, Children's Hospital of New Mexico, University Hospital Nursery Procedure: Neonatal Abstinence Scoring (Aug. 1993) (on file with author). The management of infants in the "normal" nursery reduced the numbers of nurses observing and scoring the infants, forged more consistent relationships with the parents to inform the medical staff about their readiness to assume care of the infant, and created greater interdisciplinary communication. See *id.* With transfer of infants to higher levels of care such as the Neonatal Intermediate Care Nursery, a larger pool of nurses provide care and the daily costs have increased because of the designation of care to a unit with monitored beds. See *id.*

253. See, e.g., Andrew Hsi, Neonatal Abstinence Syndrome (NAS) Scoring System, Excel Version 2.0 (adapted from Finnegan et al., *supra* note 251) (2009 form used in newborn nurseries at University Hospital) (on file with author).

254. Bebeann Bouchard & Andrew Hsi, The Organization of the Los Pasos Program Service Model 7-9 (unpublished manuscript) (on file with author) (describing the first seven years of program development in the School of Medicine at the University of New Mexico).

255. *Id.*



added medical complications such as prematurity, respiratory distress, and feeding problems that required longer hospital stays.<sup>256</sup>

When Dr. Hsi met with these parents, many had their own challenges that were keeping them from effective parenting, such as their own childhood trauma that affected their emotional resources and chronic health problems. Sometimes developmental delays arose and the infants experienced dysregulation from prenatal drug exposure, which included such symptoms as protracted inconsolable crying, jitteriness of arms and legs, feeding problems, and rapid behavioral state changes.<sup>257</sup> In the face of those challenges, parents often became angry and dysregulated themselves, feeling personally overwhelmed and guilty for their children's conditions.<sup>258</sup> The parents' feelings of anger, despair, and inadequacy could lead to emotional and physical neglect of the infant, progressing to physical abuse and continued household dysfunction. This meant that these children often quickly accumulated these additional ACEs. Infants like Loretta, who were born with an ACE and often quickly accumulated additional ACEs, together with their families, presented a crisis for the health care system dedicated to discharging healthy babies to stable homes. One of the first questions that Dr. Hsi attempted to answer from a public health perspective was the extent of the problem of prenatal alcohol and drug use in Bernalillo County and the state of New Mexico.

Working with the Substance Abuse Epidemiology Unit of the New Mexico Department of Health, Dr. Hsi helped to design a study to discover the rate of alcohol, tobacco, and drug use among women of childbearing ages in the state. The study, Substance Use by Childbearing Aged Females (SUCAF), conducted from 1990 to 1995, asked women presenting to health clinics for a pregnancy test to complete an anonymous survey and to consent to a test of part of the woman's urine specimen for toxicology testing.<sup>259</sup> The Substance

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256. *Id.*; Marylou Behnke & Vincent C. Smith, *Prenatal Substance Abuse: Short- and Long-term Effects on the Exposed Fetus*, 131 PEDIATRICS e1009, e1013 (2013); Tricia E. Wright et al., *Methamphetamines and Pregnancy Outcomes*, 9 J. ADDICTIVE MED. 111, 113 (2015).

257. *See* Luis B. Curet & Andrew Hsi, *Drug Abuse During Pregnancy*, 45 CLINICAL OBSTETRICS & GYNECOLOGY 73, 74-75 (2002).

258. *See id.* at 80.

259. *See* Bernie Ellis et al., *The Prevalence of Alcohol, Tobacco, Marijuana and Other Drug Use Among Women Seeking Pregnancy Tests in Public and Private Health Clinics in New Mexico 1* (1996) (unpublished manuscript) (on file with author).

Abuse Epidemiology Unit in Santa Fe reviewed the mailed surveys.<sup>260</sup> The State Lab Division in Albuquerque analyzed the urine specimens for toxicology testing.<sup>261</sup> Results for matched survey and urine specimens formed the data for reporting. A summary of the 1996 report described the 1995 sample as based on 2586 respondents with data collection conducted from February 1995 through May 1996.<sup>262</sup> The study protocol included:

- Laboratory testing that qualitatively screened for tobacco, marijuana, amphetamines, cocaine, sedatives (barbiturates), tranquilizers (benzodiazepines), PCP, heroin, and other opiates; and
- Testing standards established by the National Institute on Drug Abuse were followed to minimize the numbers of false positives.<sup>263</sup>

The research team reported the demographic characteristics of the women as follows:

- 68.0% identified themselves as Hispanic[;]
- 25.0% as White[;]
- 2.4% as American Indian[;]
- 4.6% as Black or “Other[.]”<sup>264</sup>
- 46.7% were single[;]
- 34.2% were married[;]
- 19.1% lived with their partners[.]<sup>265</sup>

260. *See id.*

261. *See id.*

262. *Id.* The study included clinic settings in urban and rural New Mexico. *Id.* at 2–3. The percentages by age of the women who agreed to participate were 35.9% less than age 20, 31.9% were 20–24 years, 17.0% were 25–29 years, and 15.2% were older than 30 years. *Id.* at 1. The women’s childbearing history found 64.5% reported at least 1 previous pregnancy (range 1 to 11), 57% had one or more children (range 1 to 9). *Id.* Almost half of the women, 47.6%, tested positive for pregnancy at time of survey. *Id.* Of those with household income information, more than half, 54.8%, had income of less than \$10,000 per year, and 40% did not give income data on their household. *Id.* Of the women in the sample, 48% had not graduated from high school, 49.8% graduated from high school, and 2.8% had graduated from college. *Id.*

263. *Id.* (“Positive amphetamine results were confirmed by gas chromatography to eliminate positives due to cross reactions to over-the-counter products such as pseudoephedrine.”).

264. *Id.* Of 1754 Hispanic respondents, 384 (22%) completed a Spanish language questionnaire. *Id.*

265. *Id.* A woman whose husband or partner used any of the substances had six times greater likelihood of using alcohol, marijuana, and other drugs compared to a woman whose partner did not use them. *Id.* at 3.

The women reported the following substance use and frequency:

- Alcohol in past month 38% (971), lifetime use 70.8%[:]
- Tobacco 40.8% (1040), lifetime use 54.2%[:]
- Marijuana 19.7% (501), lifetime use 39.4%[:]
- Cocaine 4.0% (102), lifetime use 12.6%[:]
- Methamphetamines 2.3% (58), lifetime use 9.2%[:]
- Hallucinogens specifically PCP 0.6% (16), lifetime use 6.0%[:]
- Tranquilizers and Sedatives 1.7% (43), lifetime use 5.0%[:]
- Inhalants by history only 0.2% (5), lifetime use 4.1%[:]
- Heroin and opiates 1.1% (29), lifetime use 3.1%[.]<sup>266</sup>

The intention to become pregnant caused a reduction in reported and positive urine testing.

*Current Substance Use by Pregnancy Status and Intention*<sup>267</sup>

	Alcohol	Tobacco	Marijuana	Other Drugs
Pregnancy Intended	20	33	13	5
Not Pregnant But Intended	37	45	19	9
Pregnancy Not Intended	41	43	21	10
Not Pregnant and Not Intended	54	47	26	9

In effect, women who intended to become pregnant had half of the reported use of alcohol, marijuana, and other drugs use compared to women with unintentional pregnancy.<sup>268</sup> Women with a negative pregnancy test who did not intend to become pregnant reported the highest use of all substances.<sup>269</sup>

Data specific to Bernalillo County, home to the large urban area of Albuquerque and the location of the University of New Mexico Hospital, correlated with the clinical experiences Dr. Hsi saw in the newborn nursery. The SUCAF study found that, among women in Bernalillo County, 37% of women obtaining a pregnancy test

266. *Id.* at 2.

267. *Id.* at 3.

268. *See id.*

269. *See id.*

reported they used alcohol in the month prior to testing, 40% used tobacco, 23% used marijuana, and 12% used other drugs including cocaine, methamphetamines, PCP, tranquilizers, inhalants, heroin, and other opiates.<sup>270</sup> During roughly the same years, estimates put drug use by pregnant women in the United States at 5.5% from the National Pregnancy and Health Survey, while the 1999 National Household Survey on Drug Abuse estimated 3.4% of pregnant women used illicit drugs,<sup>271</sup> both rates much lower than those in Bernalillo County.

