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Improving the Health Care of Foster Children Throughout the US: Texas, a Case Example

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1 **Background: Health of Children in Foster Care**

2 *What is the state of foster care child health in the United States and Texas?*

3 The 400,000 children in the United States who have been exposed to the foster
4 care system annually comprise a high-risk, vulnerable, and potentially medically complex
5 pediatric population.^{1,2} According to the most recent demographic report by the US
6 Department of Health Human Services, the mean age of a child in foster care is 8 years
7 old. The gender distribution of children in foster care (CFCs) is 52% male and 48%
8 female. The majority of CFCs are white (44%) followed by black (23%) and Hispanic
9 (21%). Regarding placement setting, 45% are in nonrelative foster family homes, 32%
10 are in homes of relatives and next of kin, 7% are in various “institutions”, and the
11 remainder are in pre-adoptive homes, group homes, supervised independent living
12 programs, or trial home visits or are currently runaways.³

13 CFCs suffer in all facets of health. CFCs encounter physical health issues more
14 often than the general population does.^{1,4,5} But the majority of problems that CFCs
15 confront involve developmental, behavioral, and mental health. They often have
16 cognitive development delays and learning disabilities leading to academic challenges⁶,
17 which are in turn associated with significant psychosocial consequences later in life⁷.
18 Common psychiatric comorbidities including anxiety, depression, attention deficit
19 hyperactivity disorder (ADHD), and other behavioral problems also impact this group.
20 However, it is important to note that the degree to which these mental health disorders
21 affect these children has been debated, given heterogeneity between studies and
22 diagnostic criteria and discordance between informants, ie, caregivers and children.⁸ In
23 the adolescent period, higher risk of maladaptive behavior including substance abuse can

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24 exacerbate these mental health problems.^{9,10}.. Moreover, adolescents in foster care have
25 their own unique health problems including higher incidences of early childbirth and
26 sexually transmitted infections.^{11,12} As these problems are not appropriately addressed,
27 the aging-out process leads to worsening of these health outcomes and overall poor life
28 experience for these newly transitioned adults.¹³

29 In this case example, we focus on the health of CFCs in Texas for several reasons.
30 Texas is second only to California for having the most children in the foster care
31 system.¹⁴ According to the Annie E. Casey Foundation, Texas continuously ranks low
32 compared to the rest of the nation for overall child well-being and specifically 41st in
33 2018 for overall health.¹⁵ Texas also demonstrates great diversity in its composition of
34 CFCs. Of the 50,000 children under the conservatorship care of the Department of
35 Family and Protective Services (DFPS) in Texas, 52% are male and 42% are Hispanic,
36 31% white, and 20% black.¹⁶

37

38 *What is the current state of health care access for children in foster care?*

39 In addition to the relatively poor health of CFCs, several inherent barriers and
40 challenges exist in ensuring appropriate health care access for this population. Per the
41 American Academy of Pediatrics,¹⁷ such barriers include:

- 42 • Challenging, time-consuming, and crisis-oriented nature of the health care
43 approach for these children.
- 44 • Lack of care coordination, particularly lack of systems for communication and
45 information sharing among stakeholders.

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- 46 • Health care professionals' lack of familiarity and comfort with the foster care
47 system, welfare agency, and other related issues including consent and
48 confidentiality.
- 49 • Inadequate availability of health information and lack of continuity, given the
50 transient nature of the welfare system.

51 Various financial and legislative mechanisms have been implemented to attempt
52 to overcome these barriers. Medicaid acts as the primary federal and state-level financial
53 mechanism by which these children can access health care. Furthermore, under Titles IV-
54 B and IV-e of the Social Security Act, Congress appropriates additional funding annually
55 for the care of these children via welfare services.¹⁸ According to the President's Budget
56 for 2019, \$8.4 billion was allocated towards foster care and permanency in 2018 and an
57 increase to 8.7 billion dollars is expected in the 2019 federal budget for the Department
58 of Health and Human Services.¹⁹ State Medicaid and other federal mechanisms cover
59 most CFCs, but gaps remain.

