



HOW TECHNOLOGY AND DATA SCIENCE CAN CREATE A MORE EFFECTIVE CHILD ABUSE RESPONSE PROCESS

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CHILD ABUSE: PENAL CODES AND THE WELFARE INSTITUTION CODES

California Common Core Curriculum Child Maltreatment Identification December 31, 2018 CDSS	
POLICE	The California Penal Code, specifically the Child Abuse and Neglect Reporting Act (CANRA)
PENAL CODE PC 11165.1	Sexual Abuse and Exploitation—defines sexual abuse as sexual assault or exploitation including rape, statutory rape, incest, sodomy, oral copulation, sexual penetration, child molestation, commercial sexual exploitation, or lewd and lascivious acts.
Penal Code PC 11165.2	Neglect – defines neglect as the negligent maltreatment of a child by a parent or designated caregiver.
Penal Code PC 11165.2	Severe neglect – defines severe neglect as withholding food/water on a prolonged, willful basis and/or failure to provide medical treatment which will result in permanent and/or severe illness or death.
Penal Code PC 11165.3	Willful harming and endangering – define abuse as a situation in which any person willfully causes or permits any child to suffer unjustifiable physical pain or mental suffering or permits the child to be placed in a situation in which his or her person or health is endangered.
Penal Code PC 11165.4	Unlawful corporal punishment - defines abuse as willfully inflicting cruel or inhuman corporal punishment or injury by any person resulting in a traumatic condition

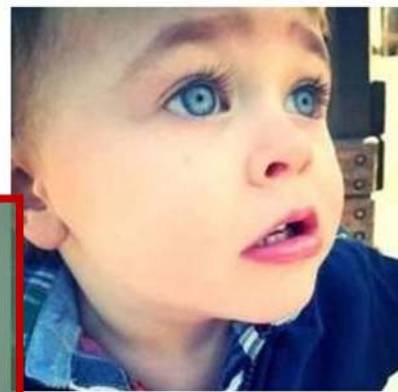
CHILD WELFARE 300 Code Section	Welfare and Institutions Code Section 300: Codes used by the juvenile court for child abuse intervention
300(a)	Physical harm/abuse: serious physical harm inflicted non-accidentally by a parent or guardian
300(b)(1)	General Neglect: serious physical harm caused by parent or guardian's failure to supervise or protect
300(b)(1)	Commercial Sexual Exploitation: sexual exploitation of a child who is sexually trafficked or who receives food or shelter in exchange for, or who is paid to perform, sexual acts and whose parent or guardian failed to, or was unable to, protect the child.
300(c)	Emotional Abuse: the child is suffering serious emotional damage, or is at substantial risk of suffering serious emotional damage, evidenced by severe anxiety, depression, withdrawal, or untoward aggressive behavior toward self or others, as a result of the conduct of the parent or guardian.
300(d)	Sexual abuse: sexual abuse by a parent, guardian, or member of the household
300(e)	Severe physical abuse of a child under age 5: a single act of abuse inflicted by a parent, or a person known by the parent, if left untreated, could cause permanent physical disfigurement, disability, or death.
300(f)	Death of a sibling through abuse: parent or guardian caused the death of another child through substantiated abuse or neglect
300(g)	Caregiver absence: the child has been left with no provision for support
300(h)	Relinquishment or termination of parental rights: the child has been freed for adoption for 12 months or no adoption has been made
300(i)	Cruelty: the child experienced acts of cruelty by the parent, guardian, or a member of the household
300(j)	Substantial risk based on substantiated abuse of a sibling: the child is at risk based on maltreatment of a sibling

CommonCore3.0 Child Maltreatment Identification Skills Lab Trainee Guide: https://calswec.berkeley.edu/sites/default/files/12.31.18cmi_traineeguidepdf.pdf

U.S. Federal and State Cases, Codes, and Articles: <https://codes.findlaw.com/ca/welfare-and-institutions-code/wic-sect-300.html>



THESE CHILDREN *DIED*
FROM FAMILY VIOLENCE



FATAL CHILD ABUSE



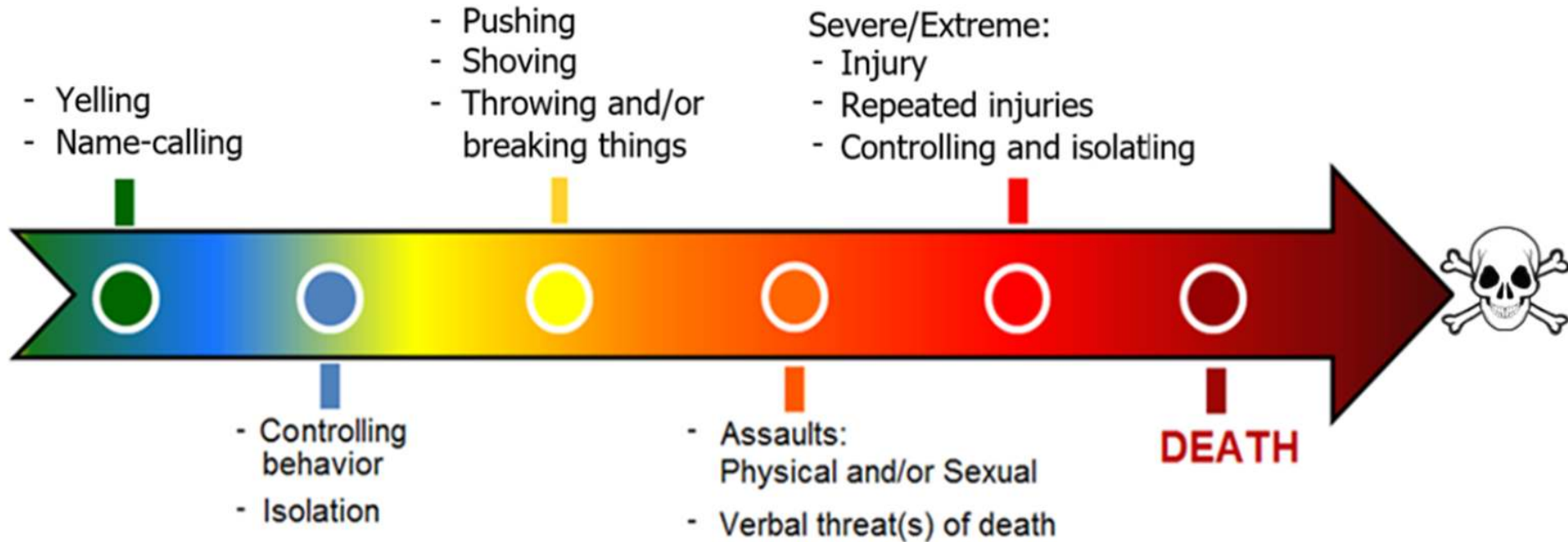
BEFORE



AFTER

<https://lightingtheirwayhome.wordpress.com/2013/09/30/alissa-guernsey-brutally-tortured-and-beat-by-her-aunt-christy-shaffar-cca0091-updated-09-30-2013/>