From histories obtained from women delivering babies at the University of New Mexico Hospital, Dr. Hsi and other providers learned that women at delivery reported using drugs and alcohol before they had knowledge of their pregnancy. After having a positive pregnancy test, many women on their own, without drug or alcohol treatment, reduced or stopped their use. From clinical experience in the nursery at the hospital, 5% to 6% of infants delivered who had urine toxicology obtained for clinical care had positive urine drug screens.<sup>272</sup> The data from infants tested probably under-detected active alcohol and drug use among delivering women.<sup>273</sup> However, the findings of high rates of alcohol, tobacco, and drug use at time of pregnancy testing from the SUCAF study and then findings of much lower rates of positive infant and maternal urine drug screens at delivery fit with the data and clinical histories that suggested pregnant women decreased their use of alcohol and drugs as the pregnancy progressed.<sup>274</sup> Even if a reduction in use had occurred for women, alcohol and drug use earlier in the pregnancy still had the potential to alter the developing brains and subsequent intellectual and emotional development of exposed infants.<sup>275</sup>

In trying to determine how to best treat these babies and their families, Dr. Hsi observed that infants with prenatal exposure discharged from the nursery faced greater risks of returning to a family home with ongoing substance use disorders.<sup>276</sup> Parents with substance use disorders potentially had less capacity and knowledge

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270. *Id.* at 2–3.

271. Barry M. Lester, Lynne Andreozzi & Lindsey Appiah, *Substance Use During Pregnancy: Time for Policy to Catch Up with Research*, 1 HARM REDUCTION J. 5, (2004), <http://harmreductionjournal.biomedcentral.com/articles/10.1186/1477-7517-1-5> [<https://perma.cc/9B65-SW9V>].

272. Hsi, Quality Improvement Study, *supra* note 250.

273. *Id.*

274. *Id.*

275. Curet & Hsi, *supra* note 257, at 74.

276. *Id.* at 85.

to address the potential developmental delays from prenatal drug exposure and to act as effective parents.<sup>277</sup> Dr. Hsi identified multiple disturbing problems related to the systems of care interacting with the families of infants with prenatal alcohol or drug exposure.<sup>278</sup> The medical care system failed to recognize the risks of developmental delays and risks of child neglect and abuse that could also lead to mental health problems down the road.<sup>279</sup> In addition, the social services system did not know how to evaluate the importance of maternal recovery from drug use or the detrimental effects of continued substance use disorder on the ability of a parent to meet the emotional, developmental, and physical needs of a young vulnerable infant.<sup>280</sup> From the perspective of the medical systems, an infant with prenatal exposure either returned to the home of the mother who had used drugs or alcohol at some time in her pregnancy or went into foster care with foster parents who had little information or support to care for an infant with potential developmental delay risks.<sup>281</sup> The infant would receive an appointment in a general outpatient clinic or at a private medical practice for follow up to be completed by a medical team not involved in the infant's nursery treatment course or familiar with the developmental risks from prenatal exposure.<sup>282</sup> The mother's health status or drug treatment status rarely formed part of the discharge planning for disposition of the infant.<sup>283</sup> The health systems' disregard of the possible short and long term impacts of the mother's social condition seemed particularly inadequate based on risks for poorer infant and child outcomes.

Loretta, Christi, and Antonio presented as a family with multiple health and behavioral complications that standard health systems identified. However, standard health care typically involves the

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277. *Id.* at 81.

278. Andrew Hsi, Barbara Evans & Luis B. Curet, *The Effects of Prenatal Care on the Birth Measurements of Infants Affected by Prenatal Substance Use by Women of Low Socioeconomic Status 11–12* (unpublished manuscript) (on file with author).

279. See Barry M. Lester & Linda L. Lagasse, *Children of Addicted Women*, 29 J. ADDICTIVE DISEASES 259, 260 (2010).

280. See Deborah A. Frank et al., *Growth, Development, and Behavior in Early Childhood Following Prenatal Cocaine Exposure: A Systematic Review*, 285 J. AM. MED. ASS'N 1613, 1621 (2001).

281. See Egil Nygaard et al., *Longitudinal Cognitive Development of Children Born to Mothers with Opioid and Polysubstance Use*, 78 PEDIATRIC RES. 330, 334 (2015).

282. Personal experience of author, Andrew Hsi.

283. Curet & Hsi, *supra* note 257, at 86.

treating of one patient at a time,<sup>284</sup> such as the traditional model of a pediatrician who would treat Loretta and Antonio and separate adult medicine internists who would treat their mother, Christi, and grandmother, Rosa. That system lacks a multi-generational approach aimed at the entire family that recognizes the family's interrelated complex needs—and the extent to which the children's health and mental health outcomes are dependent on addressing their trauma and stabilizing their mother. For children like Antonio, who had experienced at least four ACEs of physical and emotional neglect, separation of his parents, substance abuse by his mother, and incarceration of his mother, his prior contact with health care providers was limited to acute illnesses or injuries. His family identified him as having difficult behaviors, and many of those behaviors came from the emotional and mental dysregulation that he experienced related to toxic stress. Christi, with her heroin and methamphetamine substance use disorders, did not have the capacity to consistently care for herself, much less alleviate toxic stresses for Antonio. Loretta's birth and her discharge to Rosa's home brought the entire family into the health care system with opportunities to organize care for each member of the family individually and as a whole. The family needed a comprehensive multi-disciplinary care team to prevent further ACEs for both baby Loretta and Antonio and to intervene as early as possible in the real and potential developmental challenges of both children. A multi-generational health system would also provide care to Christi to address her addictions and primary care needs and emotional and parenting support for Rosa, who was now caring for two children in her home.

Dr. Hsi, as director of the newborn nursery, recognized that the health care system needed to organize a programmatic preventive public health response to the care of infants with prenatal alcohol and drug exposure that was similarly upstream in its early intervention approach, multi-generational in its family-wide focus, and multi-disciplinary in its care. Collaborating with University Hospital and the University of New Mexico School of Medicine, he submitted a grant application to the Abandoned Infants Assistance Program in the Administration for Children, Youth and Families of the U.S. Department of Health and Human Services in 1990.<sup>285</sup> With the

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284. See Andrew Hsi, Address at the Department of Pediatrics Grand Rounds, Cornell University Weill Medical College, The History of the Los Pasos Program: Lessons Learned and Future Plans 33 (2006) (on file with author).

285. See Bouchard & Hsi, *supra* note 254, at 2 (explaining that Dr. Hsi submitted a grant application to the U.S. Department of Health and Human Services, Abandoned

announcement of an award, Dr. Hsi started the Los Pasos Program in the University of New Mexico Department of Pediatrics.<sup>286</sup> The service demonstration award provided the funding to support dedicated time of hospital and community based professionals to organize specific home based social support and early intervention services for infants with prenatal drug exposure.<sup>287</sup> The funding also supported dedicated time of social workers in the Family Preservation units in the New Mexico Children Youth and Families Department (CYFD), the state's child welfare agency, to coordinate their interventions to prevent child abuse after an infant delivered to a parent with untreated substance use disorders.<sup>288</sup> They were invited to meet with the other professionals in the newly funded Los Pasos program, including home care nurses, home based early interventionists, and the primary medical team.<sup>289</sup> The program formalized weekly interdisciplinary team meetings and formalized the process of contributions from all the disciplines involved.<sup>290</sup> When children had involvement from child protective services and went into foster care, the Children's Court appointed Guardian ad litem attorneys to represent the child's legal needs.<sup>291</sup> The attorneys attended the multi-disciplinary meetings and recognized the complex civil legal needs of some of the families served.<sup>292</sup> They recommended that Dr. Hsi initiate contact with the Law Clinic program of the University of New Mexico School of Law headed by Professor J. Michael Norwood.<sup>293</sup>

### C. The University of New Mexico Medical-Legal Alliance

Dr. Hsi and Professor Norwood founded the University of New Mexico Medical-Legal Alliance (MLA) in 1996<sup>294</sup> with a recognition

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Infants Assistance Administration for Children and Families). For more on the Abandoned Infant Assistance Program, see <http://www.acf.hhs.gov/programs/cb/resource/abandoned-infants-assist> [<https://perma.cc/HA5E-FN6V>].

286. Bouchard & Hsi, *supra* note 254 at 9 (describing the first seven years of program development in the School of Medicine at the University of New Mexico).

287. *Id.*

288. *Id.*

289. *Id.*

290. *Id.*

291. See N.M. STAT. ANN. § 32A-1-7 (2001) (describing the role of the Guardian ad litem in cases in New Mexico's Children's Courts).

292. Bouchard & Hsi, *supra* note 254, at 12.

293. See *generally Clinical Program*, U.N.M. SCH. L., <http://lawschool.unm.edu/clinic/> [<https://perma.cc/AL9U-VFKS>].