60 One omission, particularly before the Affordable Care Act (ACA), is the care for
61 children previously in foster care who have now aged out of the system. Prior to the
62 ACA, the Chafee Foster Care Independent Act of 1999 represented the last major signed
63 federal legislation attempting to directly help adolescents who aged out of foster care.
64 Created in 1999, its primary achievement was to increase significantly the funding
65 support for states and give them more flexibility to offer independent living services for
66 children who have or will likely age out of foster care. Such potential services were broad
67 and varied and included educational assistance, residential services, and independent life
68 skills training. From a coverage standpoint the act gave all states the option to offer

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69 Medicaid to all CFCs on their 18th birthday up until their 21st birthday.²⁰ The ACA
70 attempted to further extend this support by requiring states to provide full Medicaid
71 benefits to all previous CFCs until 26 years old or up to 65 years old if household income
72 is less than 133% of the federal poverty line. Additionally the ACA attempted to improve
73 overall health care access to adolescents aged out of foster care by broadening mental and
74 behavioral health services and emphasizing and incentivizing integration of care through
75 various services including the medical home model.¹³

76 In Texas, the DFPS cares for CFCs through a combination of local, state, and
77 federal funds. In the most recently available report on child welfare financing in Texas,
78 for the 2014 fiscal year, \$1.4 billion was spent on child welfare in total, with half coming
79 from the federal budget.²¹ No specific data estimating health care expenditures for the
80 50,000 CFCs in Texas are available, though some rough estimates can be made based on
81 the data available. A 2016 Texas Health and Human Services (HHS) report estimated
82 that \$38 billion was spent on Medicaid in Texas in 2015 and that the average monthly
83 expenditure for a nondisabled child was \$242.²² However, given the increased health care
84 needs of the CFC population, this is likely a gross underestimate. Campbell et al
85 conducted an analysis of Medicaid expenditures for children who suffered from child
86 maltreatment and estimated that in 2009 the annual healthcare expenditure for a child
87 placed in foster care after child maltreatment was \$2920.²³ In 2010 Medicaid agencies
88 reported total health care expenditures of \$5.754 billion for all CFCs in the US.²⁴

89 In Texas, STAR Health represents the primary Medicaid managed care program
90 reserved for CFC health care spending. It is a “statewide, comprehensive healthcare
91 system that was designed to better coordinate and improve access to health care [for

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92 children in Texas foster care]... The main goal of STAR Health is to quickly give
93 children in state care the coordinated medical and behavioral health care services they
94 need.”²⁵ Most recent health care utilization data for CFCs in Texas via STAR Health
95 demonstrates that in 2014 there were 62.1 emergency department visits per 1000
96 member-months and 495.8 outpatient visits per 1000 member-months.²²

97 Over the past year significant legislative efforts had been made to improve the care of
98 these children with a particular focus on health care access. The catalyst that prompted
99 these reforms most likely arose from broad public scrutiny around alleged inadequacies
100 of the DFPS to protect and care for abused and neglected children.²⁶ The enacted Texas
101 Senate Bill 11 of 2017 (Table 1) represents the primary product of these efforts. Key
102 changes included a mandate that CFCs be evaluated by a health care professional within
103 3 business days of being removed from his/her previous home if one of the following
104 conditions is met: he/she is removed as the result of sexual abuse, physical abuse, or an
105 obvious physical injury to the child; or has a chronic medical condition, a medically
106 complex condition, or a diagnosed mental illness. It also requires notification by the
107 managed care organization to the health care professional regarding placement changes
108 within 24 hours following the placement change.²⁷

109 Apart from SB11, the 2017 legislative session produced additional enacted bills that
110 could have more indirect effects on CFCs in Texas. SB5 made DFPS autonomous and
111 separated it from Texas HHS, though in regards to responsibilities in health care
112 decisions, DFPS will be required to work with HHS. SB4 attempted to promote kin
113 placement by incentivizing relatives caring for CFCs with a stipend of \$350 per month.²⁶

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115 **Table 1. Highlights of Mandates in Texas SB11 2017 Aimed at Improving Health**
 116 **and Health Care Access of CFCs in Texas²⁷**

