Chapin Hall Issue Brief

COVID-19 and Child Welfare: Using Data to Understand Trends in Maltreatment and Response

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Introduction

Since March 2020, states across the country have taken extreme measures to prevent the spread of the coronavirus 2019 (COVID-19). Stay-at-home orders and deteriorating economic conditions have placed families under stress, while children home from school have diminished exposure to adults who might detect and report abuse and neglect. Some have expressed concern that these circumstances could heighten the risk of undetected maltreatment, and that an eventual return to school will result in a deluge of child maltreatment reports that could overwhelm child welfare systems. This brief summarizes efforts to respond to these concerns and provide empirical guidance to child welfare system leaders.

Research shows that large-scale economic crises can lead to financial loss, stress, and general hardship, which are risk factors for child maltreatment (Brooks-Gunn et al., 2013). Families experiencing poverty and economic insecurity have higher rates of child abuse and neglect (Boyer & Halbrook, 2011); county-level research corroborates this correlation (Courtney et al., 2005). At the same time, COVID-19–related closures have reduced the opportunities for mandated reporters (e.g., teachers, day care providers, mental health professionals, doctors) to observe children. Consequently, reports of child maltreatment from March to May 2020 were 40 to 60% lower than during the same period the previous year (Schmidt & Natanson, 2020).

While the sudden reduction in access to mandated reporters is unprecedented, seasonal and historical drops in child maltreatment reporting are common and primarily driven by school attendance patterns.

Education personnel (including teachers) are responsible for one-fifth of all reports "screened in" through child abuse hotlines, but only 11% of these calls are substantiated as child maltreatment (see Figure 1). Education personnel report the most cases of suspected maltreatment, but detect the smallest percentage of cases that reach the threshold for substantiation (U.S. Department of Health and Human Services, 2018). Additionally, historical seasonal fluctuations in reporting that occur in response to school attendance largely affect the rate of unsubstantiated cases. Typical drop-offs in reports relate to concerns that do not reach the threshold of substantiated maltreatment; teacher reports in summer months that do result in substantiation remain steady. This suggests that in the current context, the number of reports that result in substantiated maltreatment is unlikely to fluctuate due to reduced teacher/school contact.

Thus, it is unlikely that the dramatic reduction in hotline reports due to school closures will produce a rebound of substantiated maltreatment. Instead, those concerned with the well-being of children should shift their focus to the community drivers and economic stressors that elevate the risk for child maltreatment. Rather than focusing on how to increase mandatory reporting, efforts should be redirected to support and stabilize families to prevent child maltreatment. Understanding the factors that elevate risk of harm to children during economic downturns and periods of social isolation can help child welfare systems to formulate adaptive responses to family needs.

Understanding Shifts in Detection and Response to Child Maltreatment

The current child protection system is designed to detect child maltreatment through mandated reporting laws (Sedlak & Ellis, 2014). This mandate requires specific professionals who routinely interact with children to report suspected child abuse and neglect to child welfare hotlines. Given that COVID-19–related closures have diminished many professionals' access to children, child welfare agencies need alternative strategies to protect vulnerable children through enhanced support to their families.

Our approach to inform these strategies is guided by the following research questions:

- What do patterns of reporting and substantiation in previous years tell us about what to expect during COVID-19?
- What is the relationship between community-level stressors and reporting of child abuse and neglect?
- What projection tools can states and counties use to inform preventive service needs and plan for the future after COVID-19?

We hypothesize that the economic conditions and stress associated with COVID-19 are impacting the phenomenon of child maltreatment (i.e., abuse and neglect) while the detection of child maltreatment (i.e., hotline calls) has dropped, which limits the ability of the child protection system to respond appropriately with investigations and/or service referrals.

By leveraging publicly available data to examine historical and seasonal patterns in reporting of child maltreatment, we can evaluate trends in *detection*.

Analyzing county-level data on economic and other stressors in combination with historical child protection data will better inform our understanding of the impact of the current economic conditions on the *phenomenon* of child abuse and neglect. This will allow child welfare agencies to plan for fluctuations in their *response* to reported child maltreatment.