DATA POINTS ARE GENERATED SIMULTANEOUSLY WITH THE ESCALATION OF VIOLENCE



FATAL CHILD ABUSE

P A T H: Children 5 and under



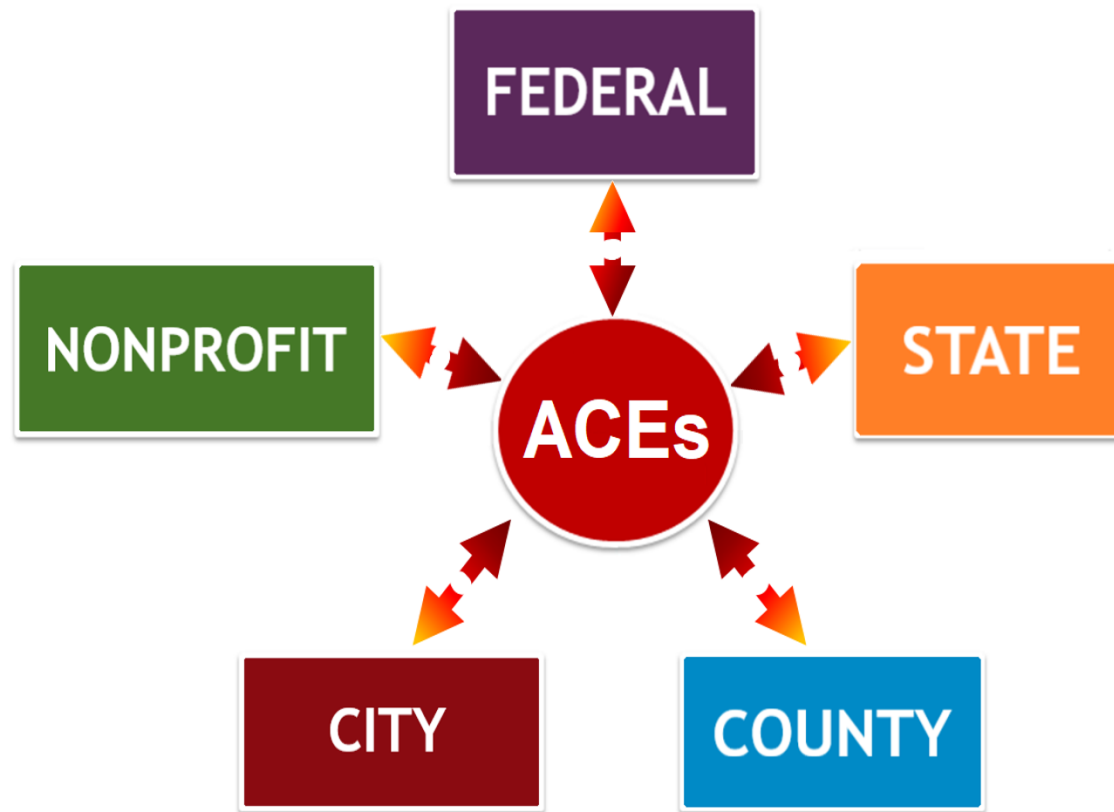
CHILD ABUSE: U.S. STATISTICS - THE NUMBERS

1. More than **600,000** children are abused in the U.S each year.
2. Most vulnerable age group: children in the first year of their life are 15% of all victims, and *more than a quarter (28%) of child maltreatment victims **are no more than 2 years old.***
3. Girls had a victimization rate of 8.7 per 1,000 girls in the population versus boys at 7.5 per 1,000 boys. American Indian or Alaska Native children have the highest rate of victimization at 15.2 per 1,000 children in the population of the same race or ethnicity, while African American children have the second-highest rate at 13.1 per 1,000 children of the same race or ethnicity.
4. DEATH: in 2021, (estimated) 1,820 children died from abuse and neglect. Boys have a higher child fatality rate at 3.01 per 100,000 versus girls at 2.15. African-American child fatalities (5.6 per 100,000) is 2.9 times greater than white children (1.94), and 3.9 times greater than Hispanic children (1.44).
5. Neglect is the most common form of abuse. Three-fourths (76%) of victims are neglected, 16% are physically abused, and 10% are sexually abused, and 0.2% are sex trafficked.

National Children's Alliance: <https://www.nationalchildrensalliance.org/media-room/national-statistics-on-child-abuse/>



ADVERSE ~~CHILDHOOD~~ ^{COMMUNITY} EXPERIENCES



The safety and risk threat response processes across agencies are disconnected. Also, the violence protocols are designed not to be in sync. Thus, this thwarts the community from appropriately reacting and supporting families and children.



FATAL CHILD ABUSE
IF YOU CAN'T **MEASURE IT**
– YOU CAN'T **IMPROVE IT**
– YOU CAN'T **MANAGE IT**



RESULTS:

Without factual real-time data, community agencies cannot maximize and coordinate emergency services for the clients they serve. This causes community agencies to miss their safety and risk targets – placing a bullseye "threat hit" on children and families.

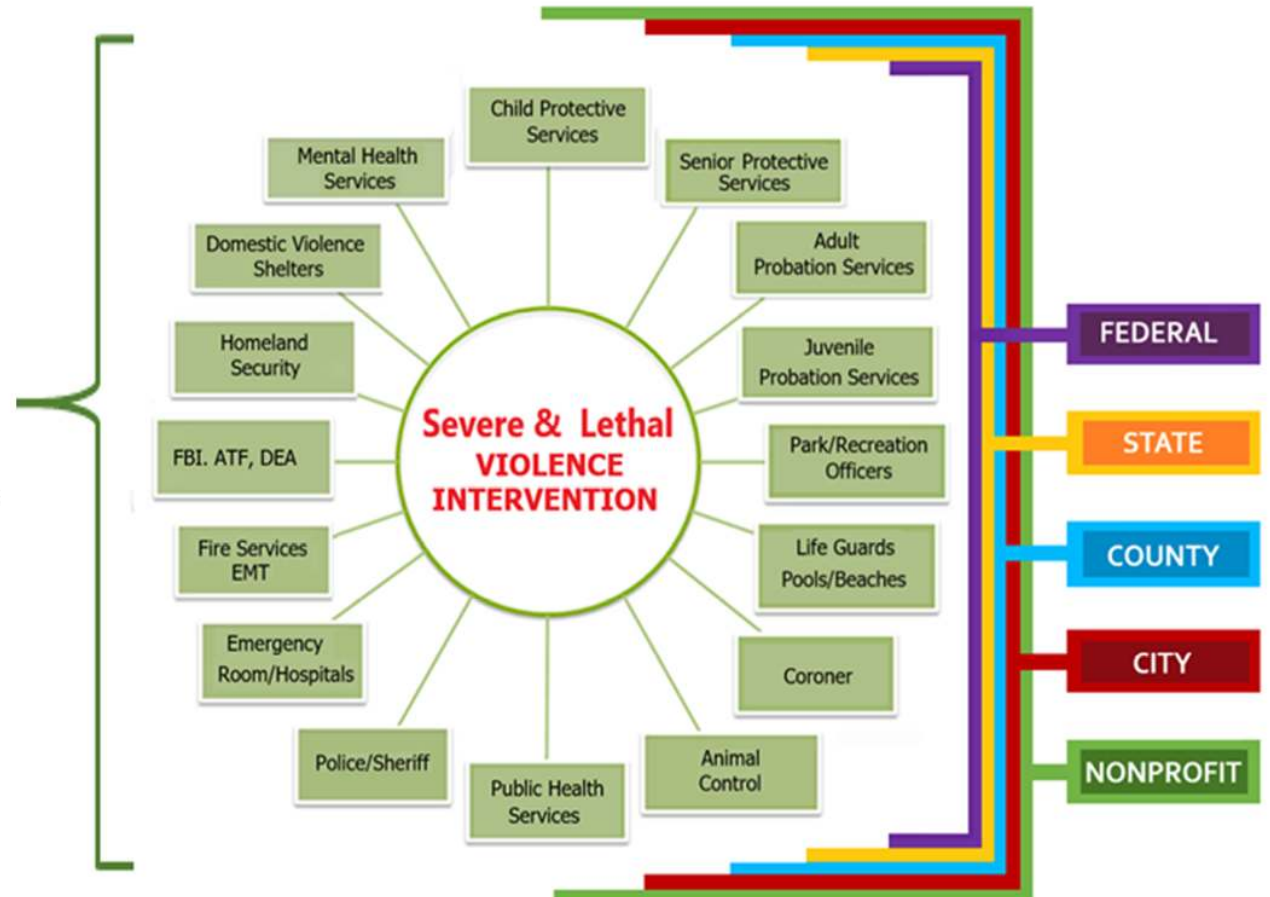


UNDERSTANDING THE RESPONSE PROTOCOLS

MULTIAGENCY AND MULTIDISCIPLINARY PROCESS

CHILD ABUSE RESPONSE = DATA

1. The initial child abuse call generates a field call for first responders. However, this is not a coordinated emergency response from all first responders.
2. It's crucial to understand that each agency has its own unique fatal/critical incident response process and rules of engagement, underscoring the need for a comprehensive understanding of these processes.
3. Each agency has its own set of forms to document the critical incident – fatal child abuse. The forms also guide the first responders in collecting certain data elements to complete their investigations and related tasks.
4. Each agency has technology to generate, store, and retrieve data.
5. Result: the agency creates strict access to their data and also sets access limits for its employees.