<u>Highlight</u>	<u>Summary of Specific Mandates</u>
Expansion of required prenatal care information	Section 6: Requires inclusion of important prenatal information in the child’s history including maternal alcoholic intake during pregnancy and history of fetal alcohol syndrome.
Inclusion of coercion to marry as a form of maltreatment	Section 7: Adds coercion to marry as a form of abuse and defines exploitation as an indication for placement into DFPS custody.
Assurance of proper transition of clinical care after change of placement	Section 14: Within 24 hours of a change in placement, DFPS or community-based contractor must inform the managed care organization and in turn the managed care organization must notify the primary care physician (PCP) of the change in placement “before the end of the second business day” from the time the managed care organization is made aware of the change. Section 25 further gives the managed care organization responsibility for ensuring proper transition and continuity of care when change in placement has occurred.
Requirement of a medical exam in specific circumstances following removal	Section 15b: Medical examination by a health care provider must be done within 3 business days of removal, if the child was removed because of abuse or physical injury or he/she has a “chronic medical condition, a medically complex condition, or diagnosed mental illness.”
Community-Based Care model	Section 18: Describes the “Community-Based Care” model defining the characteristics that make up an appropriate community-based contractor and the necessary obligations of both the DFPS and a future contractor in future contractual relationships.
Grants for faith-based community programs	Section 19: Creates a program permitting the governor to award grants to specific “faith-based community programs”

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<p>Evaluation of effectiveness of early intervention programs</p>	<p><u>Section 20:</u> Future evaluations should be done of early intervention programs in place</p>
<p>Requirement for comprehensive assessments every 90 days</p>	<p><u>Section 22:</u> Contractors under the Community-Based Care model in Section 18 must ensure that every CFC receiving therapeutic services by the contractor obtains a “comprehensive assessment... at least once every 90 days.”</p>
<p>Requirement for reception of appropriate health care screening services</p>	<p><u>Sections 24 and 30:</u> Both managed care organizations (Section 24) and “child-placing agency or general residential operation” (Section 30) caring for the CFC are responsible for ensuring he or she receives appropriate health care screening services.</p>

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120 **Improving the Health of CFCs in Texas Through Improved, Efficient, and More**

121 **Comprehensive Health Care Access**

122 *Access to comprehensive and cost-effective medical care through integration of care*

123 Given the lack of coordination and continuity that often prevents adequate health
 124 care for CFCs, a means to offer comprehensive and coordinated care is essential.

125 Integration of care via the medical home model, improved case management, and

126 facilitation of patient navigation ought to play a critical role. The medical home model

127 has become an important mechanism to achieve integration of care and offer optimal care

128 for CFCs. Per the American Academy of Pediatrics, the medical home model “ideally

129 offers high-quality, comprehensive, coordinated health care that is continuous over time,

130 compassionate, culturally competent, trauma informed, family centered, and child

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131 focused.”¹⁷

132 Although the literature on the utility of medical homes for CFCs is sparse,
133 evidence is accumulating to support its effectiveness. One program in Illinois has
134 demonstrated some promising outcomes. The statewide Healthworks model created in
135 2004 offered a coordinated delivery system of comprehensive health services for CFCs.
136 The Illinois state department of health created this model through building a network of
137 primary care physicians, lead agencies or local departments of health, and medical case
138 managers to ensure children receive the care they need. A retrospective cohort study
139 compared outcomes between children obtaining services from this model with Illinois
140 CFCs prior to the model, who had been receiving services through Medicaid. The
141 analysis demonstrated that the new Healthworks model was associated with higher
142 immunization rates, higher rates of well-child visits, and reduced rates of emergency
143 room visits for children with chronic conditions.²⁸ These outcomes indicate that such an
144 integrated health care model may be associated with improved clinical care. Such a
145 model focusing on integration of care represents an important example for future states
146 looking to offer coordinated and comprehensive health care for CFCs.

147 In Texas, the STAR Health statewide managed care plan has attempted to create a
148 medical home model for CFCs. The health plan offers two primary objectives: (1) to
149 provide an “integrated medical home where each foster care child has access to primary
150 care providers, behavioral health clinicians, specialists, dentists, and vision services” and
151 (2) to offer “care coordination services to help members understand benefits, get help
152 with appointments, find transportation assistance and identify local community
153 resources.” The plan offers specific mechanisms to help ensure integration of care. Such