Information produced by these analyses can be used to build dynamic, data-driven tools to help child welfare system leaders project changes in detection and adapt their responses to unprecedented conditions.

Methods

The University of Chicago School of Social Service Administration-Chapin Hall Institutional Review Board (IRB Protocol No. 20-0755) approved this study. We obtained data from the following sources:

- **Hotline reports.** Seven years of publicly available data (FFY 2012–FFY 2018) from The National Child Abuse and Neglect Data System (NCANDS), a voluntary data collection system that gathers information from all 50 states, the District of Columbia, and Puerto Rico about reports of child abuse and neglect. NCANDS was established in response to the Child Abuse Prevention and Treatment Act of 1988 (Public Law 93-247). The NCANDS Child File dataset consists of child-specific data on all "screened in" reports of maltreatment to State child protective service agencies.[1]

- **Economic stressors.** Monthly county unemployment rates from the Bureau of Labor Statistics Local Area Unemployment Statistics, annual percentage of children below poverty level by county from the American Community Survey from the U.S. Census Bureau, and annual number of births by county from the National Center of Health Statistics.

- **Child maltreatment allegations.** Statewide Automated Child Welfare Information System (SACWIS) data on screened-in reports (e.g., child abuse and neglect hotline "intake events") in one Midwestern county from July 2015 to June 2020, aggregated by month, including allegation and reporter source.
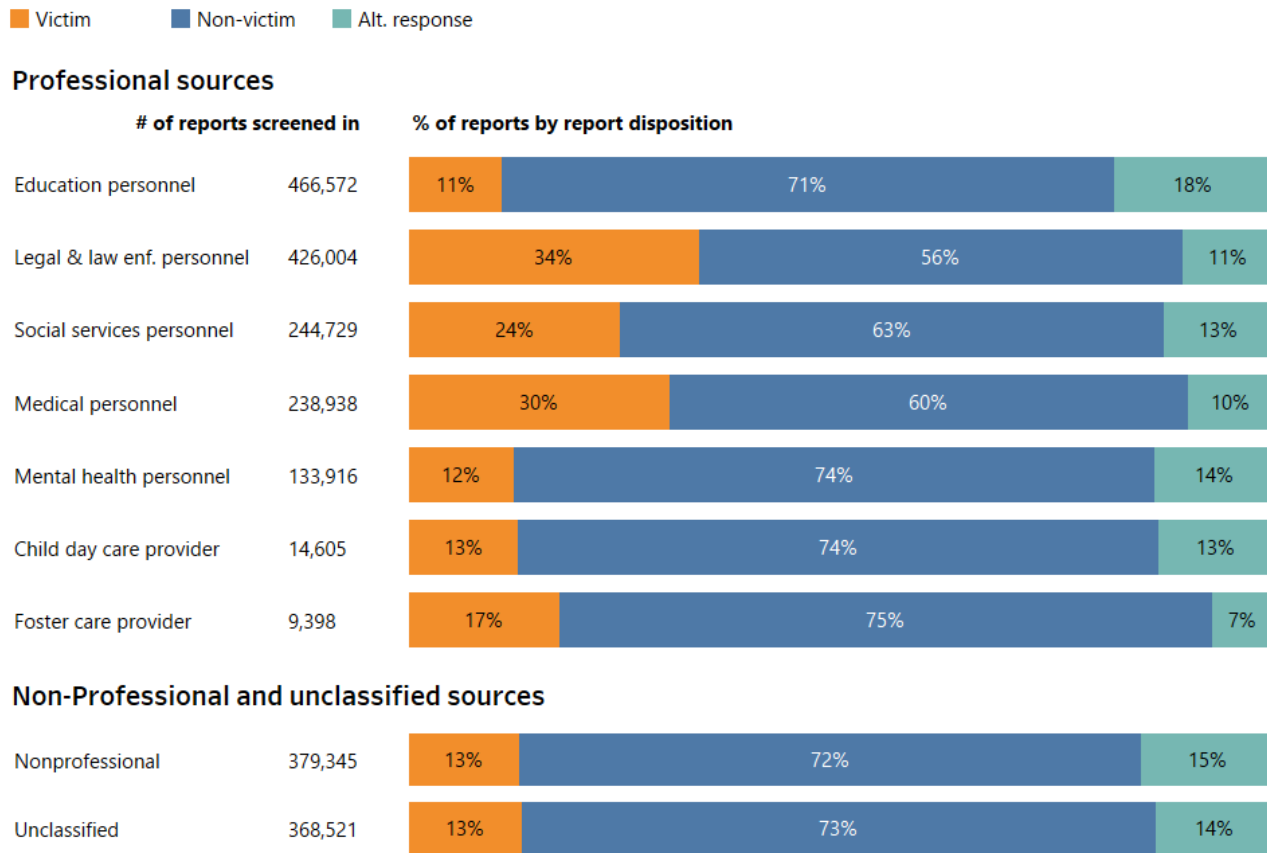
Using these data sources, we performed descriptive and multilevel time-series analyses to answer questions about historical trends and the relationship between community-level stressors and child abuse and neglect. The results from these analyses were incorporated into a dynamic forecasting tool (i.e., *Latent Event Simulator*) that can be used by child welfare agencies to plan system responses.