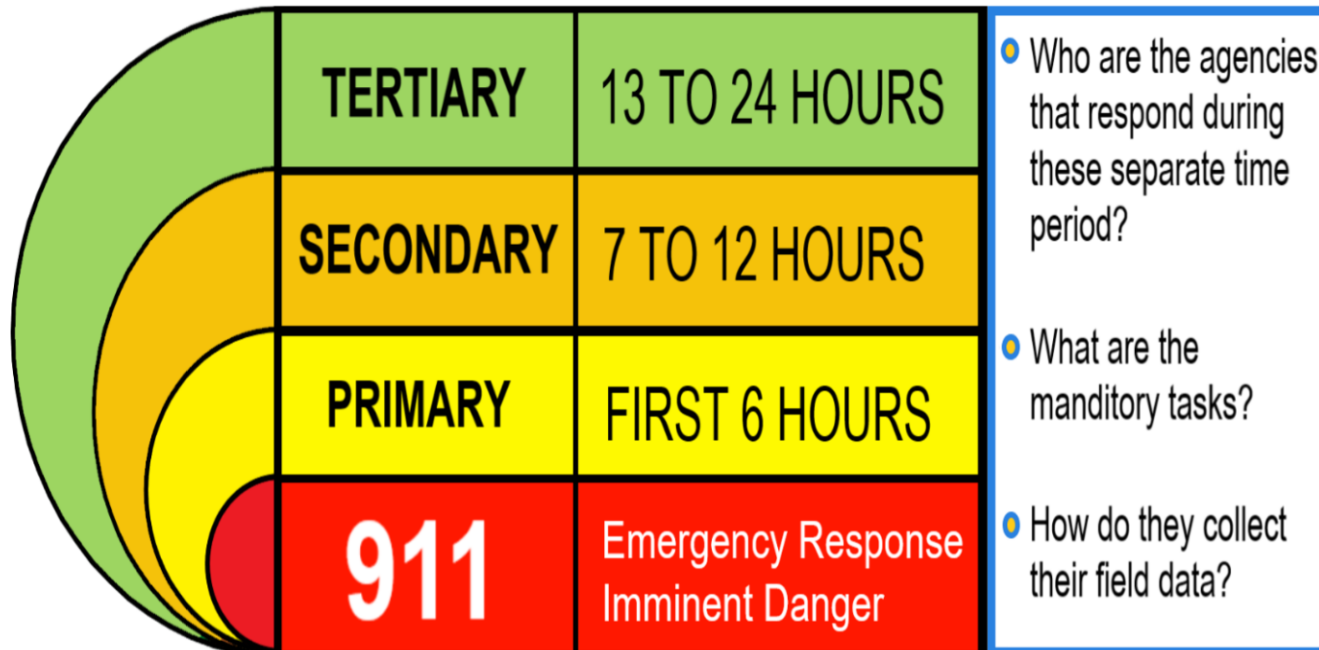




CHILD IN CRISIS - IMMEDIATE DANGER



- When and who determines a child is in imminent danger/risk?
- What are the federal mandates for the 911 response process
- What are the state laws that govern mandated reporters?
- What are the procedures for county and municipal department to work in collaboration process



Real-time Multiagency and Multidisciplinary Response Protocols

- Calibration of the intervention for all First Responders
- Incorporate cultural/ethnic dimensions
- Increase "lessons learned" across multidisciplinary domains
- Gather 911 imminent response and Intervention raw data to identify patterns, trends, and characteristics for prevention efforts



POLICE: DATA COLLECTION METHODS WHEN POLICE RESPOND TO FATAL FAMILY VIOLENCE AND CRITICAL INCIDENTS

3 X 5 INDEX CARD FRONT

APR 10 11 00 AM	DATE	TIME	LOCATION	OFFICER	REPORT NO.
INCIDENT					
PERSONAL ADDRESS					
CITY					
STATE					
ZIP					
TELEPHONE					
BUSINESS ADDRESS					
CITY					
STATE					
ZIP					
TELEPHONE					
PERSONAL ADDRESS					
CITY					
STATE					
ZIP					
TELEPHONE					

BACK

PERSONS WITH SUBJECT	
NAME (LAST, FIRST)	DOB
NAME (LAST, FIRST)	DOB
ADDITIONAL INFO (ADDITIONAL PERSONS, INCIDENTS, NARRATIVE, & INFO, SOCIAL MEDIA, ACCIDENTS, ETC.)	
DATE	
OFFICER	REPORT NO.
OFFICER	REPORT NO.
FIELD INTERVIEW (REMARKS, NO. OF INTERVIEW, DETAILS, DATE, TIME)	
IF A SOCIAL SECURITY NUMBER IS REQUESTED THE FOLLOWING DISCLOSURE MUST BE MADE:	
I, the undersigned, do hereby certify that the information provided is true and correct to the best of my knowledge and belief.	

6 X 3 POCKET NOTEBOOK

DATE	TIME	LOCATION	OFFICER
INCIDENT			
PERSONAL ADDRESS			
CITY			
STATE			
ZIP			
TELEPHONE			
BUSINESS ADDRESS			
CITY			
STATE			
ZIP			
TELEPHONE			
PERSONAL ADDRESS			
CITY			
STATE			
ZIP			
TELEPHONE			

Police Department – Police Field Report	
☐ Vehicle	Date
☐ Pedestrian	Time
Duration	
LIC # (if applicable)	
Block	
Full Street Address (Location of F.V., Shop, etc.)	
Post / Sector	
Officer's Name (Last, First)	
Incident #	
Officer's Signature	
CITIZEN INFORMATION	
Citizen Name (Last, First, MI)	
Race: ☐ Black ☐ White ☐ Asian or ☐ Ethnicity: ☐ Hispanic or Latino ☐ Primary Language Spoken (Other)	
Block	
Full Street Address	
City, State	
Identification ☐ Driver's License ☐	
State	
Licensed / Number	
VEHICLE INFORMATION	
Year / Make / Model	
Color	
VIN	
Primary Reason for Call	
Field Interview / Investigative Stop	
Incident / Violation	
Article	
Section	
ACTION(S) TAKEN	
None ☐ Repair Order ☐ Warrant Check ☐ Arrest ☐ Other	
Primary Charge	
Article	
Section	
Supervisor's Name (Last, First)	
Supervisor's Signature	
Incident #	
Date	

Police Department – Police Field Report			
☐ Person	☐ Property	☐ Vehicle	☐ Miscellaneous
Incident Report #			
Date			
Time			
Duration			
LIC # (if applicable)			
Block			
Full Street Address (Location of F.V., Shop, etc.)			
Post / Sector			
Officer's Name (Last, First)			
Incident #			
Officer's Signature			
CITIZEN INFORMATION			
Citizen Name (Last, First, MI)			
Race: ☐ Black ☐ White ☐ Asian or ☐ Ethnicity: ☐ Hispanic or Latino ☐ Primary Language Spoken (Other)			
Block			
Full Street Address			
City, State			
Identification ☐ Driver's License ☐			
State			
Licensed / Number			
VEHICLE INFORMATION			
Year / Make / Model			
Color			
VIN			
Primary Reason for Call			
Field Interview / Investigative Stop			
Incident / Violation			
Article			
Section			
ACTION(S) TAKEN			
None ☐ Repair Order ☐ Warrant Check ☐ Arrest ☐ Other			
Primary Charge			
Article			
Section			
Supervisor's Name (Last, First)			
Supervisor's Signature			
Incident #			
Date			