294. U.N.M. MED.-LEGAL ALL., *Report to the UNM School of Law and the UNM Health Sciences Center 1* (2015) (on file with author).

that the health of patients is not only influenced by health care, but also by their social situations.<sup>295</sup> The MLA operates with the understanding that the health of an individual is influenced by social factors, such as education, income, race, ethnicity, nutrition, and housing.<sup>296</sup> By addressing these “social determinants of health,” the MLA “works to eliminate barriers to [health and] healthcare affecting vulnerable populations due to financial pressures, family stability issues, housing difficulties and income maintenance due to disability and medical hardships.”<sup>297</sup> Generally, social determinants of health are those circumstances “in which people are born, grow, live, work, and age,”<sup>298</sup> and these factors critically influence health outcomes.<sup>299</sup> They are, in a large part, responsible for the health disparities around the world.<sup>300</sup>

These social determinants may in fact have legal solutions.<sup>301</sup> “Health-harming civil legal problems” can arise from social determinants of health,<sup>302</sup> and are defined “as social, financial, or environmental problem[s] that have a deleterious impact on a person’s health and . . . can be addressed through civil legal aid.”<sup>303</sup> According to one study, between fifty and eighty-five percent of patients at health centers have unmet health-harming legal needs.<sup>304</sup>

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295. Megan Sandel et al., *Medical-Legal Partnerships: Transforming Primary Care by Addressing the Legal Needs of Vulnerable Populations*, 29 HEALTH AFF. 1697, 1698 (2010) (discussing the importance of addressing legal needs as barriers to good health).

296. See generally Paula A. Braveman et al., *Broadening the Focus: The Need to Address the Social Determinants of Health*, 40 AM. J. PREVENTIVE MED. S4 (2011); Chén Kenyon et al., *Revisiting the Social History for Child Health*, 120 PEDIATRICS e734 (2007).

297. U.N.M. MED.-LEGAL ALL., *supra* note 294, at 1.

298. Marsha Regenstien et al., *Medical-Legal Partnership and Health Centers: Addressing Patients’ Health-Harming Civil Legal Needs as Part of Primary Care*, NAT’L CTR. FOR MED.-LEGAL P’SHP 1 (2015), <http://medical-legalpartnership.org/wp-content/uploads/2015/08/Medical-Legal-Partnership-and-Health-Centers.pdf> [<https://perma.cc/TF5S-2DMU>].

299. Lynn Hallarman et al., *Blueprint for Success: Translating Innovations from the Field of Palliative Medicine to the Medical-Legal Partnership*, 35 J. LEGAL MED. 179, 192 (2014).

300. Daniel Atkins et al., *Medical-Legal Partnership and Healthy Start: Integrating Civil Legal Aid Services into Public Health Advocacy*, 35 J. LEGAL MED. 195, 196 (2014).

301. Sandel et al., *supra* note 295, at 1698.

302. See Hallarman et al., *supra* note 299, at 183.

303. Regenstien et al., *supra* note 298, at 1.

304. Peter Shin et al., *Medical-Legal Partnerships: Addressing the Unmet Legal Needs of Health Center Patients*, GEIGER GIBSON/RCHN CMTY. HEALTH FOUND. RES. COLLECTIVE 1 (2010), <http://publichealth.gwu.edu/departments/healthpolicy/>



Medical-legal partnerships recognize that illnesses are linked to social and legal problems, which need to be addressed in a multidisciplinary way.<sup>305</sup>

Dr. Barry Zuckerman created the first medical-legal partnership at Boston Medical Center in 1993.<sup>306</sup> Dr. Zuckerman hired an attorney for the Pediatrics Department because he was “frustrated by watching his young patients fail to make clinical progress as a result of substandard housing, food insecurity, and other social determinants of health.”<sup>307</sup> Shortly after Dr. Zuckerman began the first medical-legal partnership in Boston, the University of New Mexico MLA was similarly borne of frustration on the part of Dr. Hsi and his colleagues, who were providing medical care and other services to infants who had been exposed to drugs prenatally, and their families. By integrating civil legal aid services into the healthcare settings, the MLA and other medical-legal partnerships screen for these health-harming legal needs<sup>308</sup> and provide legal interventions to combat the negative impact of social determinants of health.<sup>309</sup> The MLA addresses social determinants of health “at multiple levels through various sectors.”<sup>310</sup> While medical-legal partnerships differ in the populations served, legal areas of focus, and delivery models, they generally seek to provide legal assistance in healthcare settings, transform both health and legal institutions, and affect policy change.<sup>311</sup> Like other medical-legal partnerships, the MLA is premised on three key principles: “[T]he social, economic and political context in which people live has a fundamental impact on health; [that] these social determinants of health often manifest in the

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DHP\_Publications/pub\_uploads/dhpPublication\_60CE05B1-5056-9D20-3D0F917148 C7E929.pdf [https://perma.cc/X42M-4CYJ].

305. Heather A. McCabe & Eleanor D. Kinney, *Medical Legal Partnerships: A Key Strategy for Addressing Social Determinants of Health*, J. GEN. INTERNAL MED. S200, S200 (2010).

306. Randy Retkin et al., *Lawyers and Doctors Working Together—A Formidable Team*, 20 HEALTH LAW. 33, 34 (2007).

307. *Mission and History*, BOS. MED. LEGAL P'SHIP, <http://www.mlpboston.org/about-us/mission-and-history> [https://perma.cc/ED69-KR27].

308. See Shin et al., *supra* note 304, at 2.

309. Ellen Lawton et al., *Medical-Legal Partnership: A New Standard of Care for Vulnerable Populations*, in POVERTY, HEALTH AND LAW: READINGS & CASES FOR MEDICAL-LEGAL PARTNERSHIP 74 (Elizabeth Tobin Tyler et al. eds., 2011).

310. James Teufel et al., *Rural Health Systems and Legal Care: Opportunities for Initiating and Maintaining Legal Care After the Patient Protection and Affordable Care Act*, 35 J. LEGAL MED. 81, 95 (2014).

311. Lawton et al., *supra* note 309, at 74.

form of legal needs; and [that] attorneys have the special tools and skills to address these needs.”<sup>312</sup>

Because the prevalence of legal issues among low-income households is high,<sup>313</sup> medical-legal partnerships are becoming a critical component of care.<sup>314</sup> Today, the MLA is part of a wide network of medical-legal partnerships serving 262 hospitals and health centers across thirty-eight states.<sup>315</sup>

In light of the research on ACEs and their health impacts described above and the day-to-day experiences of those providers in serving low-income New Mexicans, both the legal and healthcare providers of the MLA recognize that children who have been experiencing ACEs may likely end up with significant mental health needs and on a path to involvement in the juvenile and/or criminal justice systems. With that understanding, the MLA takes a number of steps in an effort to disrupt that path and improve outcomes for the children and families it serves.

*1. Early Identification of Children Who Have Experienced ACEs and Multi-Disciplinary, Multi-Generational Healthcare and Early Intervention*

The FOCUS Program, the successor to the Los Pasos Program, started in 1990, involves a model particularly well-suited to intervene early to address ACEs because it targets children who have experienced at least one ACE right from birth, providing intensive services from those earliest years.<sup>316</sup> The ACE that these children are born with is “household substance abuse.” Their positive drug toxicology at birth is an objective measure indicating the presence of this ACE. Many, like baby Loretta, experience additional ACEs very early in life. These infants are referred to FOCUS either by a sister program at the University of New Mexico Hospital called the Milagro Program that serves pregnant women with substance abuse needs, by the University of New Mexico Hospital newborn nursery, by the child protection system, or by other hospitals and healthcare providers serving newborns.<sup>317</sup> This early identification and referral to FOCUS

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312. *Id.*

313. *See* discussion *supra* Part II.

314. Sandel et al., *supra* note 295, at 1699.

315. Regenstein et al., *supra* note 298, at 2.

316. *See* Bouchard & Hsi, *supra* note 254, at 14.

317. A report of referrals from 2014 to FOCUS indicated that 59% of referrals came from medical personnel at University Hospital and community hospitals in Albuquerque metropolitan area, 19% from child protective services, 16% from

in infancy triggers the healthcare team to examine whether there are any other ACEs or other forms of trauma affecting the child, and can allow for the deployment of resources to address those issues and their impact, often immediately following discharge from the hospital into primary care after birth.<sup>318</sup>

Research shows that “[e]arly intervention can prevent the consequences of early adversity . . . [while] later interventions are likely to be less successful . . . .”<sup>319</sup> The MLA uses multiple early interventions to help these FOCUS Program infant patients who have experienced ACEs and their families. Interventions include:

- a medical home that provides medical and behavioral health care to the child and his/her family members through a multi-generational approach by healthcare providers with expertise in providing care to children with prenatal drug exposure and substance abuse treatment to parents;<sup>320</sup>
- early intervention home-based program providing services under the Individuals with Disabilities Education Act<sup>321</sup> and the state of New Mexico’s FIT program<sup>322</sup> to address related developmental delays;
- integration of legal services into the primary care setting to address legal issues early to avoid full crises whenever possible.<sup>323</sup>

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parents, and 4% from other sources. Report on FOCUS Referrals (2014) (on file with author). The University of New Mexico FOCUS Program’s referral form can be found at <http://cdd.unm.edu/echfs/pdfs/FocusReferralForm.pdf> [<https://perma.cc/K9QQ-DTZL>].