Findings: Impacts of COVID-19

What do patterns of reporting and substantiation tell us about what to expect during COVID-19?

Using monthly data from NCANDS FFY 2018, we examined screened-in child maltreatment hotline reports by report source, report disposition, and report month to understand the detection and substantiation of child maltreatment (see Figure 1). Among professional sources, education personnel made the most reports (n = 466,572), followed by law enforcement (n = 426,004), social service personnel (n = 244,729), medical personnel (n = 238,938), mental health personnel (n = 133,916), child day care providers (n = 14,605), and foster care providers (n = 9,398). Of these mandated reporters, education personnel, mental health personnel, and child day care providers had the lowest percentage of identified victims (11–13%) while law enforcement and medical personnel had the highest percentage of identified victims (30–34%).

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[1] "Screened in" reports are hotline calls that are assigned for follow-up, either with an investigation or a referral to alternative response. "Screened out" may receive a service referral but no further involvement by the child welfare agency.

Figure 1. Screened-in reports by report source and report disposition, FFY 2018

Legend: ■ Victim ■ Non-victim ■ Alt. response

Professional sources

	# of reports screened in	% of reports by report disposition		
Education personnel	466,572	11%	71%	18%
Legal & law enf. personnel	426,004	34%	56%	11%
Social services personnel	244,729	24%	63%	13%
Medical personnel	238,938	30%	60%	10%
Mental health personnel	133,916	12%	74%	14%
Child day care provider	14,605	13%	74%	13%
Foster care provider	9,398	17%	75%	7%

Non-Professional and unclassified sources

Nonprofessional	379,345	13%	72%	15%
Unclassified	368,521	13%	73%	14%

Source: US Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. National child abuse and neglect data system (NCANDS) child file, FFY 2018 [dataset]. http://www.ndacan.cornell.edu. Updated 2020. Accessed February 16, 2020.

Notes: Data exclude 1) reports from states whose report source of "other" or unknown or missing exceeded 25% for all reports and 2) reports with an overall report disposition of unknown or missing. Non-professional includes Other relatives, Parents, Friends & neighbors, Alleged victims, and Alleged perpetrators. Unclassified includes: Other, Anonymous sources, and Unknown or missing.

Reporting by education personnel was the least consistent over time and the most likely to show seasonal variation associated with school openings and closings (see Figure 2). These historical/seasonal trends suggest that hotline reports typically return to baseline rates annually when children return to school each fall rather than overcorrecting with seasonal surges.