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154 steps include the utilization of the Health Passport system, “a community health records
155 designed for foster care members and the STAR Health program”, and a focus on
156 achieving the critical timeline benchmarks including a Texas Health Steps checkup
157 within 30 days of enrollment.²⁹ Senate Bill 11, as previously mentioned, further enhanced
158 this continuity of care by mandating that certain CFCs obtain exams within “3 business
159 days” of placement change and that PCPs are made aware of placement changes within 2
160 business days.²⁷

161 There is limited data available that evaluate Star Health’s success in achieving the
162 medical home model. A process evaluation assessing key benchmarks such as the
163 number of CFCs with a health passport and the proportion of children hitting the
164 important exam timeline benchmarks would be an adequate start. Nevertheless, in a
165 recent report, Texas HHS summarized several indicators it used to evaluate the quality
166 and satisfaction of care for CFCs through the STAR Health program from 2014 data
167 (Table 2). In the report, HHS asserted, “children and adolescents in STAR Health
168 generally had excellent access to care in 2014 compared to the national Medicaid
169 population and Texas Standards.” However, HHS also noted that most indicators
170 measuring caregiver satisfaction of care remained below those for the national Medicaid
171 population ²².

172

173 **Table 2a and 2b: Key messages of “Star Health – Significant Quality Findings”²²**

174 **Table 2a: Quality of Care**

<u>Measure</u>	<u>Comparison to national standards*</u>
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<p>3.8 preventable admissions and 1.62 potentially preventable readmissions per 1000 member visits – the majority due to mental health or substance abuse related issues</p>	<p>Not commented</p>
<p>“Rate of members receiving at least 6 well-child visits in the first 15 months of life”</p>	<p>“middle third of the HEDIS benchmark and exceeded the HHSC Performance Indicator Dashboard Standard”</p>
<p>“well care visits for 3- to 6-year-olds”</p>	<p>“top 10% nationally”, exceeded HHSC standard</p>
<p>“well care visits for adolescents”</p>	<p>“top 10% nationally”, below HHSC standard</p>
<p>“Access to PCPs”</p>	<p>“top decile nationally”, “met or exceeded” HHSC standard</p>
<p>6 of 10 children or adolescents “appropriately tested for streptococcal pharyngitis when presenting for pharyngitis”</p>	<p>“between 10th and 32nd HEDIS standard”</p>
<ul style="list-style-type: none"> • Being prescribed “an appropriate medication” • Using “more asthma controller medications than quick-relief medications” 	<p>“very likely relative to national Medicaid population” but below HHSC standards</p>
<p>“Dispensed controller medications covering at least 75% of days in the measurement year”</p>	<p>“very likely relative to national Medicaid population”</p>

175 *HEDIS is the Healthcare Effectiveness Data and Information Set, a tool “used by more than 90% of Americans to measure
 176 performance on important dimensions of care and service”; it is a “registered trademark of the National Committee for Quality
 177 Assurance (NCQA).”³⁰ HHSC standard indicates standards of Texas Health and Human Services.
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 179
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183 **Table 2b: Caregiver satisfaction of quality and access to care**

<u>Measure</u>	<u>Comparison to national standard**</u>
Getting needed care – 72%	“Below the national CAHPS child Medicaid rate”, “similar to other Texas Medicaid programs”
Getting care quickly – 89%	“Below the national CAHPS child Medicaid rate”
How well doctors communicate – 91%	“Below the national CAHPS child Medicaid rate”
Rating a specialist “9” or “10”- 61%	“Below the national CAHPS child Medicaid rate” (report explicitly reports rate of 70%)

184 **CAHPS is the Consumer Assessment of Healthcare Providers and Systems” survey used by the Centers for Medicare and Medicaid
 185 Services to “reliably assess the experiences of a large sample of patients.”³¹

186

187

188 *Impact of trauma and toxic stress on CFCs’ health and the role of trauma-informed care*

189 Understanding trauma and encouraging trauma-informed care is critical to
 190 improve the health of CFCs. Exposure to trauma can accumulate in the lives of many
 191 children, especially CFCs. By definition all CFCs at some point in the life course have
 192 been exposed to some form of trauma, via adverse childhood experiences (ACEs) and
 193 toxic stress throughout their lives. ACEs vary and include abuse and neglect (physical,
 194 sexual, emotional), poverty, and parental factors including psychopathology, conflict, and
 195 stress. In addition to such experiences prior to removal, the uncertainty, disorder, and
 196 losses associated with removal add to this trauma that CFCs experience. Approximately
 197 50% of children in Texas have been exposed to at least one ACE.³² Exposures to ACEs
 198 have been associated with structural changes in the brain and poor mental and physical
 199 health outcomes.^{33,34}