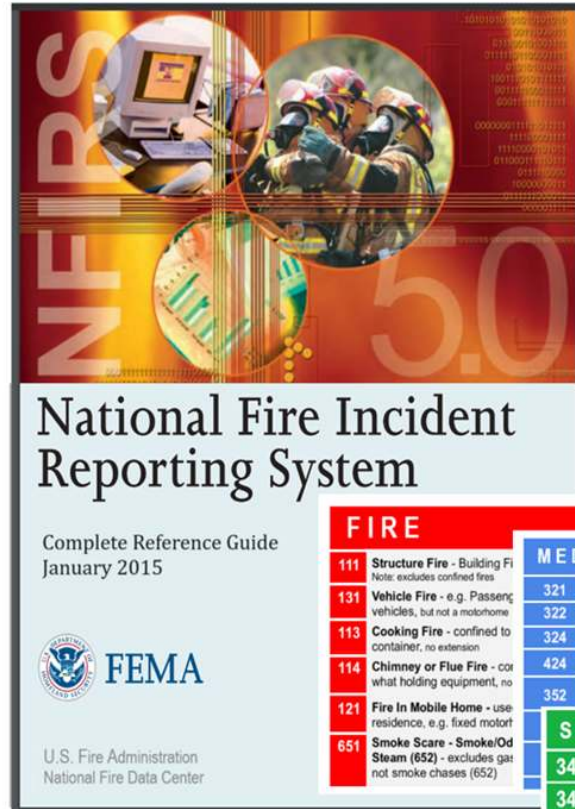


Police departments across California do not use the same data metrics to capture fatal family violence and Critical Incidents - child abuse. Now, think about the data metrics across the United States. . .



FIRE / EMT: DATA COLLECTION METHODS WHEN FIRE/EMT RESPOND TO FATAL FAMILY VIOLENCE AND CRITICAL INCIDENTS

National Fire Incident Reporting System U.S. Fire Administration - National Fire Data Center



CODES

NOTHING DOING

611 Canceled En Route

622 Unable to Locate (UTL)

MISCELLANEOUS

444 Power Line Down

331 Lock-in

362 Ice Rescue

FIRE

- 111 Structure Fire - Building Fire
Note: excludes confined fires
- 131 Vehicle Fire - e.g. Passenger vehicles, but not a motorhome
- 113 Cooking Fire - confined to container, no extension
- 114 Chimney or Flue Fire - confined to residence, e.g. fixed motor
- 121 Fire in Mobile Home - use residence, e.g. fixed motor
- 651 Smoke Scare - Smoke/Od Steam (652) - excludes gas not smoke chases (652)

MEDICAL/RESCUE

- 321 Medical Call (EMS)
- 322 MVA with injuries
- 324 MVA without injury
- 424 Carbon Monoxide Incident
- 352 Extrication from vehicle

SEARCH & RESCUE

- 341 Search For Person on Land
- 342 Search For Person in Water

LOCAL - STATE- FEDERAL INCIDENT REPORTING [DATA] PROTOCOLS



Fire Dept. and EMT across California do not use the same data metrics to capture fatal family violence and Critical Incidents - child abuse. Now, think about the data metrics across the United States. . .

METRICS: INTERVENTION TO PREVENTION

When fatal child abuse metrics are not fully measured, improvements are not maximized. Fatal child abuse/lethal family violence is *SPONTANEOUS* and we need to be ready for it

Multiagency:

- Intervention = Multidisciplinary First Responders
- Prevention = Interdisciplinary First Responders



***Note:** Some agencies have many disciplines within their department that collaborate with their First Responders. Example: DCFS has public health, on-call attorneys, and various human service disciplines.*

Fire police FIRST RESPONDERS BABY
fatal child abuse HELP safety Imminent Danger RISKS LIFE
intervention SOCIAL WORKERS CPS FAMILY prevention
Emergency DATA DEATH EMT
DATA INCIDENT Technology DATA NURSE MD INJURIES SAFE
PLANNING VIOLENCE social services

METRICS: INTERVENTION ➡ MULTIDISCIPLINARY

Intervention = Spontaneous and Involves Multidisciplinary First Responders Process

- Fatal child abuse is not a planned act of violence scheduled on a calendar ahead of time. It is *spontaneous*.
- When a child dies at home, a 911 call triggers an immediate response.
- Based on family and community circumstances, various agencies are activated, and response is deployed. This causes a multidisciplinary process to begin.
- The response time is not a collaborative and coordinated process. All participating agencies have a different response time. Sometimes, an agency may respond 24 to 48 hours later.
- When first responders engage with the deceased child and family system, the information/data gathered is minimally shared or not shared at all. As a result, this impacts the data collection process used to monitor and build their response mechanisms for public safety.
- First Responder agencies report data sets to municipal, county, and state representatives. However, not all available data is collected. Hence, this creates skewed data outcomes for everyone.



METRICS: INTERVENTION PREVENTION

Prevention = Interdisciplinary First Responders

- Successful fatal child prevention strategies are created when multiple responding agencies engage in **POST** shared experiences.
- Prevention activities are planned and scheduled on a calendar.
- Prevention strategy processes utilize data generated and collected from the initial intervention response process
- Once the fatal child abuse outcomes are analyzed, they are filtered to augment and drive prevention strategies.

From Intervention Prevention Perspective:

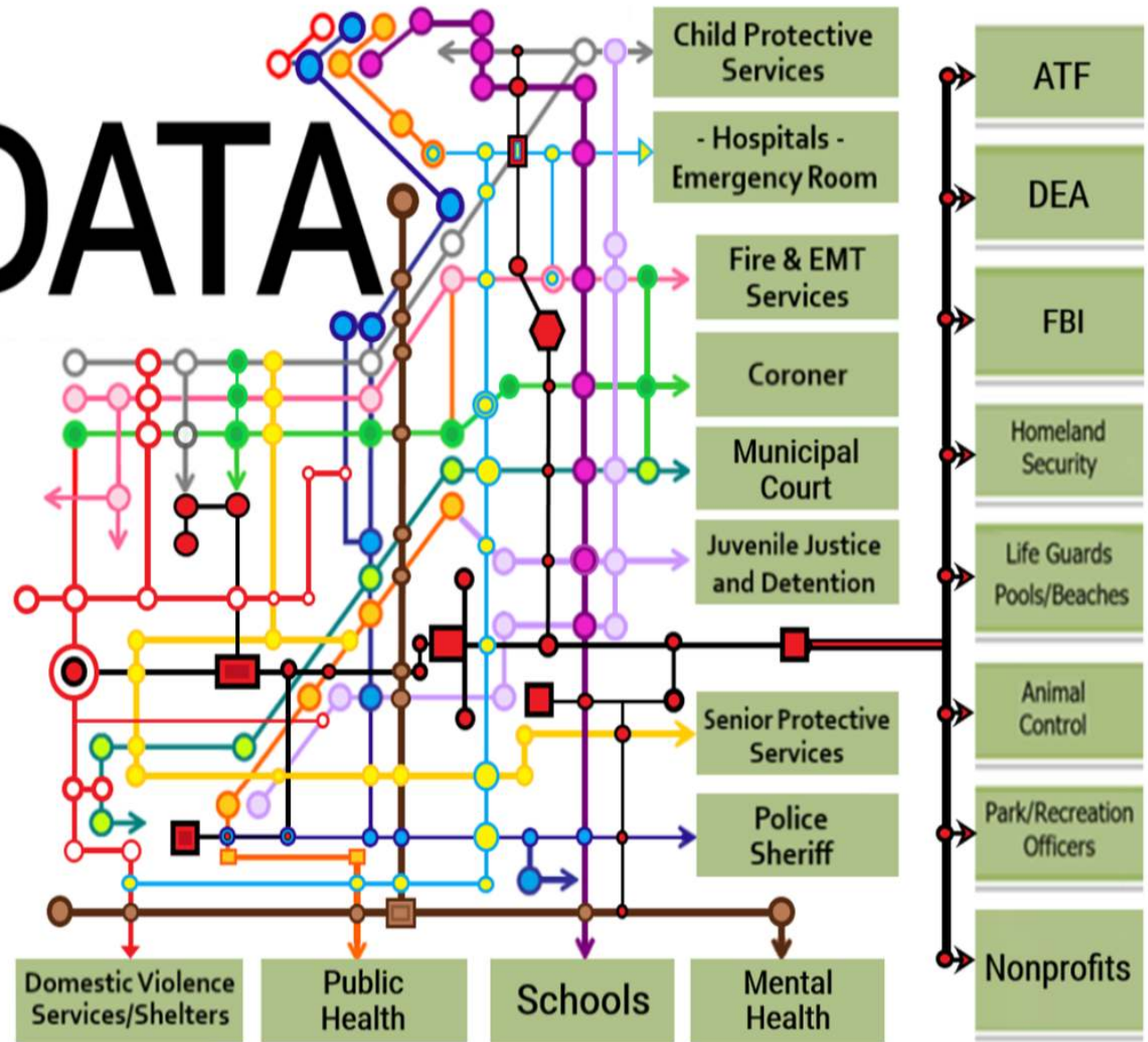
- Field-based intervention data streams need to be dissected at the granular level to identify data gaps and use this analysis to build more robust and comprehensive response methods to engage in fatal child abuse (and lethal family violence).
- Observe, track, and measure the initial “response” work to better understand the data and information transfer process from intervention to prevention.
- Incorporating a more granular data process can resolve possible biases, information gaps and observe disconnection and the “siloed effect” amongst all fatal child abuse responding agencies and the technological/data-gathering field tools.