318. See Bouchard & Hsi, *supra* note 254, at 14.

319. HARV. UNIV. CTR. ON THE DEVELOPING CHILD, IN BRIEF: THE IMPACT OF EARLY ADVERSITY ON CHILDREN’S DEVELOPMENT 2 (2007), <http://developingchild.harvard.edu/wp-content/uploads/2015/05/inbrief-adversity-1.pdf> [<https://perma.cc/NHE3-RM8W>].

320. See ROBERT GRAHAM CTR., THE PATIENT CENTERED MEDICAL HOME: HISTORY, SEVEN CORE FEATURES, EVIDENCE AND TRANSFORMATIONAL CHANGE 4 (2007), [http://www.aafp.org/dam/AAFP/documents/about\\_us/initiatives/PCMH.pdf](http://www.aafp.org/dam/AAFP/documents/about_us/initiatives/PCMH.pdf) [<https://perma.cc/6YDR-9QG8>]. The concept of a medical home evolved from concepts adopted by the American Academy of Pediatrics in 1967. *Id.* Key attributes of the medical home include the following elements: Personal Physician; Physician-Directed Medical Practice; Whole Person Orientation; Care is Coordinated and/or Integrated; Quality and Safety, Enhanced Access; and Payment Reform. *Id.* at 5.

321. See *generally* 20 U.S.C. §§ 1431–44 (2012).

322. See *generally* N.M. CODE R. § 7.30.8 (LexisNexis 2012).

323. See discussion *infra* Section III.C.2. The types of legal services provided by the University of New Mexico MLA are broad and include housing, public benefits, family law, disability law, immigration, and other types of legal advocacy, and aim to prevent full crises whenever possible. See discussion *infra* Section III.C.2.

The FOCUS Program has created this multi-generational, multi-disciplinary, upstream system of care for families like Loretta, Antonio, Christi, and Rosa. The prenatal exposure to heroin and methamphetamines for baby Loretta resulted in Loretta needing an extended hospitalization for treatment of NOWS. The stresses Christi experienced from the separation imposed by Loretta staying in an intensive care nursery overwhelmed her. She alleviated her overwhelming stress by relapsing to heroin use. When she met with her probation officer, she had a positive urine drug screen for opiates that violated her probation and she went to jail. The hospital called CYFD's child protective services division when Christi stopped coming to visit Loretta. After locating Christi in the jail, the CYFD investigator informed Christi that, unless Christi could find a responsible family member, CYFD would place Loretta in a foster home. That was when Christi turned to Rosa, the children's paternal grandmother, who agreed to let Loretta and Antonio live with her until Christi "could get herself back on her feet." Rosa hoped that her son, Eddie, the children's father, might become involved in Loretta's life but so far, Eddie had stayed away from her knowing that Rosa would start on him to "get well." As this story unfolded when the FOCUS home-based early intervention specialist and the social worker had a first intake meeting, it became clear that Rosa and Loretta needed much more than a set of handouts on how to parent.

The program's family-focused, multi-generational, multi-disciplinary medical home, now located in clinics of the Department of the University of New Mexico Family and Community Medicine, provides care to the entire family.<sup>324</sup> The FOCUS Clinics schedule multiple family members for appointments in consecutive time slots.<sup>325</sup> At Loretta's second appointment, the team met with Christi to discuss medication treatment for her heroin addiction and with Antonio to start organizing care for his identified behavioral problems, as well as with Rosa. One of the questions the medical team needed to start with was whether Antonio had a medical

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324. See *FOCUS*, *supra* note 18.

325. Peggy MacLean et al., FOCUS Program Weekly Appointment Schedules for North Valley Clinic and Southeast Heights Clinic (on file with author). Documents are published weekly in the University Hospital appointment system for appointments in FOCUS Clinics for parents needing primary care and medication-assisted treatment and for their infants and children needing primary care, acute care, and preventive care. *Id.*

condition that might explain or contribute to his behavioral problems. Some children with toxic stress have sleep disorders.<sup>326</sup> Antonio might have an underlying depressive disorder or psychosis that needed consultation from behavioral health or psychiatry. Christi's heroin addiction might respond to outpatient treatment with a replacement medication such as Suboxone, an FDA approved combination of buprenorphine and naloxone, that would reduce her physical craving to use opioid drugs and prevent withdrawal symptoms at the correct individualized dose.<sup>327</sup> As her history of medical care was limited to emergency room presentations, this visit could start organizing a comprehensive approach to standard adult preventive care such as immunizations and scheduling a Pap smear for cervical cancer screening. Care for Loretta could address infant preventive medical care including evaluation of Loretta's growth, administration of standard immunizations, and emphasis on her emotional and skill development by demonstration and anticipatory guidance.

With Rosa's agreement for home-based services, the social worker and an early intervention specialist started seeing Loretta in Rosa's home. They reported that Loretta had persistent hypertonia, a condition marked by abnormal control of how Loretta's brain could regulate and control the muscles of her neck, back, arms, and legs, as well as a deviation of her head and neck to her left side. These findings matched the abnormal neurodevelopment found among young children with prenatal opioid exposure.<sup>328</sup> This affected Loretta's ability to see objects and faces to her right and she uses her right hand and arm less than expected for an infant between two and six months. They requested that the occupational therapist on the FOCUS team go with them to see Loretta at home to conduct an evaluation and to offer Rosa and Christi specific exercises to improve Loretta's neck mobility. They discussed their plans in the weekly team meeting, and the physicians reinforced the plans for exercises and developmental stimulation in the medical visits.

A more troubling development came to their attention during home visits. After Christi relapsed and returned to jail, Rosa went to

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326. See Bruce D. Perry, *The Neurodevelopmental Impact of Violence in Childhood*, in TEXTBOOK OF CHILD AND ADOLESCENT FORENSIC PSYCHIATRY 226 (D. Schetky & E.P. Bendek eds., 2001).

327. See Nora D. Volkow et al., *Medication-Assisted Therapies—Tackling the Opioid-Overdose Epidemic*, 370 NEW ENG. J. MED. 2063, 2065 (2014).

328. Rod W. Hunt et al., *Adverse Neurodevelopmental Outcome of Infants Exposed to Opiate In-utero*, 84 EARLY HUM. DEV. 29, 34 (2008).

visit her. Christi explained that being back in jail was making her want to change her ways, and she insisted on taking both kids back from Rosa immediately upon leaving jail. Rosa was very concerned, as she knew Christi has not yet received the drug treatment she needed to stabilize and be able to parent safely. Rosa had no legal custody arrangement with the children, as the child protective services investigative social worker had closed CYFD's investigation after informally placing the children with Rosa. Rosa felt so concerned about Christi's threat to take the children that she has taken a leave from her job as an educational assistant to be at the house all the time. Antonio's school has also refused to talk through his suspensions and educational needs with Rosa, citing her failure to provide the school with any documents showing her custodial arrangement. The team agreed that Rosa needed legal help to feel secure in caring for Loretta and Antonio. At this time in Loretta's life, she has acquired three ACEs—household substance abuse, incarceration of a parent, and separation of her parents—with increased lifetime risks of poorer health, developmental, and educational outcomes due to experiencing toxic stresses. However, numerous studies indicate that supportive and responsive caregiver relationships early in life can prevent or reverse the damaging effects of toxic stress.<sup>329</sup> Rosa's consistent presence in Loretta's life and her growing attachment and recognition that Christi may take a long time to stabilize provides Loretta with a source of resilience.

## 2. *Integration of Legal Services into the Healthcare Setting*

After collaborating with Guardian ad Litem attorneys representing children in the child protective services system, Dr. Hsi worked with Professor Norwood of the University of New Mexico School of Law to integrate broader, more preventive civil legal services into the patient care provided by his program. Dr. Hsi and Professor Norwood recognized that children who have experienced trauma, such as the FOCUS Program's child patients, and who are born into households in which their mother is struggling with substance abuse could benefit not only from comprehensive medical and early intervention care, but also from a more holistic approach to their circumstances. They saw that incorporating legal services into the treatment approach would allow the team to address a broader array of social determinants of health, including health-harming legal needs, to provide more stability to the children and their families. By

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329. See HARVARD UNIV. CTR. ON THE DEVELOPING CHILD, *supra* note 319, at 2.

removing legal barriers, these children would have a better chance of achieving healthy development, improved mental health, and a path away from the juvenile and criminal justice systems.