Figure 2. Screened-in CPS reports by report source and report month, FFY 2018

Screened-in reports by report source and report month, FFY 2018
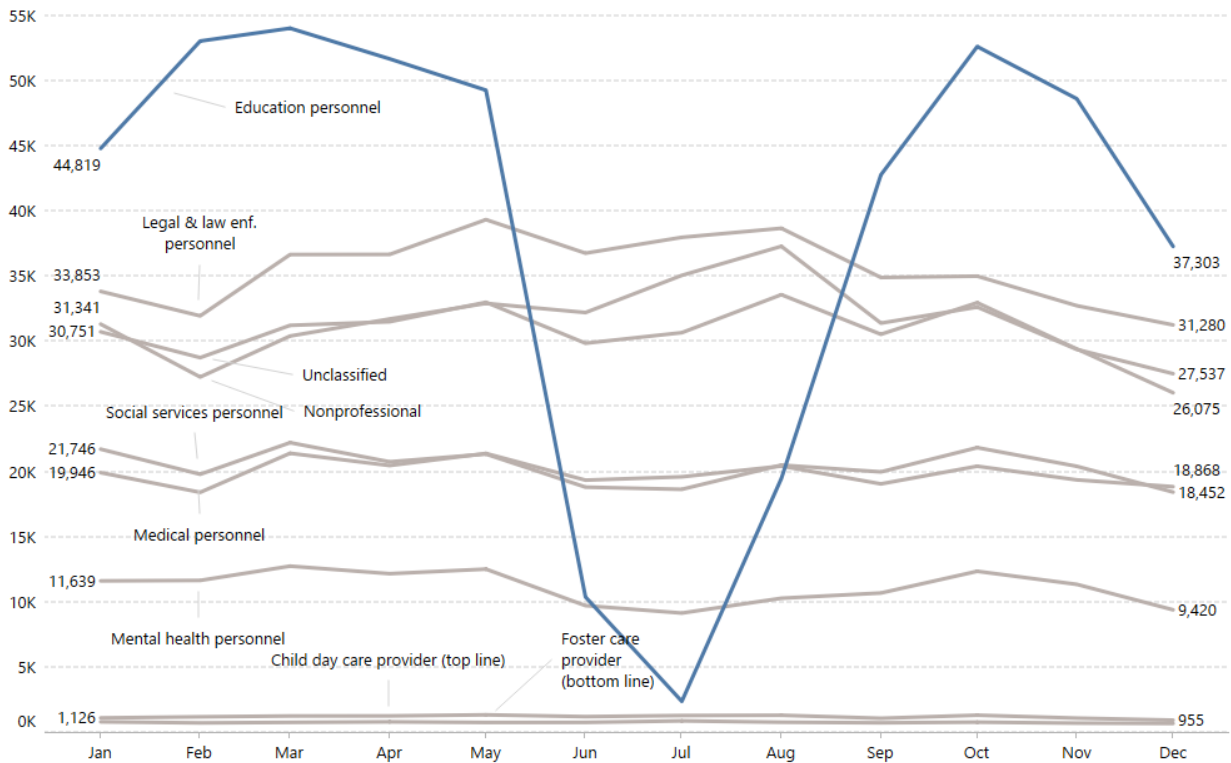
Source: US Department of Health and Human Services, Administration for Children and Families, Administration on Children, Youth and Families, Children's Bureau. National child abuse and neglect data system (NCANDS) child file, FFY 2018 [dataset]. http://www.ndacan.cornell.edu. Updated 2020. Accessed February 16, 2020.

Notes: Data exclude 1) reports from states whose report source of "other" or unknown or missing exceeded 25% for all reports and 2) reports with an overall report disposition of unknown or missing.

What is the relationship between community-level stressors and reporting of child abuse and neglect?

To more fully explore the potential impact of COVID-19 on the changing rates of child abuse and neglect, we conducted multilevel time series analyses in two counties. The results displayed here are from one urban Midwestern county in a state-administered child welfare system. We used time series analyses to understand how current external stressors related to COVID-19, such as the rise in unemployment, may be linked to the detection of child abuse and neglect. We used 7 years of NCANDS data (FFY 2012–FFY 2018) along with other publicly available county-level data on other factors that correlate with child maltreatment. We tested relationships between county-level unemployment rate, percentage of children below the poverty line, number of births, and two distinct child maltreatment outcomes: one comprised of reports consisting of only child neglect ("neglect only") and one consisting of all other combination of reports such as abuse only or abuse and neglect ("all other"). We used multilevel time series analysis to predict variation in the two distinct types of child maltreatment over time. Models adjusted for seasonal variation and specific county-level indicators associated with maltreatment (seasonal variation and monthly unemployment rate at level 1 and annual percentage of children below poverty and number of births at level 2). Results indicate that community-level stressors are associated with fluctuation in child maltreatment reports, and that associations are stronger for "all other" reports than for "neglect only" (see Figure 3).