FOLLOW THE DATA

WHAT HAPPENS TO THE DATA ???

1. Who generates the initial *fatal child abuse/lethal family violence* call, text, and/or Internet? How is this information captured?
2. How do the Emergency First Responders record their information during their field work?
3. During the first **24** hours, the investigative and casework involves how many data systems?
4. After **24** hours, what information systems are engaged?
5. Are their ongoing tasks/assignments with other agencies? If so, how is the information shared? Can this process enable agencies to capture data?

DATA

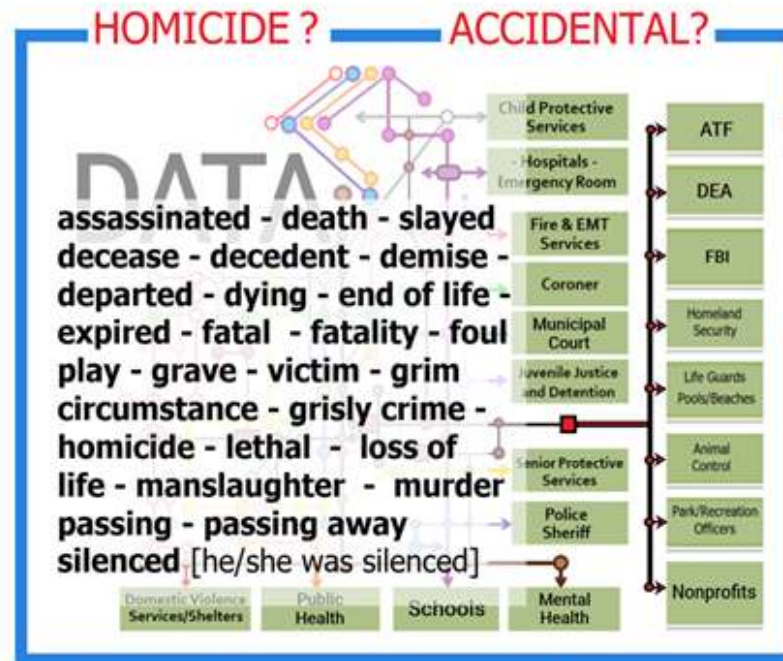


FATALITY & CRITICAL INCIDENTS: DIFFICULTY OF INTEGRATION & COORDINATION

First Responders are typically the first to witness fatal child abuse and critical incidents. They play an essential role in collecting all the necessary information and preparing reports that form the data foundation for initial violence analysis. Since these situations are complex, First Responders must collect unique data elements - as defined by their agency's reporting protocols. This is crucial to ensure accurate and comprehensive analysis. The compiled data helps establish statistical outcomes, enabling municipal, county, state, and federal authorities to develop intervention and prevention programs and related services. However, the data elements required vary from agency to agency, which often results in underreporting and misalignment. As a result, agencies cannot fully coordinate, collaborate, and deliver services, especially when responding to fatal family violence and critical incidents.

DEATH:

There are many words that described the end of life. When we engage in triage work, we understand the meaning of the vocabulary used. However, a computer does not “think” and interpret data elements like us during a case analysis. As a result, the computer *reads the various data elements as distinct and different elements.*



During an in-person case conference, we all understand these words mean "DEATH"

COMPUTER
translate



When a computer receives data from **EXTERNAL** incoming data streams, they represent completely different nomenclature - hindering data metrics/analysis

NATIONAL FIRE INCIDENT REPORTING SYSTEM (NFIRS) LOGIC AND METHODS CAN BE APPLIED TO CRITICAL INCIDENTS FIRST RESPONDERS DATA PROTOCOLS

Accurate data is essential for organizational decision-making.

For the fire service, data is reported in the National Fire Incident Reporting System (NFIRS) for all their emergency responses. It is critical to make sure the data reported is complete and accurate because this information is used at all levels — from local budget development to the identification of national preparedness initiatives. Accurate fire incident reports are of utmost importance and can impact *your department's DATA* reporting and analyses just as much as they can for the *entire United States*. When incidents are documented in the NFIRS, there is the potential for data entry errors — mistakes that can *alter the intended meaning of the information*. Several mistakes across a region may not be significant, but many mistakes in the same region — or worse, across the entire country — can dramatically affect the meaning of the data. The same result occurs when data is generalized, such as the overuse of the unknown, none or other codes.

DATA ERRORS:

It is important to note that data errors can significantly impact the accuracy and reliability of investigations and overall statistical outcomes.

1. **Dollar loss values:** due to minimizing field assessments that impact data collection for financial analysis.
2. **Incorrect/false information:** This hinders an investigator's ability to accurately assess a situation.
3. **Mismatched data elements:** Documenting and/or recording incorrect terminology to describe a scene or threat can lead to confusion and misinterpretation.
4. **Interpretation errors:** Subjectivity may result in biases and opinions that may cause an agency to respond inappropriately.

<https://www.usfa.fema.gov/nfirs/coding-help/data-quality/>

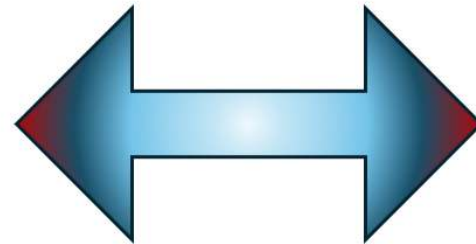


ADVOCACY THROUGH TECHNOLOGY

THIS PRESENTATION IS FOCUSED ON ADVOCACY AND PROMOTING CHANGE THROUGH TECHNOLOGY

[A]dvocacy organisations attempt to change the status quo. (Young, 1992: 4) Social work advocacy works to 'effect changes in policies, practices and laws that affect all people in a specific class or group'. (Litzelfelner and Petr, 1997: 393). Advocacy is 'a political act with consequences for both individuals and the community as a whole, challenging inequality, opposing racism, preventing abuse, or even introducing someone to a new opportunity or social setting – all constituting steps towards a more civil and just society'. (Henderson and Pochin, 2001: 15). To assist clients in upholding their rights to receive resources and services or to actively support causes to change programs and policies that have a negative effect on individual clients or client groups. (Sheafor and Horejsi, 2003: 57)

www.sagepub.com/sites/default/files/upm-binaries/58102_Dalrymple_&_Boylan.pdf



HARNESS AND SHARE THE COLLECTIVE KNOWLEDGE

How can we harness the collective knowledge of experts to assist in reporting and responding to a child abuse incident? *Through technology and research*

Technology:

- Allow for real-time data capture and analysis
- Provide access to resources
- Crowdsourcing the knowledge of first responders and Child Welfare/ER “field” experts where the knowledge is easily accessible for others seeking to learn.
- Connect First-Responders, based on municipal and county, as a mechanism to connect when they seek assistance and/or have questions in the field.