Dr. Hsi and Professor Norwood knew from their respective medical and legal work that “at risk”<sup>330</sup> children rarely experience problems that fall into one definable category.<sup>331</sup> Instead, a child’s needs may be a combination of economic, social, and psychological needs.<sup>332</sup> To succeed, children need educational support, adult support and attention and love, proper nutrition, health care, a safe home, and healthy role models.<sup>333</sup> A child who needed services from multiple agencies would get case plans from each of those agencies and the parent(s) would then often be responsible for integrating and implementing all the different plans.<sup>334</sup> Dr. Hsi and Professor Norwood worked together instead to develop a collaborative model in which University of New Mexico law students, with faculty supervision, are integrated into the healthcare setting to provide legal services to FOCUS Program patients.

The University of New Mexico School of Law has a nationally recognized clinical law program, through which law students provide legal representation to low-income New Mexicans under the supervision of law school faculty.<sup>335</sup> Since the founding of the MLA, law school medical-legal partnerships have become more prevalent, and now fifty-one law schools have some form of medical-legal partnership education through courses, clinics, and externships.<sup>336</sup>

Law students and faculty in the MLA provide training to healthcare providers to assist them in identifying possible legal issues for referral to the Clinical Law Program. Students and faculty

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330. “At risk” children display a myriad of problems in their daily activities and interactions with others. See Charles Bruner, *Thinking Collaboratively: Ten Questions and Answers to Help Policy Makers Improve Children’s Services* 4 (1991), <http://files.eric.ed.gov/fulltext/ED338984.pdf> [<https://perma.cc/AD6H-JZ2A>].

331. *Id.*

332. *Id.*

333. *Id.*

334. *Id.* at 4–5.

335. See *Best Law Schools: Clinical Training*, U.S. NEWS & WORLD REP. (2016), <http://grad-schools.usnews.rankingsandreviews.com/best-graduate-schools/top-law-schools/clinical-training-rankings> [<https://perma.cc/RLF5-6FRR>] (ranking the University of New Mexico School of Law’s clinical program as one of the top ten in the nation in 2015); see also *School of Law Clinical Program Ranks Among Top in the Nation*, U.N.M.: SCH. L. (2014), <http://lawschool.unm.edu/news/archives/2014/march/clinic.php> [<https://perma.cc/8WEZ-TG34>].

336. See, e.g., *Partnerships*, NAT’L CTR. FOR MED.-LEGAL. P’SHP (2016), <http://medical-legalpartnership.org/partnerships/> [<https://perma.cc/B8RE-6DLY>].

develop trainings to help doctors, nurses, medical assistants, community support workers, social workers, and other healthcare providers to recognize that social determinants of health can adversely affect their patients' health and well-being.<sup>337</sup> These trainings also specifically educate the healthcare providers on the types of legal issues commonly affecting their particular patient population, providing them with the tools to screen for and refer patients to the Clinical Law Program for legal assistance.

Integrating legal services into the healthcare setting can help provide access to justice. Low-income households experience, on average, up to three legal needs per year.<sup>338</sup> Low-income people often do not receive legal help because they lack access to legal assistance. Fewer than one-fifth of legal problems facing low-income people are addressed by a private attorney or a legal aid attorney.<sup>339</sup> In fact, there is only one legal aid attorney for every 6415 low-income people in the United States.<sup>340</sup> Nationally, the Legal Services Corporation (LSC) has reported that LSC-funded organizations have to turn away one person for every one person to whom they are able to provide legal assistance.<sup>341</sup> Fully 944,376 people per year are turned away due to insufficient program funds.<sup>342</sup>

In New Mexico, many low-income individuals lack access to legal services. While efforts are being made to serve as many low-income individuals as possible,<sup>343</sup> more people are being turned away than are being helped. Data gathered from New Mexico Legal Aid and DNA-People's Legal Services showed that for every one client served, 2.3 clients were turned away due to insufficient funds, a rate substantially higher than the national average.<sup>344</sup> Especially in New Mexico, "great distances, limited transportation, language and cultural diversity, limited technology options and deep poverty all hinder access to

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337. See Atkins et al., *supra* note 300, at 200.

338. *Documenting the Justice Gap in America: The Current Unmet Legal Needs of Low-Income Americans*, LEGAL SERVS. CORP. 13 (2009), <http://www.americanbar.org/content/dam/aba/migrated/marketresearch/PublicDocuments/JusticeGainAmerica2009.authcheckdam.pdf> [<https://perma.cc/3PH8-BKGK>].

339. *Id.*

340. *Id.* at 21.

341. *Id.* at 9.

342. *Id.* at 11.

343. See, e.g., N.M. COMM'N ON ACCESS TO JUST., 2013 (INTERIM) STATE PLAN FOR THE PROVISION OF CIVIL LEGAL SERVICES TO LOW INCOME NEW MEXICANS, at xxvii (2013), <http://www.nmbar.org/NmbarDocs/forMembers/ATJ/2013StatePlan10042014.pdf> [<https://perma.cc/J5EL-UD6E>] [hereinafter N.M. COMM'N ON ACCESS TO JUST., 2013 INTERIM STATE PLAN].

344. *Id.* at 28.



needed legal services.”<sup>345</sup> This lack of access to legal services leads to acute health problems or exacerbation of health problems.<sup>346</sup> “Health is undermined at both an individual and population level when people do not receive the benefits or protections that safety net laws and programs afford them . . . .”<sup>347</sup> Expanding legal services in New Mexico is especially important because, as of 2006, 23% of New Mexicans live at or below 125% of the federal poverty guideline.<sup>348</sup> Yet, despite the need for legal services, funding at both the federal and state levels has been cut.<sup>349</sup>

The New Mexico Access to Justice 2013 State Plan emphasizes the need to expand collaboration with client groups, community groups, and social service providers.<sup>350</sup> The MLA provides a model for collaboration and access to justice, bringing legal services to low-income individuals in New Mexico’s largest metropolis, Albuquerque, and its surrounding areas. The FOCUS Program provides services to its patients both at the Family Practice Building adjacent to the main University of New Mexico Hospital, but also in community health clinics located right in the low-income neighborhoods where many of the program’s patients live.<sup>351</sup> Through the MLA, when patients go to see the doctor at their neighborhood health clinic, they can also see

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345. *Id.* at 44. Similar barriers to legal services have been identified in other parts of the U.S. See Paula Span, *The Doctor’s New Prescription: A Lawyer*, N.Y. TIMES: NEW OLD AGE (Mar. 21, 2013), [http://newoldage.blogs.nytimes.com/2013/03/21/lawyers-join-a-seniors-clinic/?\\_r=0](http://newoldage.blogs.nytimes.com/2013/03/21/lawyers-join-a-seniors-clinic/?_r=0) [<https://perma.cc/AAW2-P34W>] (noting the difficulties faced by the elderly when seeking medical and legal services).

346. Lawton et al., *supra* note 309, at 72.

347. *Id.* at 72–73.

348. N.M. COMM’N ON ACCESS TO JUST., *Report to the Supreme Court of New Mexico* 8 (2006) (on file with author).

349. N.M. COMM’N ON ACCESS TO JUST., 2013 INTERIM STATE PLAN, *supra* note 343, at 28–29.

350. *Id.* at 44.