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200 The accumulation of ACEs also leads to accumulation of toxic stress. Toxic stress
201 is a prolonged physiologic stress response that leads to an irregular and unregulated
202 exposure to stress hormones like cortisol.³³ Via cumulative neuroendocrine,
203 neuroimmunologic, and neurogenetic alterations, this unregulated exposure to hormones
204 impacts development of the brain, leads to structural changes in the brain, and in turn
205 influences function of numerous areas of the brain.³⁴ Moreover, behavioral
206 maladaptations further exacerbate these neurologic changes. Therefore, the combination
207 of biological changes and maladaptive behaviors ultimately effect significant and
208 negative consequences on the child’s physical, cognitive, and psychosocial health. Such
209 impacts on health affect the child not only in the short term, but often through
210 adulthood.^{33,34}

211 Given the clear impact that trauma has on the well-being of CFCs, strategies not
212 only to prevent and stop the traumatic exposures but also to mitigate the effects of trauma
213 through healing and rehabilitation and trauma-informed care are paramount to improving
214 their health ³³. Trauma-informed care is a far-reaching term that can be broadly defined
215 as a program or system which “realizes the widespread impact of trauma and
216 understands potential paths for recovery; recognizes the signs and symptoms of trauma
217 in clients, families, staff, and others involved with the system; and responds by fully
218 integrating knowledge about trauma into policies, procedures, and practices, and seeks
219 to actively resist re-traumatization.”³⁵

220 At the minimum, physicians and health care workers must become trained in
221 assessing and treating trauma and its related negative consequences. There are numerous
222 resources for health care workers to become educated in trauma-informed care. One

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223 example is the American Academy of Pediatrics' *Helping Foster and Adoptive Families*
224 *Cope with Trauma*.³⁶

225 It is not only the healthcare worker's obligation to offer trauma-informed care; in
226 order to ensure a safe home environment and secure relationships between caregiver and
227 child, a multidimensional approach involving case workers, caregivers, health
228 practitioners, and other important adults in the child's life is imperative. Caregivers
229 should learn how to care properly for trauma-exposed children so that they can identify
230 trauma-related triggers, foster stability in the household, create responsive and loving
231 relationships, and prevent worsening of the child's toxic stress and its negative effects.
232 The National Child Traumatic Stress Network's trauma-informed parenting workshop
233 attempts to educate caregivers about trauma-informed care and make them more
234 comfortable in caring for trauma-exposed CFCs. It has been demonstrated that caregivers
235 who undergo the workshop have improved knowledge and comfort in caring for children
236 with a history of traumatic experiences.³⁷ Focus has also been directed on child welfare
237 workers. In Washington state, a training program for case workers improved their
238 competency in using trauma-informed screening tools, identifying related mental health
239 needs, and connecting children with the appropriate evidence-based services.³⁸

240 Numerous trauma-informed services have been created and implemented
241 throughout the nation, but they have not been demonstrated to be equally efficacious. In a
242 systematic review, Leenarts et al assessed the literature's evaluations of different trauma-
243 informed psychotherapies.³⁹ The review discovered that cognitive behavioral therapy, art
244 therapy, child-parental psychotherapy, and multisystem strategies specifically targeting
245 aggressive and violent children offered the most benefit to children who have

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246 experienced trauma.³⁹

247 In regards to trauma-informed care for CFCs in Texas, the STAR Health plan has
248 implemented strategies to improve identification and mitigation of trauma-related
249 pathology in children. Every child newly placed in foster care requires a trauma screen
250 within 30 days of placement.⁴⁰ In Texas, CANS (Child and Adolescent Needs and
251 Strengths) has been the uniform statewide assessment tool following enactment of Texas
252 Senate Bill 125 in 2013. This bill required “children who are entering into DFPS
253 conservatorship to receive a ‘developmentally appropriate comprehensive assessment’
254 that includes a screening for trauma and mental health needs.”⁴¹ Originally the screen was
255 required within 45 days but now has been decreased to 30 days.⁴⁰ Furthermore, through
256 the behavioral health section of STAR Health, the plan offers several trauma-informed
257 treatment modalities: “Trauma-Focused Cognitive Behavioral Therapy (TF-CBT),
258 Trauma-Informed Care (TIC), Parent-Child Interaction Therapy (PCIT), Trust-Based
259 Relational Intervention (TBRI), and Child Parent Psychotherapy (CPP).²⁹ Lastly the
260 DFPS requires every new foster and adoptive parent to receive trauma-informed care
261 training prior to obtaining approval to care for foster care or adopted children and must
262 renew this training annually.⁴²