Research:

- Connect researchers based on shared projects
- Assist and build up the research projects for a greater reach and opportunity for grants
- Engage in a multidisciplinary perspective
- Facilitate questioning, “what works and what is not working” from a nonjudgmental and communal perspective.



<https://thehill.com/policy/national-security/250369-court-cops-need-warrants-for-cellphone-location-data/>

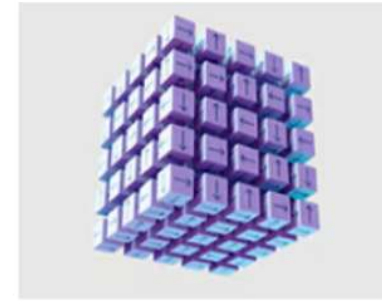
COMPUTERS [GENERATE] + DATA = OUTCOMES

ARTIFICIAL INTELLIGENCE IN FIELD WORK

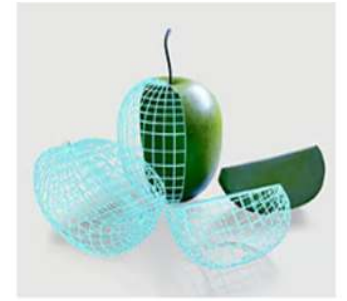
What are the potential ramifications of incorporating artificial intelligence into the workflow of First Responders? By utilizing AI to streamline the process of quantifying and qualifying mandatory tasks and conducting comprehensive analyses for reporting purposes of critical incidents and fatal child abuse, how might *error-prone [or biased] multi-layered data sets* impact the accuracy and reliability of investigative reports and statistical outcomes?

1. **Artificial Intelligence:** Artificial intelligence is a machine's ability to perform some cognitive functions we usually associate with human minds.
2. **Generative AI:** Generative AI describes algorithms that can be used to create new content, including audio, code, images, text, simulations, and videos.
3. **Artificial General Intelligence:** a theoretical AI system with capabilities that rival those of a human. Researchers believe we are still decades away from achieving full AGI.
4. **Machine Learning:** Machine learning is a form of artificial intelligence that is able to learn without explicit programming by a human.
5. **Deep Learning:** Deep learning is a type of machine learning that is more capable, autonomous, and accurate than traditional machine learning.
6. **Tokenization:** Tokenization is the process of creating a digital representation of a real thing. Tokenization can protect sensitive data or process large amounts of data.

<https://www.mckinsey.com/featured-insights/mckinsey-explainers/what-is-tokenization>



Machine Learning



Generative AI



Artificial Intelligence



Deep Learning



Artificial General Intelligence

MINMAL VALUE SCALES

Analytics and logic that control the data generating protocols for severe/lethal violence process may be:

- **Subjective**
- **Binary**
- **Culturally biased**
- **Retrospective**



LIKERT SCALE - Examples of 5-point scales

Agreement	Frequency	Level of concern
1. Strongly disagree	1. Never	1. Very unconcerned
2. Disagree	2. Rarely	2. Unconcerned
3. Neither agree or disagree	3. Sometimes	3. Neutral
4. Agree	4. Often	4. Concerned
5. Strongly agree	5. Always	5. Very concerned

<https://www.scribbr.com/methodology/likert-scale/>

Mark **Yes** or **No** for each of the following. ("He" refers to your husband, partner, ex-husband, ex-partner, or whoever is currently physically hurting you.)

- _____ 1. Has the physical violence increased in severity or frequency over the past year?
- _____ 2. Does he own a gun?
- _____ 3. Have you left him after living together during the past year?
3a. (If you have *never* lived with him, check here: __)
- _____ 4. Is he unemployed?
- _____ 5. Has he ever used a weapon against you or threatened you with a lethal weapon? (If yes, was the weapon a gun? check here: __)
- _____ 6. Does he threaten to kill you?
- _____ 7. Has he avoided being arrested for domestic violence?
- _____ 8. Do you have a child that is not his?
- _____ 9. Has he ever forced you to have sex when you did not wish to do so?
- _____ 10. Does he ever try to choke/strangle you or cut off your breathing?
10a. (If yes, has he done it more than once, or did it make you pass out or black out or make you dizzy? check here: __)
- _____ 11. Does he use illegal drugs? By drugs, I mean "uppers" or amphetamines, "meth", speed, angel dust, cocaine, "crack", street drugs or mixtures.
- _____ 12. Is he an alcoholic or problem drinker?
- _____ 13. Does he control most or all of your daily activities? For instance, does he tell you who you can be friends with, when you can see your family, how much money you can use, or when you can take the car? (If he tries, but you do not let him, check here: __)
- _____ 14. Is he violently and constantly jealous of you? (For instance, does he say: "If I can't have you, no one can.")
- _____ 15. Have you ever been beaten by him while you were pregnant? (If you have never been pregnant by him, check here: __)
- _____ 16. Has he ever threatened or tried to commit suicide?
- _____ 17. Does he threaten to harm your children?
- _____ 18. Do you believe he is capable of killing you?
- _____ 19. Does he follow or spy on you, leave threatening notes or messages, destroy your property, or call you when you don't want him to?
- _____ 20. Have you ever threatened or tried to commit suicide?

SUBJECTIVE, SKEWED, AND MISIDENTIFIED VARIABLES LEADS TO PROBLEMATIC BIASED DATA SETS

Is it right to use AI to identify children at risk of harm? Machine learning, is used to help protect children, but it raises ethical questions. A computer-generated “Machine Learning” predictive analytics can help social workers assess the probability of a child being at risk and help guide prevention processes. Computers number-crunch vast amounts of data from many sources - including subjective and biased sources..

<https://www.theguardian.com/society/2019/nov/18/child-protection-ai-predict-prevent-risks>

The technology industry are *less reliable than they claim to be*, with serious ingrained biases, flaws in programming and surveillance software to detect child abuse, failure to crack down on child sexual abuse and exploitation networks, layoffs and cuts to community safety teams and workers. These practices and failings risk relentless repetition of trauma, secondary victimization and systemic harm to individuals, including children.

<https://www.ohchr.org/en/press-releases/2024/02/un-expert-alarmed-new-emerging-exploitative-practices-online-child-sexual>

Technological chasm: This follows the traditional lines of race: facial recognition algorithms are trained to read white faces; airport scanners can’t understand black hair styles; soft credit scores are correlated with racially segregated neighborhoods; and predictive policing data is plagued by racial bias. https://datasociety.net/wp-content/uploads/2019/05/Racial_Literacy_Tech_Final_0522.pdf

Technology is not neutral: The tech products created in Silicon Valley and *distributed globally* are not racially neutral but rather carry the imprint of the dominant culture in which they are created, exporting those assumptions and ideas to other cultures.

https://datasociety.net/wp-content/uploads/2019/05/Racial_Literacy_Tech_Final_0522.pdf

How Racial Segregation Shapes Data-driven Technologies and Algorithmic Bias: Racial segregation continues to play a central evolutionary role in the inequalities reproduced and amplified by data-driven technologies and applications. Racial segregation distorts and constrains the development and implementation of technologies, conceptualization of algorithmic bias problems, and assessments of interventions or solutions. Benefits of critical analysis of racial segregation are: 1) Deepens our understanding of algorithmic bias; 2) Evaluates technologies for social and racial equity concerns; and 3) Broaden our imaginations about meaningful redress of technology-mediated harms and injustices. https://btlj.org/wp-content/uploads/2023/01/0006-36-3-Richardson_Web.pdf

DISPARITIES BLACK FAMILIES FACE IN CHILD WELFARE

The Systemic Disparities Black Families Face in Child Welfare Programs:

The significant histories of systemic racism in society and in government actions have impacted the California's child welfare programs on Black children and families. Black children and youth are four times more likely to enter foster care than White children and youth but are less likely to leave foster care within 72 months compared to other groups. Racial disproportionality in child welfare systems can manifest:

- by the kinds of services developed;
- by inequitable treatment based on race within the service delivery system
- by incomplete efforts to change the system¹⁰
- lack of training of child welfare workers regarding the impact of implicit bias when interacting with the Black community.