Figure 3. Multilevel time series analysis predicting the number of all other child maltreatment reports in one urban Midwestern county
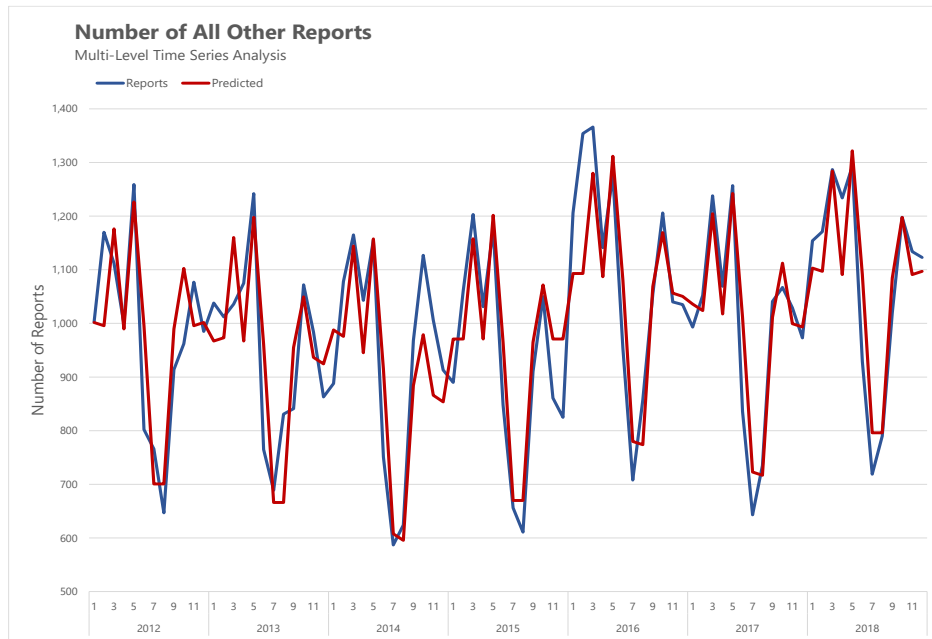

Table 1 displays the results of the multi-level time-series analysis. Monthly county-level unemployment rates were positively and significantly associated with "all other" reports but not for "neglect only." The coefficient listed for unemployment is interpreted to mean that a 1% increase in the monthly unemployment rate would be associated with an increase of 61 screened-in reports for "all other" (abuse and neglect) types of alleged maltreatment. This suggests that the recent rise in unemployment due to COVID-19 is increasing the risk of child maltreatment, and that additional community-based supports might be needed to address concrete economic needs. To the extent that the relationship between unemployment and maltreatment is mediated by other factors (e.g., mental health, isolation, stress), it will be important to consider the implications for prevention. The annual county-level percentage of children below the poverty line and the number of births also predicted "all other" reports. However, the poverty indicator (an annual measure) did not have an impact on monthly fluctuation in a given year. The impact of the number of births was minimal.

Table 1. Multilevel time series analysis predicting child maltreatment reports in one urban Midwestern county

|	Coefficients	
	Neglect only reports	**All other reports**
Intercept	654.8	413.1
Unemployment rate	23.9	**61.0***
Seasonality		
Adjustment 1	50.0*	186.9*
Adjustment 2	125.8*	230.7*
Adjustment 3	2.5	-294.8*
Adjustment 4	57.2*	106.8*
Community factors		
Percentage of children below poverty	**-41.3***	**-80.9***
Number of births	0.01	**0.03***

*p<0.05

What projection tools can states and counties use to inform preventive service needs and plan for the future after COVID-19?