263

264

265 *Screening for mental health and neurodevelopmental disorders*

266 The exposure to trauma, ACEs, and toxic stress leads to an epidemic of mental
267 health disorders and neurodevelopmental disabilities (NDDs) that plague CFCs.
268 Estimates vary but approximately 50%-70% of CFCs suffer from such pathology^{8,33}.

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269 Therefore, in order to improve the health of CFCs, identifying and treating these
 270 disorders are imperative. The first step is to identify all children who are potentially
 271 afflicted with mental health illness and NDDs. Such a strategy ought to be sensitive yet
 272 cost-effective; not every CFC can or should have a complete psychiatric evaluation.
 273 Therefore, it is prudent to implement adequate screening mechanisms that will identify
 274 children who require further evaluation. Numerous screening tools have been created and
 275 validated for pediatric mental health pathology and NDDs. One resource, the California
 276 Evidence-Based Clearinghouse for child welfare, has reviewed and critiqued the validity
 277 and reliability of many of the widely used screening tools (Table 3).⁴³ Furthermore, some
 278 novel approaches have been made to conduct mental health screening successfully. One
 279 study evaluated a web-based tool used by parents to screen for mental health disorders; it
 280 reported that parents found the application easy to use and physicians felt that the tool
 281 normalized topics surrounding mental health and allowed for more efficient and
 282 comprehensive visits.⁴⁴

283

284 Table 3: Mental Health and Neurodevelopmental Screening Tools Evaluated by the
 285 California Evidence-Based Clearinghouse

<u>Screening Tool</u>	<u>Description/Purpose of Tool</u>	<u>Psychometric Rating*</u>
Ages and Stages Questionnaire, 3 rd edition (ASQ-3 TM)	“Assesses the developmental performance of children in the areas of communication, gross motor skills, fine motor skills, problem solving, and personal-social skills”	A

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Ages and Stages Questionnaire, Social- Emotional (ASQ:SE)	Assesses specifically social and emotional developmental performance	A
Family Map Inventories	Assesses child’s home and parental environment, “areas assessed have been identified as those that most impact child development,” “a valid screen for Adverse Childhood Experiences (ACES) in young children.”	A
Mental Health Screening Tool (MHST)	“screening tool intended to be used primarily by non-mental health professionals to rapidly screen children and youth ages 5 through adult who are being considered for out-of-home placement. The purpose of the instrument is to identify which children/youth should be referred for a mental health assessment.”	Not able to be rated
Modified Checklist for Autism in Toddlers (M- CHAT)	Two-stage tool that “screens for risk of autism spectrum disorder”	A
Modified Checklist for Autism in Toddlers, Revised, with Follow-Up (M-CHAT-R/F)	Similar but revised version of M-CHAT	B
Mood and Feelings Questionnaire (MFQ)	Screens for depression in children and adolescents, 33 item questionnaire	A

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Mood and Feelings Questionnaire-Short Form (MFQ-SF)	Screens for depression in children and adolescents; 13-item questionnaire	A
Mood Disorder Questionnaire (MDQ)	Screens for bipolar disorder	A
North Carolina Family Assessment Scale (NCFAS)	Examines “family functioning in the domains of Environment, Parental Capabilities, Family Interactions, Family Safety, and Child Well-being”	A
Patient Health Questionnaire for Adolescents (PHQ-9)	Nine-item questionnaire that screens for depression in adolescents	A
Pediatric Symptom Checklist-17 (PSC-17)	“screen for childhood emotional and behavioral problems including those of attention, externalizing, and internalizing”	A
Screen for Childhood Anxiety Related Emotional Disorders (SCARED)	“screen for childhood anxiety disorders including general anxiety disorder, separation anxiety disorder, panic disorder, and social phobia”	A
Strengths and Difficulties Questionnaire (SDQ)	General “mental health screening tool”	A
*Rating based on availability of published, peer-reviewed studies that “have established the measure’s psychometrics (eg, reliability and validity, sensitivity and		

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specificity, etc.). “A” means 2 or more studies have been published; “B” means one study has been published; “Not able to be rated” means no studies are available.