Biases or cultural misunderstandings and distrust between child welfare and families contribute to children's removal from their homes. Lastly, economic marginalization and high poverty levels also increase Black families' exposure to the child welfare system.

<https://www.cdss.ca.gov/Portals/9/CCR/FFPSA/CA-FFPSA-FiveYear-Prevention-Planv2.pdf>

It is important to evaluate the implications of integrating historical child welfare data into the protocols and methods that guide the child abuse response. To ensure equitable emergency services provision, minimizing potential racial biases when utilizing technology to enhance coordination and streamline initial "First Response" calls between Child Welfare agencies and emergency services is critical. *How can we ensure the technology used in the initial child welfare community contact does not introduce biased data errors? How can we protect our children from harmful data protocols?*

California's Five-Year State Prevention Plan

Implementing the
Title IV-E
Prevention Program
Established by the Family
First Prevention
Services Act

California Department of
Social Services | 2023

SURVEILLANCE SOFTWARE: GOOD OR BAD?

PALANTIR [DATA] AND RACIST POLICING

Andrew Ferguson, author of “The Rise of Big Data Policing: Surveillance, Race, and the Future of Law Enforcement,” said Brayne’s work is an unflinching look when people in power use technologies. “Inside look at big data surveillance - she was given access to big data policing in a way that no one else has — and probably, because of *her success, no one else ever will.*”
<https://theintercept.com/2021/01/30/lapd-palantir-data-driven-policing/>

Palantir has been accused of human rights violations by “targeting parents and caregivers of unaccompanied migrant children” (Bell and Kleinman 2020). In Los Angeles, each time an individual was stopped by the police they were added to Palantir’s system and given a ‘point’ on their digital record. Such a system risks creating a feedback loop: people *in over-policed neighborhoods are “more likely to be stopped, thus increasing their point value, justifying their increased surveillance, and making it more likely that they will be stopped again in the future”*, said Sarah Brayne, the author of ‘Predict and Surveil: Data, Discretion, and the Future of Policing’, in The Intercept. . . . The agency [ICE] has been repeatedly accused of racial profiling and violations of human rights. Palantir has provided technology for ICE’s systems that was used to “execute harmful policies targeting migrants and asylum-seekers”, according to Amnesty International.

<https://www.opendemocracy.net/en/digital liberties/five-reasons-to-worry-about-spy-tech-firm-palantir-handling-your-nhs-data/>

	OFFICE OF THE SHERIFF COUNTY OF LOS ANGELES HALL OF JUSTICE ALEX VILLANUEVA, SHERIFF	
May 21, 2019		ADOPTED BOARD OF SUPERVISORS COUNTY OF LOS ANGELES 61 May 21, 2019  CELIA ZAVALA EXECUTIVE OFFICER
The Honorable Board of Supervisors County of Los Angeles 383 Kenneth Hahn Hall of Administration 500 West Temple Street Los Angeles, California 90012		
Dear Supervisors:		
EXTEND THE TERM OF SOLE SOURCE CONTRACT NUMBER 60701 WITH PALANTIR TECHNOLOGIES, INC. TO PROVIDE SOFTWARE MAINTENANCE AND SUPPORT (ALL DISTRICTS) (3 VOTES)		
CIO RECOMMENDATION: APPROVE (X) APPROVE WITH MODIFICATION () DISAPPROVE ()		
SUBJECT		
The Los Angeles County (County) Sheriff's Department (Department) is requesting authorization from the Board to execute Sole Source Amendment Number One (Amendment) to extend Sole Source Contract Number 60701 (Contract) with Palantir Technologies, Inc. (Palantir) for continued maintenance and support of Palantir's proprietary Gotham™ business intelligence tools utilized by the Department's Joint Regional Intelligence Center (JRIC).		
http://file.lacounty.gov/SDSInter/bos/supdocs/135540.pdf		

HOW WE FIX THIS? IS IT **TOO** BIG? WHAT CAN TECH DO?



U.S. Department of Health & Human Services
HHS.GOV

BUILDING A HEALTHY AMERICA FY 2024 President's Budget for HHS

The following table is in millions of dollars

HHS Budget	2022	2023	2024
Budget Authority ¹	1,635,534	1,772,315	1,737,965
Total Outlays	1,643,127	1,701,433	1,691,374

Administration for Children and Families: Overview

ADMINISTRATION FOR CHILDREN & FAMILIES

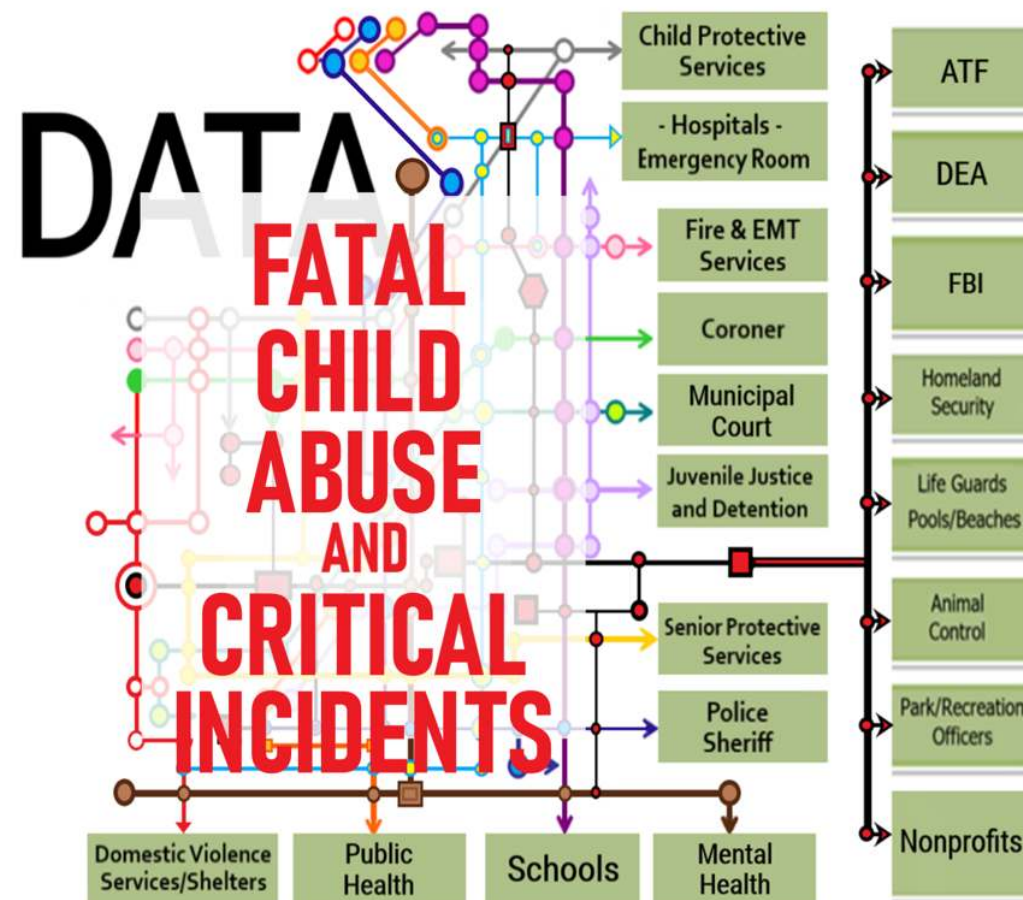
The following table is in millions of dollars.