351. For example, many of the MLA clients live in the Southeast Heights neighborhood of Albuquerque, where there are high poverty rates. In that neighborhood, 2000 data shows that 42% of families live below 18.5% of the federal poverty line, compared to 24.5% of families living under that poverty level in Albuquerque more broadly. Erin Phipps, *Southeast Heights Community Profile*, N.M. DEP’T OF HEALTH & ST. JOSEPH CMTY. HEALTH, 12 (2009), <http://www.bchealthcouncil.org/Resources/Documents/Southeast%20Heights%20Community%20Profile.pdf> [<https://perma.cc/F6CD-6YBF>]. The neighborhood is served by two of the MLA’s health clinic intake sites, the UNM Young Children’s Health Center, which restricts its services to the surrounding neighborhoods, and the UNM Southeast Heights Center for Family and Community Health. See *Southeast Heights Center for Family and Community Health*, U.N.M. HOSP., [http://hospitals.unm.edu/output/seh\\_fch.shtml](http://hospitals.unm.edu/output/seh_fch.shtml) [<https://perma.cc/AF4F-2JYL>]; *Young Children’s Health Center (YCHC)*, U.N.M. HOSP., [http://hospitals.unm.edu/children/young\\_childrens.shtml](http://hospitals.unm.edu/children/young_childrens.shtml).

the lawyer—or in this case, the law student—for a legal intake through the FOCUS Program. Through this model, the MLA provides medical and legal services for low-income people in one location<sup>352</sup> and helps to reduce barriers to legal services.<sup>353</sup> With onsite medical and legal services, FOCUS patient families have greater access to the resources and information they need before a crisis occurs that can spiral into juvenile or criminal justice system involvement, “such as child abuse, homelessness, or parental job loss.”<sup>354</sup>

Collaboration between the MLA’s healthcare providers and the clinical law program is important because health professionals are often not equipped to deal with their patients’ legal or social needs. Many health conditions with which children present can be traced to causes that are potentially remediable with enforcement of laws and regulations.<sup>355</sup> Often, legal issues presented by low-income clients can impact a medical diagnosis; therefore having a lawyer in a medical facility provides access to more holistic and preventative solutions to problems.<sup>356</sup> Medical professionals are not trained to understand, for example, “housing codes or the intricacies of food stamps or Medicaid eligibility.”<sup>357</sup> Dr. Hsi recognized that while pediatricians and other healthcare providers are often taught to consider family and social contexts of their patients, they may not have specific knowledge or access to resources to intervene effectively.<sup>358</sup>

Pediatricians like Dr. Hsi see the effects that poverty and trauma have on their patients, but they lack the training and knowledge to help their clients navigate legal systems.<sup>359</sup> Healthcare providers in the MLA understand the need to collaborate with attorneys to assist at-risk children living in poverty, including those like the FOCUS patients, who have experienced ACEs.<sup>360</sup> Medical-legal partnerships

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352. Monica Carmean, *Medical-Legal Partnerships: Unmet Potential for Legislative Advocacy*, 19 GEO. J. ON POVERTY L. & POL’Y 499, 500 (2012).

353. *Id.* at 505.

354. Barry Zuckerman et al., *Why Pediatricians Need Lawyers to Keep Children Healthy*, 114 PEDIATRICS 224, 226 (2004).

355. *Id.* at 224.

356. Carmean, *supra* note 352, at 501.

357. Zuckerman et al., *supra* note 354, at 225.

358. *Id.*

359. See Jane R. Wettach, *The Law School Clinic as a Partner in a Medical-Legal Partnership*, 75 TENN. L. REV. 305, 309 (2008).

360. *See id.*

also prevent crises.<sup>361</sup> Attorneys can provide legal assistance so that legal problems can be identified before they become medical crises.<sup>362</sup> The MLA can help improve the quality of life of the FOCUS patient families because legal assistance can help make issues that arise during treatment more manageable for patients and may even improve treatment.<sup>363</sup> For example, legal interventions to prevent a family from being evicted from their home can help to prevent homelessness. Families who are evicted often lose access to their medications and health insurance cards, which can disrupt medical care. Legal advocacy to prevent an eviction not only ensures continued access to critical belongings such as medications and health insurance cards, but also that a patient is not exposed to additional health issues that can arise from homelessness, thereby allowing the patient to focus on his or her medical treatment, rather than the emergency situation of finding housing.<sup>364</sup> In 2010, the American Medical Association recognized these advantages and adopted a policy to encourage physicians to form medical-legal partnerships “to help identify and resolve diverse legal issues that affect patients’ health and well-being.”<sup>365</sup>

The American Bar Association also formally endorsed medical-legal partnerships in 2007,<sup>366</sup> noting:

Just as the medical profession advocates preventive health care, so too by entering into these partnerships with health care providers, the legal profession can advance a ‘preventive law’ strategy for addressing clients’ social and economic problems and thereby improve clients’ health and well-being, especially those from low-income and other under-served communities.<sup>367</sup>

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361. See Carmean, *supra* note 352, at 507.

362. *Id.*

363. *Id.* at 508.

364. The authors have seen in their own work these types of housing challenges for low-income families, and the ways in which legal advocacy can help to prevent crises and ensure that medical treatment is more likely to continue without disruption.

365. Rebecca J. Patchin, *Report 15 of the Board of Trustees: Medical-Legal Partnerships to Improve Health and Well-Being* 1 (2010), <http://medical-legalpartnership.org/wp-content/uploads/2014/02/American-Medical-Association-MLP-Resolution.pdf> [<https://perma.cc/QNV2-YCJQ>].

366. See *Resolution 120A*, AM. BAR ASS’N. (2007), [http://www.americanbar.org/content/dam/aba/directories/policy/2007\\_am\\_120a.authcheckdam.pdf](http://www.americanbar.org/content/dam/aba/directories/policy/2007_am_120a.authcheckdam.pdf) [<https://perma.cc/P7A7-RWAX>]. The report accompanying the resolution notes that the first MLP in the country was established in 1993 at Boston Medical Center and that more than sixty MLPs had been established across the country by 2007. *Id.* at 3.

367. *Id.* at 4.

One of the key ways that the MLA helps disrupt the path of patients from ACEs to juvenile delinquency is through the deployment of legal services with a preventive approach. Legal aid services are often “aimed at crisis management . . . rather than preventive care services.”<sup>368</sup> Clients frequently wait to see a legal aid attorney until a problem is well-advanced and clearly presents as a legal crisis.<sup>369</sup> Legal aid is often akin to emergency health care, which focuses on crisis management, as opposed to primary care, which focuses on prevention.<sup>370</sup> Primary care doctors like Dr. Hsi and his colleagues focus on early detection and prevention of health crises, and are uniquely situated to identify legal issues early. In this way, the MLA is also able to focus its legal services on early detection and prevention of crises.<sup>371</sup> “By seeing families in a child health clinical setting, lawyers not only contribute to the preventive efforts of pediatricians, but also can introduce the practice of ‘preventive law,’ because they see families before a lack of receipt of public benefits or illegal practices lead to crises.”<sup>372</sup>

There is a wide range of unmet legal needs that can arise for patients of the FOCUS Program, including those identified through the I-HELP model developed by the National Center for Medical-Legal Partnership.<sup>373</sup> The I-HELP legal issue domains include “Income, Housing, Education/Employment, Legal Status, and Personal and Family Stability and Safety.”<sup>374</sup> Similarly, in regards to “Income” and “Housing,” Dr. Hsi and his colleagues see their patient families struggling without necessary income support and adequate housing to help them move beyond the crises situations they are facing. Legal advocacy to secure public benefits and housing assistance can address these challenges.<sup>375</sup> In regard to “Education,” some FOCUS Program children face barriers to accessing the services

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368. Dana Weintraub et al., *Pilot Study of Medical-Legal Partnership to Address Social and Legal Needs of Patients*, 21 J. HEALTH CARE FOR THE POOR & UNDERSERVED 157, 158 (2010).

369. *See id.*

370. *See* Sandel et al., *supra* note 295, at 1698.

371. *See* Lawton et al., *supra* note 309, at 74.

372. Zuckerman et al., *supra* note 354, at 226.

373. Regenstein et al., *supra* note 298, at 2.

374. Sandel et al., *supra* note 295, at 1698.

375. *See, e.g.*, 42 U.S.C. §§ 601–19 (2012) (providing for federal block grants to states for Temporary Assistance to Needy Families and administrative procedures for appeals of adverse decisions at § 610, through which attorneys can help to appeal denials or terminations of those benefits); 20 U.S.C.A. § 1437(f) (West 2015) (describing federal housing assistance available to low-income families).

they need in the special education<sup>376</sup> or Medicaid mental health systems.<sup>377</sup> Attorneys can help families navigate these systems and access the services to which they are entitled. Under the rubric of “Legal Status,” some families in the FOCUS Program fear separation due to the threat of deportation because one or more family members are undocumented. Attorneys can sometimes identify legal options in the immigration system to provide those family members with protection from deportation or some form of legal status, such as U-Visas for victims of trauma.<sup>378</sup> Through the University of New Mexico MLA, law students work under faculty supervision to provide these types of legal interventions.

In talking with Antonio and Loretta’s grandmother, Rosa, the healthcare team learned about an issue related to the category of “Family Stability and Safety.” They learned that Rosa did not have any formal custodial arrangement to legally recognize her care and decision-making on behalf of her grandchildren. Dr. Hsi and his colleagues have noted that many of their child patients in the FOCUS Program, like Antonio and Loretta, are living with caregivers other than their biological parents, particularly given that many of their parents cycle through incarceration and drug treatment programs. These non-parent caregivers, many of whom are grandparents, aunts, uncles, or other family members, often lack any legal custody arrangement in regard to the care of the children when they arrive at the doctor’s office with the children. This ambiguity in terms of the custodial situation can leave the children without a clear legal decision-maker for purposes of consent to medical treatment, school enrollment, or other areas of decision-making, which can be especially critical for children with prenatal drug exposure, who often have significant health and developmental needs. It also can leave the children vulnerable to being bounced among multiple caregivers without the designation of a legal guardian.