286

287 Nnumerous publications have evaluated the effectiveness of individual screening
288 tools or methods, but studies evaluating the public health impact or utility of mental
289 health screening in CFCs are lacking. One study did evaluate the consequences of the
290 statewide Massachusetts Medicaid pediatric behavioral health-screening mandate. It
291 discovered that the mandate was associated with increased rates of screening and mental
292 health-related outpatient visits.⁴⁵ This study substantiated the effectiveness of mental
293 health screening as it demonstrated that perhaps more screening led to more intense
294 evaluations of children who screened positive for possible mental health disorders.
295 Furthermore, if such a study can demonstrate success in a large and heterogeneous
296 population, these results could be confidently extrapolated to CFCs, who have higher
297 rates of mental health disorders than the general public.

298 Per the Texas Health Steps recommendations, every child in Texas ages 12-18
299 should undergo a mental health screen annually with one of their accredited tools
300 including PSC-17, PSC-35, Y-PSC, and PHQ-9.²⁹ As of September 2016, STAR Health
301 further requires that every child in foster care obtain a full mental health assessment via
302 the CANS tool within 30 days of placement,²⁹ as previously mentioned. Although the
303 CANS tool was created through an expert workgroup consisting of many stakeholders,⁴⁶
304 any published evidence of its validity seems to be lacking.

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306 *Access to mental health care*

307 Identifying children who have significant mental health care needs is an important
308 step but is obsolete if the children do not have access to adequate services and
309 interventions to help remediate such problems and allow the children to prosper. In a
310 review of the literature on efficacious mental health interventions in CFCs, specific
311 themes emerged. For example, appropriate yet judicious use of psychotropic medication
312 in the foster care population has been recently emphasized through the literature. High
313 incidences of concomitant use of multiple antipsychotics specifically⁴⁷ and psychotropic
314 medicines in general⁴⁸, without evidence of effectiveness or safety, have been
315 demonstrated.

316 Another theme arising from the foster care health literature is a transition from a
317 focus on residential-type services to a focus on home-based and community-based
318 services. Specifically the Centers for Medicare and Medicaid Services (CMS) has
319 emphasized utilizing home-based and community-based services as they believe such
320 interventions are more clinically and cost-effective than residential-type services.⁴⁹
321 Assessing 2 important federal initiatives to remediate mental health needs of children--
322 the Children Mental Health Initiative (CMHI) and the Psychiatric Residential Training
323 Demonstration Program (PRTDP)--CMS demonstrated that both initiatives are associated
324 with improved outcomes for children with mental illness. Based on such analyses, CMS
325 continues to offer a “core package” of traditional services including individual and family
326 therapy and medication management, and a supplementary package including “intensive
327 care coordination (often called wraparound service planning/facilitation), family and

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328 youth peer support services, intensive in-home services, respite care, mobile crisis
 329 response and stabilization, and flex funds.”⁴⁹

330 In assessing different outpatient mental health interventions for CFCs aged 0-12
 331 years, one systematic review highlighted and explored 10 different interventions that
 332 have been studied and demonstrated efficacy (Table 4).⁵⁰ Moreover, it emphasized
 333 several important gaps in the literature that need to be filled to determine the optimal
 334 mental health interventions for the foster care population. The gaps include effectiveness
 335 data, particularly in a randomized controlled trial setting; studies comparing different
 336 interventions; subgroup analyses given the heterogeneous nature of the foster care
 337 population and the need to determine for whom and in what scenario an intervention
 338 should be used; and lack of focus on outcomes related to adequate engagement of family
 339 and children, particularly enrollment and retention rates.⁵⁰