Latent Event Simulator tool application

Coefficients from multilevel time series analyses were integrated into a projection tool, called the *Latent Event Simulator*. The simulator produces (1) estimates of the changing rates of abuse and neglect based on county-level factors; (2) adjustments for changing exposure to reporters of child maltreatment; and (3) projections of unseen events that may require child welfare system response. Figure 4 displays a sample scenario, using data from the same urban Midwestern county, to illustrate the rates of hotline calls and the output of the tool, predicting the number of anticipated report events for "all other" types of maltreatment (i.e., abuse and abuse and neglect) over time. In this sample scenario, we see the gap between estimated events of child abuse and neglect in the community (dotted blue line) and the events that could be detected (dotted yellow line) would continue to persist beyond the beginning of COVID-19-related closures from March 2020 into the rest of the year. This scenario might prompt system leaders to develop strategies (e.g., family outreach, preventive services) to fill the "gap."

Figure 4. Latent Event Simulator tool: Estimating the number of alleged child maltreatment events per month in 2020
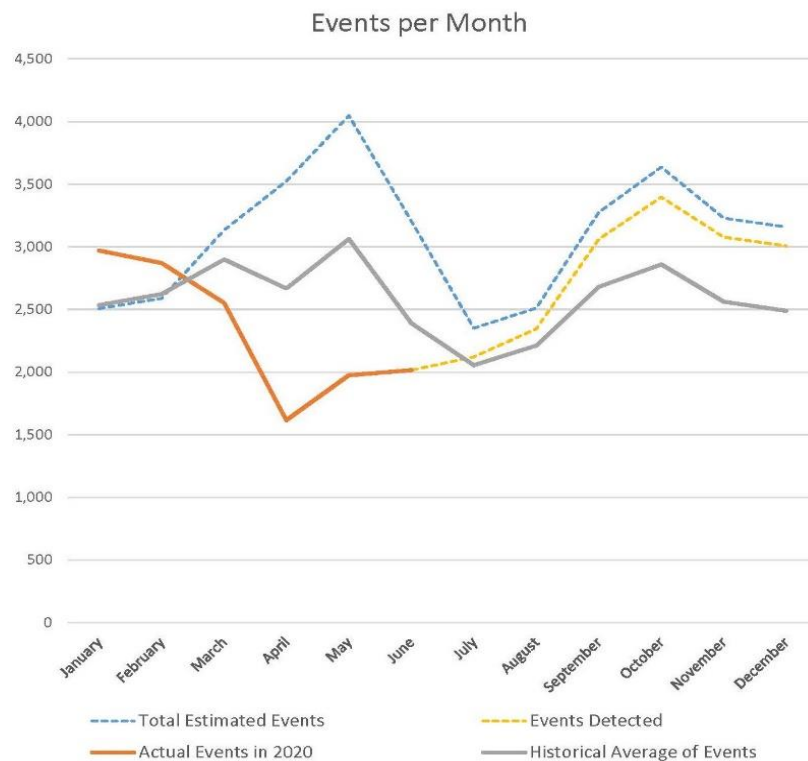
This dynamic tool can be adjusted to incorporate fluctuation in drivers, reports, and responses so that it can inform strategies to address family needs as well as to forecast workforce capacity needed to implement these strategies to scale. Additional jurisdiction-specific analyses are being run to understand the relationship between community-level stressors and system dynamics. Comparisons of hotline calls received during the same months in prior years can inform the identification of specific needs.

Discussion

While the COVID-19 pandemic has disrupted child welfare system operations in countless ways, it has also challenged us to think strategically about how to reorient our systems to promote child and family well-being. This work presents a conceptual frame and an analytic process as well as an empirically derived tool to help system leaders forecast and plan responses to child vulnerability and family needs.

Children at increased risk of maltreatment are likely a small subset of the families that come to our attention. When children are inadequately fed, clothed, housed, or supervised, many of our current state and county child welfare systems are primarily resourced to initiate investigations. Rather than promoting increased surveillance by mandated reporters, systems should reorient collective resources to provide preventive services to a broad array of families.