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376. Attorneys can assist parents in advocating for appropriate services under the Individuals with Disabilities Education Act at Individualized Education Program (IEP) meetings, as well as administrative due process hearings. 20 U.S.C. §§ 1414–15 (2012).

377. Medicaid’s Early and Periodic Screening, Diagnosis and Treatment mandate requires that children receive all medically “necessary health care diagnostic services, treatment, and other measures . . . to correct or ameliorate the defects and physical and mental illnesses and conditions discovered by the screening services.” 42 U.S.C.A. § 1396d(r)(5) (West 2013). If Medicaid-eligible children are denied access to medically necessary mental health services and treatment, there are administrative remedies, including a fair hearing process, which attorneys can assist families in pursuing. 42 C.F.R. § 438.402 (2012).

378. 8 U.S.C.A. § 1101(a)(15)(U) (West 2014).

A law student met with Rosa to conduct a legal intake at the same health clinic where she and the kids attend FOCUS Program medical appointments. They learned that, in addition to her difficulties being able to play a role in resolving Antonio's school discipline and other legal issues without any documentation of a legal custodial arrangement, she was worried that Christi would come to take the children upon release from jail before successfully overcoming her heroin addiction and while still too unstable to safely care for Loretta and Antonio. The law student flagged several potential opportunities for legal advocacy to help Rosa, and the law clinic began representing her to assist her in petitioning for a kinship guardianship of the children to help her establish a legal custodial and decision-making relationship, as well as special education advocacy to help secure special education evaluations and ensure that Antonio is not inappropriately suspended for behaviors related to his disabilities.

*a. Kinship Guardianship Advocacy*

In 2001, the New Mexico Legislature passed the Kinship Guardianship Act, underscoring that "it is the policy of the state that the interests of children are best served when they are raised by their parents," but when neither parent is able or willing to provide appropriate care, guidance, and supervision to a child, whenever possible, the child should be raised by family members.<sup>379</sup> The statute aims to:

- (1) establish procedures to effect a legal relationship between a child and a kinship caregiver when the child is not residing with either parent; and (2) provide a child with a stable and consistent relationship with a kinship caregiver that will enable the child to develop physically, mentally and emotionally to the maximum extent possible when the child's parents are not willing or able to do so.<sup>380</sup>

Pursuant to that Act, the law student was able to draft and file, under faculty supervision, a petition with the Family Court on Rosa's

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379. N.M. STAT. ANN. § 40-10B-2(A) (2001). The University of New Mexico MLA assisted in the development and drafting of this legislation, following the recognition that New Mexico had a gap in custody law that made it difficult for family members to assume legal custody of the non-biological children they were raising without formally becoming licensed foster parents, leaving those children without a designated legal caregiver.

380. *Id.* § 40-10B-2(C). Recognizing that many children in New Mexico are raised by caregivers who are not actually blood relatives, the legislature defined "kinship" to include a member of the child's tribe or clan or an adult with whom the child has a significant bond. *Id.* § 40-10B-3(C).

behalf demonstrating that the appointment of Rosa as a kinship guardian would serve the best interests of the children.<sup>381</sup> Attached to the petition, the student provided an affidavit from Antonio and Loretta's doctor from the FOCUS Program describing the children's unique health, mental health and developmental needs, and the trauma they had suffered. The petition made clear the importance of ensuring that Rosa had the legal custodial relationship to make medical and educational decisions for the children and to maintain physical custody of the children, for their stability, until Christi could receive the necessary drug treatment and be able to parent appropriately and safely. As required by law, the petition demonstrated that, as the children's paternal grandmother, Rosa was a qualified caregiver under the statute, that Loretta and Antonio had resided with her for more than ninety days, that Eddie was unwilling, and that Christi was unable to "provide adequate care, maintenance and supervision" for the children.<sup>382</sup>

At a hearing a few weeks later, the Family Court judge approved the petition and appointed Rosa to serve as the children's kinship guardian, with all of the legal rights and duties of a parent, except the right to consent to their adoption.<sup>383</sup> The law student's advocacy, with help from the FOCUS Program doctor, provided newfound stability for Loretta's family. This new legal relationship gave Rosa legal custody of the children. This allowed her to maintain custody of the children, regardless of Christi's wishes, until such time that Rosa and Christi agreed that Christi was in a position to effectively care for the children again or until Christi could demonstrate to the court a change in circumstances and that revocation of the guardianship would be in the children's best interests.<sup>384</sup> Moreover, her newly acquired rights and duties as a "parent" allow Rosa to make legal decisions for the children, including decisions related to their healthcare and education. The court's order gave Rosa the documentation she needed to provide to Antonio's school to be able to advocate regarding his school suspensions and special education needs.

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381. *Id.* § 40-10B-8(A).

382. *Id.* §§ 40-10B-3(C), (E); *see also id.* § 40-10B-8(B)(3).

383. *Id.* § 40-10B-13(A).

384. *Id.* § 40-10B-12.

*b. Educational Advocacy*

The law student's representation of Rosa also involved advocacy to secure special education evaluations for Antonio and to ensure that Antonio was not being inappropriately suspended for behaviors related to his disabilities. Antonio's FOCUS Program doctor, the law student, and Rosa worked together to craft a formal letter that the law student submitted to Antonio's school requesting special education evaluations. A copy of the court's order appointing Rosa as a kinship guardian was attached to the letter. The law student explained in the letter that, under special education law, the school should have recognized Rosa as a parent even before the court appointed her as a guardian because she was a grandparent acting in the place of a natural parent with whom Antonio lives.<sup>385</sup> The letter also explained that, regardless, Rosa can now be viewed as a "parent" for special education purposes because she was Antonio's legal guardian.<sup>386</sup>

Pursuant to the Individuals with Disabilities Education Act, schools should conduct evaluations within sixty days of receiving parental consent to determine whether a child has disability and to determine the educational needs of the child.<sup>387</sup> The law student's letter to the school requested that these evaluations be conducted sooner than the statutorily prescribed sixty-day timeline, as Antonio was undergoing yet another school suspension, this time for two weeks, entitling him to expedited evaluations under special education law.<sup>388</sup> The letter also explained Antonio had disabilities, including Attention Deficit Hyperactivity Disorder (ADHD) and symptoms of anxiety relating to the adverse childhood experiences he had suffered, and that the school was aware of his disabilities under the statute's legal definition of "basis of knowledge" because his teacher had expressed specific concerns about his behaviors and likely disabilities to the school principal.<sup>389</sup> The letter requested that the school convene a manifestation determination review meeting to discuss whether Antonio's behavior in school was in fact a manifestation of his disabilities, which would mean that he could not receive a two

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385. 20 U.S.C. § 1401(23)(C) (2012).

386. *Id.* § 1401(23)(B).

387. *Id.* § 1414(a)(1)(C)(i).

388. *Id.* § 1415(k)(5)(D)(ii).

389. *Id.* § 1415(k)(5)(B).



week suspension, a prohibited “change in placement” under special education law.<sup>390</sup>

In response to the letter, Antonio’s school conducted special education evaluations and determined that Antonio did suffer from ADHD and an anxiety disorder resulting from the trauma he experienced, both of which affected his ability to learn and qualified him for special education services as a student with the legal disability classifications of Other Health Impairment and Emotional Disturbance.<sup>391</sup> The school convened a manifestation determination review meeting comprised of Rosa (acting in the role of parent), Antonio’s teachers, and representatives from the school district,<sup>392</sup> to look at the connection between his behavioral problems and his disabilities. Antonio’s doctor from the FOCUS Program attended the meeting and detailed his team’s assessment of Antonio’s disabilities and their effect on his learning, and explained that Antonio’s behavioral problems related to his disabilities and that suspending him as punishment was not likely to be effective in addressing his behaviors. At the end of the meeting, the school agreed that Antonio’s behavior that resulted in his suspension was a manifestation of his disabilities, and therefore revoked the suspension. The school developed an Individualized Education Program to provide Antonio with special education and related services,<sup>393</sup> including social work and psychological services to help him cope with his anxiety in school and better manage his behavior and ADHD symptoms in the classroom.<sup>394</sup>

The advocacy by the MLA law student and the FOCUS Program doctor and team helped to educate Antonio’s school about the reasons for his challenging behaviors, including the trauma he had suffered and his related mental health needs and disabilities. This collaborative advocacy resulted in averting the instant suspension, as well as future suspensions, interrupting the “school-to-prison pipeline,”<sup>395</sup> through which Antonio’s behavior may have soon

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390. *Id.* §§ 1415(k)(E)-(F).