340

341 Table 4: Mental Health Interventions Studied by Hambrick et al⁵⁰

Attachment and Biobehavioral Catchup (ABC)	Kids in Transition to School (KITS)
Child Parent Psychotherapy (CPP)	Parent-Child Interaction Therapy (PCIT)
Fostering Healthy Futures (FHF)	Short Enhanced Cognitive-Behavioral Parent Training (CEBPT)
Incredible Years (IY)	Trauma-Focused Cognitive Behavioral Therapy (TF-CBT)
Keeping Foster Parents Trained and Supported (KEEP)	Treatment Foster Care Oregon for Preschoolers (TFCO-P; formerly Multidimensional Treatment Foster Care for Preschoolers)

342

343 While there are several possibly efficacious interventions for CFCs being utilized,
 344 there is a lack of literature on such interventions specifically targeting adolescents in
 345 foster care. Cognitive behavioral therapy is a ubiquitously effective intervention that has
 346 been shown to improve the symptoms in depressed and anxious adolescents.⁵¹ Another

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347 more intensive program, Multidimensional Treatment Foster Care for Adolescents
348 (MTFC-A), has been demonstrated to have wide-ranging impacts on mentally ill
349 adolescents ⁵². It involves placing adolescents into short-term foster homes positively
350 supported by well-prepared adults and accompanied by several interventions throughout
351 the home and school setting. The wide range of positive outcomes that have been
352 associated with this program include reduced rates of depression, externalizing and
353 internalizing behaviors, criminal arrests, and teen pregnancy ⁵².

354 In regards to mental health care access for CFCs specifically in Texas, Star Health
355 offers several behavioral health services, for children suffering from psychiatric and
356 substance abuse related disorder, and trainings for providers to practice such services.
357 Such services include “Trauma Focused-Cognitive Behavioral Therapy (TF-CBT),
358 Trauma Informed Care (TIC), Parent-Child Interaction Therapy (PCIT), Trust Based
359 Relational Intervention (TBRI) and Child Parent Psychotherapy (CPP).”] The plan also
360 offers intensive case management services and emergency behavioral health services. In
361 order to mitigate the excessive overutilization of psychotropic medications, Star Health
362 recommends that clinicians use the prescribing parameters outlined in the Texas DFPS
363 guide, Psychotropic Medication Utilization Parameters for Children and Youth in Foster
364 Care. The program moreover conducts periodic Psychotropic Medication Utilization
365 reviews or PMURs particularly for those patients that do not seem to follow the
366 parameters outlined by the guide ⁵³.

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369 **DISCUSSION**

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370 Given the barriers and gaps preventing adequate health of and health care access
371 for CFCs, we have identified certain domains and themes that can be emphasized to
372 improve access and overall health. By focusing on these domains, including optimizing
373 integration of care, directing attention to the impact of trauma and adversity on child
374 health, and improving both mental health screening and access to targeted treatments for
375 mental health pathology, we have identified 2 general ways for Texas and rest of the
376 United States to improve the health and health care access of CFCs.

377 First, many of the mechanisms described that have been implemented to improve
378 the health of, and health care access for, CFCs seem to lack evidence of quality
379 assurance. Specifically, there is limited data available to quantify the success of STAR
380 Health's initiatives to improve their health care goals for CFCs. For example, in regards
381 to achieving comprehensive medical care and integration of care for CFCs, data process
382 evaluations would ensure that the mechanisms being implemented are actually being
383 done. Studying such indicators like the proportion of CFCs with a health passport and
384 proportion of children hitting the important exam timeline benchmarks, as previously
385 mentioned, would offer assurance. Like Texas, other states should also ensure their health
386 care mechanisms focused on CFCs are being thoroughly evaluated.

387 Second, there are additional tools that could be implemented to further improve
388 the health and health care access for CFCs in Texas and throughout the US. For example,
389 in regards to ensuring access to comprehensive health care and integration of care, STAR
390 Health could augment or replace the health passport with an online mechanism to ensure
391 appropriate sharing of health-related information. Specifically, we would recommend the
392 creation of a single, portable, readily accessible yet confidential and HIPAA-protected

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393 website containing relevant demographic information and the medical and psychosocial
394 history of each CFC in Texas. Additionally, to improve the ubiquity of mental health and
395 trauma screening, easy-to-use and more efficient online modalities could be
396 implemented. Each state should explore similar additional strategies to enhance the health
397 of and health care access for CFCs throughout the nation.

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