This work is predicated on the analysis of drivers of service needs and changes in the social-ecological context at the local level. Data analyses suggest substantial geographic variation in the relationship between community drivers and child and family needs. Therefore, to apply this work to refine plans and system structures, child welfare jurisdictions should partner with data analysts to (1) access publicly available community-level data to generate geographically specific predictors of fluctuation in maltreatment; (2) incorporate the "weights" (coefficients) of these community-level predictors into the simulator tool; and (3) adjust reports by type (neglect only vs. neglect and abuse) to reflect child exposure to reporters and to project the numbers of cases in need of support, service, or investigation. In this way, system leaders can forecast capacity adjustments that will be required for hotline, investigations, or support staff to respond appropriately to child and family needs.

There are several limitations of this analytic work. First, while we incorporated monthly unemployment rates, we used annual poverty rates. This means we did not account for the relationship between unemployment and poverty, or the impact of monthly fluctuation in poverty on maltreatment. Second, the relationship between unemployment and maltreatment is not likely to be linear, but in order to generate coefficients that can be used by the simulator, we have used a multilevel time series approach that presumes linear relationships within each level. Future iterations may involve logarithmic or other nonlinear transformations to improve model fit while maintaining usability of the simulator. Third, we have not examined the potential mediating effects of other factors (e.g., mental health, stress, or isolation) that might affect the relationship between unemployment and maltreatment.

Adaptive System Changes

In addition to shifting capacity to respond appropriately to reports requiring investigations and those needing services, we recommend the following adaptive system changes:

Child maltreatment categories should be refined to distinguish and address poverty-related neglect from child endangerment or abuse. Findings on substantiation by reporter type as well as time series results suggest that hotline reports of "neglect only" may be a phenomenon distinct from child endangerment. While lack of supervision, food, clothing, or shelter can surely jeopardize the safety of children, addressing these directly through concrete supports may be more efficient and effective than initiating a child welfare case that punishes families for living in poverty.

Broaden the array of community-based supports and partner with families directly to identify what resources they need to address their challenges and safely care for their children. The Family First Prevention Services Act (Public Law 115-123) provides new flexibility and opportunity to fund and expand the delivery of community-based preventive interventions. Similarly, some states have implemented alternative response pathways that provide a non-investigative alternative for assessing and meeting family service needs. A robust preventive service array and clear pathways for connecting families with the things they need may alleviate the need for child welfare systems to investigate a large proportion of reports by mandated reporters. Building the availability of community-based supports may include those addressing concrete (economic) needs, such as free/low-cost childcare; economic supports for food, housing, and other basic needs (e.g., rent subsidies); and respite for parents who may be overwhelmed by full-time childcare and education responsibilities.

Leverage technology to improve access to needed services and supports. Many child welfare systems use predictive risk models to quickly assess the risk level of cases requiring more intensive intervention. Some systems have implemented mobile resource referral tools that can provide timely and accurate service referral information; others are exploring electronic reporting systems that can triage reports to "warmlines" and service referrals. These tools can speed up responsive decision making about how best to help families. The ease with which mobile technology allows us to shop, reserve, and research suggests we can mobilize the same strategies to promote family stability.

Create alternative pathways to enhance the ways in which mandated reporters can support families. Child welfare systems should create additional non-investigative pathways to address neglect-only concerns, leveraging technological referral tools, community organizations, and alternative responses. A partnership of education and child welfare system leaders can develop new goals and approaches to training education personnel to understand their role in promoting well-being and detecting/addressing family needs. With new tools at their disposal, teachers and other school personnel can be reoriented to more nuanced roles as support liaisons.

Expand the responsibility for child and family well-being beyond the child welfare system. The entire family and child service sector, in partnership with communities, must provide swift and comprehensive supports to families in need. Inter-agency collaboration, redefined roles, and supportive structures can allow us to build a child and family *well-being system* that is resourced and coordinated to provide a safety net and promote the health and strength of families.

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