391. *Id.* § 1401(3)(A).

392. *Id.* § 1415(k)(1)(E)(i).

393. *Id.* § 1415(k)(5)(D)(ii); *id.* § 1414(d)(1)(IV) (providing that Individualized Education Programs include a statement of the child’s special education and related services).

394. *Id.* § 1401(26) (defining related services to include psychological and social work services).

395. Children with disabilities, especially those with social, emotional, and behavioral challenges like Antonio are at particularly high risk for entry into the school-to-prison pipeline, and effective implementation of special education law can

resulted not only in school disciplinary actions, but also involvement in the juvenile justice system. Moreover, the advocacy provided Antonio with the services he needed to learn the coping skills to function more effectively in school and to be able to make educational progress. Finally, the multidisciplinary advocacy of the MLA gave the school the information it needed to feel comfortable engaging Rosa in a parental role so that she and the school staff could work together going forward to address Antonio's unique educational needs.

### CONCLUSION

The historical trajectories of the children in the family coming into contact with the MLA and the FOCUS Program illustrate the challenges and opportunities to disrupt the path from childhood trauma to juvenile justice. Antonio, who experienced at least four ACEs, had started to demonstrate the impacts of toxic stress in his dysregulated behaviors at home and at school. His inability to meet the expectations for classroom behaviors at school set him on a path to school failure and continued conflict. His family did not have the capacity to help him regulate and he may present a continuing source of stress to the adults and to his infant sister, Loretta. The entry of Loretta into the FOCUS Program, which combines early intervention to address the potential developmental delays resulting from the use of drugs by Christi during her pregnancy, opens doors for Antonio to have behavioral supports. These supports take the form of parenting assistance to Rosa and Christi because increasing their capacity to help Antonio will help relieve stress in the home and thereby increase the energy they have to meet Loretta's needs. The stabilization of Rosa's custody of Antonio and Loretta provides a secure foundation for the safety and financial support of the children and allows Rosa to make the necessary educational and medical decisions for the children. The FOCUS Program also extended its support to the family to include a full medical evaluation for Antonio, the establishment of primary care to address any chronic health and mental health problems he may be experiencing, and timely referrals to behavioral health and psychiatric care that he needed to ameliorate the behaviors that he adopted in the face of toxic stress.

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play a role in interrupting that pipeline. See Yael Cannon et al., *A Solution Hiding in Plain Sight: Special Education and Better Outcomes for Students with Social, Emotional, And Behavioral Challenges*, 41 *FORDHAM URB. L.J.* 403, 417 (2013).

The family started with FOCUS for medical reasons, which led to access to legal assistance through the MLA, access that Rosa would not have found in the community. Rosa's security regarding her guardianship of Loretta allows her to act with confidence in the parenting role for Loretta. While she did not have the chance to intervene early in Antonio's life to prevent him from the chronic neglect he experienced, with a court order for guardianship, she can make decisions on behalf of both children and not worry that Christi or Eddie will take the children from her care before they are in a position to adequately care for the children. The MLA's legal advocacy also helped Rosa to secure necessary special education evaluations and services for Antonio, and to stop his cycle of suspensions, hopefully averting his eventual involvement in the juvenile justice system through the school-to-prison pipeline. The role of the MLA will help address the health and mental health needs related to the ACEs of the children, prevent further ACEs in the lives of both children, and allow Rosa, as the children's kinship guardian, to access the comprehensive early intervention and parenting support Loretta needs to reverse the effects of toxic stress and brain dysfunction from Loretta's prenatal exposure to drugs.

The main solutions provided to disrupt the path from childhood trauma to juvenile justice in Albuquerque and its surrounding area by the combined efforts of the MLA and the FOCUS Program include: (1) early identification of a young infant starting life with an ACE (e.g., substance abuse by a parent); (2) identification of additional ACEs as early in the child's life as feasible; and (3) connection of the infant and family to comprehensive, multi-disciplinary, multi-generational upstream medical, early intervention, and legal services. This type of health and justice approach not only prevents ACEs, but also prevents the effects of toxic stress such as developmental delays, emotional distress, and long-term personal, social, and learning problems.<sup>396</sup> The prevention of the progressive erosion of a child's capacity to withstand toxic stress requires safety and stability in the child's home environment. Through intervention in the cycle of ACEs leading to toxic stress and multiple disabilities of emotional regulation, learning, and social adaptation, the MLA has taken its work to an upstream location of stabilizing the family around the children most at risk and ensuring that the children's educational and mental health needs are met. These same children, due to their families' income challenges and dependence on low income housing

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396. Perry, *supra* note 326, at 226, 228.

stock, are at risk of social determinant causes of health disparities, which the MLA can help to address through related legal advocacy. Taking an upstream approach to stabilizing the family through formalization of custody arrangements and financial support and other forms of multidisciplinary advocacy may forestall the child's exposure to health-harming physical environments, while improving the psychosocial context of the family.

The FOCUS Program's clinical component, in addition to initiating a medical home for Loretta and Antonio, also provides primary care for Christi. The program's medical team has come to the realization that high quality care for prevention of ACEs must include prevention of further adverse health and mental health outcomes for all members of the family who may play a role in the well-being of the children in the home. To that end, after release from jail, Christi agreed to start treatment for her chronic opioid substance use disorder. The FOCUS Clinic, coordinating with the program's home-based early intervention team, drew Christi's attention to her increased availability to her children as a result of starting medication assisted treatment for opioid dependence. Christi observed that she felt much safer and strengthened her relationship with Rosa as she moved away from parenting under the influence. Seeing the developmental progress that Loretta made with her focused attention supported by the home-based early intervention team provided Christi with increased motivation to continue her treatment and to actively participate in counseling to strengthen her resistance to relapse. Rosa, who has not had primary care, accessed the FOCUS Clinic component to address her chronic depression and anxiety and, with medical support, formed a stronger relationship with Christi for the benefit of the children. Antonio faced the greatest challenges and, at first, acted out and felt confused that Christi had put so much attention on Loretta's needs. At one clinic visit, he asked Christi: "Why didn't you do treatment when I was a baby?" With continued medical support, Christi and Rosa began meeting together with Antonio's school and accepted referrals to after school programs, tutoring, and counseling. At his parent-teacher meeting, they learned that Antonio had not seemed so angry with other kids, had started playing soccer at recess, and began better following directions from his teacher since he began receiving special education services and had more involvement from his mother in his life. He has not had a fight or received in-school suspension, nor had any interaction with the school police officer. His improved behavior and regulation will reduce his chances of negative interactions with law enforcement and

entry into the juvenile justice system, as well as improve his chances of making academic progress.

With improvement in Antonio's school behaviors and performance and with appropriate special education services, intervention from the MLA and FOCUS Program changed his likely trajectory towards school failure and juvenile justice involvement. Students who have the advocacy of an interdisciplinary team coordinating with the student's school team that develops the Individualized Education Program receive positive attention geared to individual learning needs. A deeper understanding of the child's learning disabilities and emotional needs changes the perception of the child as a "trouble maker" to that of a student with special needs. The reassurance for the school team that the student's medical team will be accessible to them and the child and family reinforce the chances that the student will have greater stability and success in the school environment. Antonio's continued success in the school environment and his understanding of how to self-regulate when stressed paid off in better attention to the expectations of his teachers and in the peer social relationships he must manage successfully to avoid impulsively acting out and causing disciplinary actions at school.

Rosa's positive experiences supporting Antonio and Loretta in their receiving of ongoing home-based early intervention services helped Rosa understand how to support Loretta's emotional and intellectual development. Her steadying role in Loretta's life, Christi's progress in recovery, and stabilizing Antonio's behaviors at home all interacted to create a home environment that enables Loretta to acquire developmental skills. As Loretta progresses in her overall development, she has greater opportunities to avoid the withering effects of toxic stress, including ultimate entry into the juvenile justice system, and to manifest the skills to put her on track for full participation in formal education.

The authors have described how the MLA and FOCUS Program are a sustained, early, holistic, multi-generational, multi-disciplinary public upstream health and justice approach to address ACEs early and improve the trajectory for children who have experienced childhood trauma. Disruptive models of care require trusting relationships among multi-disciplinary providers, such as doctors, social workers, and lawyers, who have confidence in their shared work on behalf of families in the ways we have described. This building of trust and the long commitment to address and prevent ACEs provides an innovative approach to addressing childhood trauma and disrupts the tendency of professionals to isolate themselves in silos, helping them to contribute collaboratively to

improved outcomes for children and families. Long-term efforts must sustain continued evolution of concepts of how collaborations like the MLA work to achieve health and justice for children, families, and the communities around them.