ACF Budget Authority	2022	2023	2024	2024 +/- 2023
Discretionary	32,412	32,755	39,392	6,637
Mandatory	37,193	38,715	54,982	16,267
Total Administration Budget	69,605	71,470	94,374	22,904

www.hhs.gov/sites/default/files/fy-2024-budget-in-brief.pdf

www.whitehouse.gov/omb/budget/appendix/

Child abuse is often addressed by child welfare/protective services, police and/or Fire/EMT. However, there are many agencies that response to children in crisis.



IMPROVING THE CURRENT TECHNOLOGY & DATA METRICS

Can Technology & Data Science Create a More Effective Child Abuse Response Process?

The integration of technology is a pivotal component in streamlining an effective emergency response processes. By adopting technology, duplicative tasks are minimized, resulting in significant cost savings. Additionally, computers generate copious amounts of data that can be analyzed to develop innovative approaches to improve the response to children in imminent danger.

TO BEST USE TECHNOLOGY IN HELPING FAMILIES IN THE CHILD WELFARE SYSTEM AND AGENCIES WHO RESPOND WHEN CHILDREN ARE IN CRISIS, WE NEED TO FOCUS ON RACIAL LITERACY AND THE USER EXPERIENCE [UX] AND USER INTERFACE [UI].

RACIAL LITERACY: BREAKING FREE OF OLD RACE PATTERNS

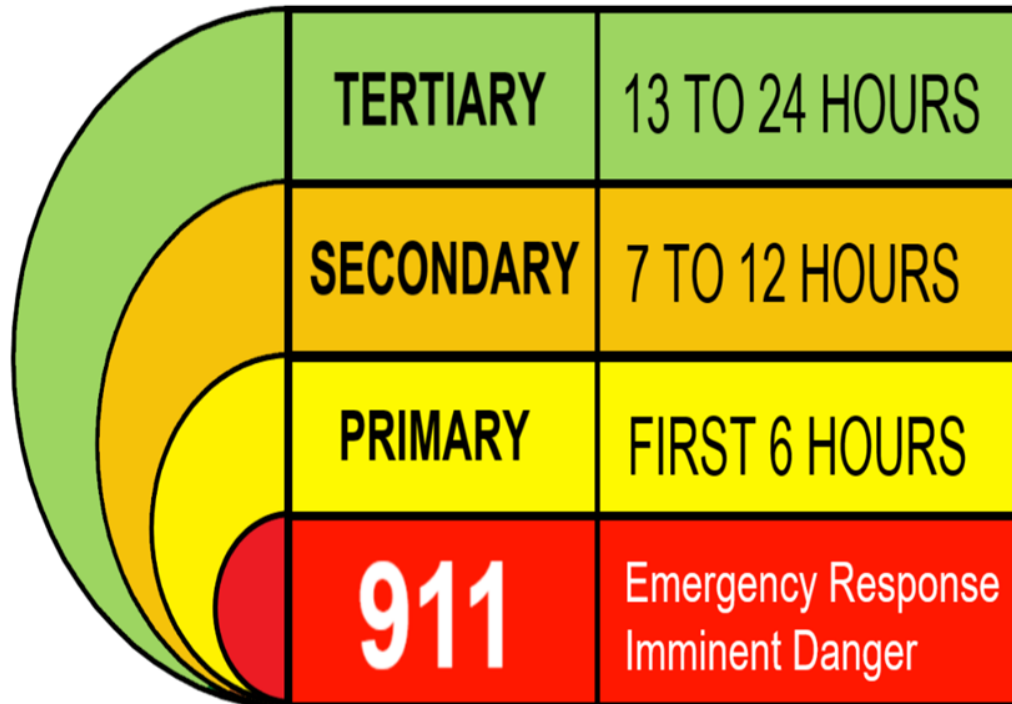
Racism is still here and continues to cause problems. Racial literacy offers a way to break free from old patterns. It is a skill that can be developed, a capacity that can be expanded. To advance racial literacy in tech requires three foundations:

- A deep understanding of how structural racism operates in algorithms, social media platforms, and technologies not yet developed
- An emotional intelligence concerning how to resolve racially stressful situations within organizations
- A commitment to take action to reduce harms to communities of color

https://datasociety.net/wp-content/uploads/2019/05/Racial_Literacy_Tech_Final_0522.pdf

It's important to note that machine learning models require ongoing training, validation, and refinement to ensure accuracy, minimize biases, and respect privacy and ethical considerations. These models should always be used in conjunction with human expertise and judgment to make informed decisions and avoid potential false positives or negatives.

PART 1 OF 3 MULTIAGENCY & MULTIDISCIPLINARY



STANDARDIZED
"RISK RESPONSE"
DATA PROTOCOLS



Real-time Multiagency and Multidisciplinary Response Protocols

- Calibration of the intervention for all First Responders
- Incorporate cultural/ethnic dimensions
- Increase "lessons learned" across multidisciplinary domains
- Gather 911 imminent response and Intervention raw data to identify patterns, trends, and characteristics for prevention efforts

PART 2 OF 3

BUILDING COLLABORATIVE TECHNOLOGY METHODS AND DATA COLLECTION PROTOCOLS FOR MULTIDISCIPLINARY CHILD ABUSE RESPONSE

Data management and governance manages high-quality data on which AI and ML learn - extracting high efficacy from algorithms

<https://www.analyticsinsight.net/artificial-intelligence/can-you-overcome-the-disadvantages-of-artificial-intelligence>

Data Condition: Measures data strength and validity. Data condition depends on specific user requirements driven by business needs, strategic goals, and business context. Data is in good condition when users trust the data to support key operational and decision-making processes. Also, one must *understand the entire data ecosystem*: data types, data flows, who uses the data, how they use it, and the **VALUE** of each data type for the business.

<https://www.anmut.co.uk/data-condition-what-it-is-why-it-matters/>

DATA DICTIONARY: A data dictionary is a collection of data - object name, data type, size, classification, and relationships with other data assets. According to IBM's Computer Terminology Dictionary, a data dictionary is a "centralized repository of information about data such as meaning, relationships to other data, origin, usage, and format. It assists management, database administrators, system analysts, and application programmers in planning, controlling, and evaluating the collection, storage, and use of data." By providing detailed metadata, a data dictionary serves the important purpose of creation of data products that can be shared both internally and with external groups. The data can be used to automate the provisioning and sharing of data, making it more efficient to collaborate and exchange data assets. The data dictionary ensures that everyone is on the same page and helps maintain data integrity and quality. High-quality data is vital for the accuracy and reliability of data products.

<https://atlan.com/purpose-of-a-data-dictionary/>

Field Name	Caption	Data Type	Field Size
str_first_name	First Name	Text	20
str_last_name	Last Name	Text	30
str_house_no	House Number/Name	Text	20
str_street	Street	Text	30
str_town	City	Text	30
str_county	County	Text	30
str_post_code	Post Code	Text	9
str_telephone	Telephone	Text	15
str_mobile	Mobile	Text	13
str_dob	Date of Birth	Date/Time	11
str_licence	Licence Number	Text	18

Gary Newport - Data Dictionary: Database Design 4 - Creating a Data Dictionary
<https://www.youtube.com/watch?app=desktop&v=QRMUReSENjU>

PART 3 OF 3 UX/UI - CREATING THE *RIGHT DATA* FOR FATAL CHILD ABUSE RESPONDERS

Government agencies are dependent on data to justify expenditures, especially when authoring child abuse intervention and prevention initiatives.

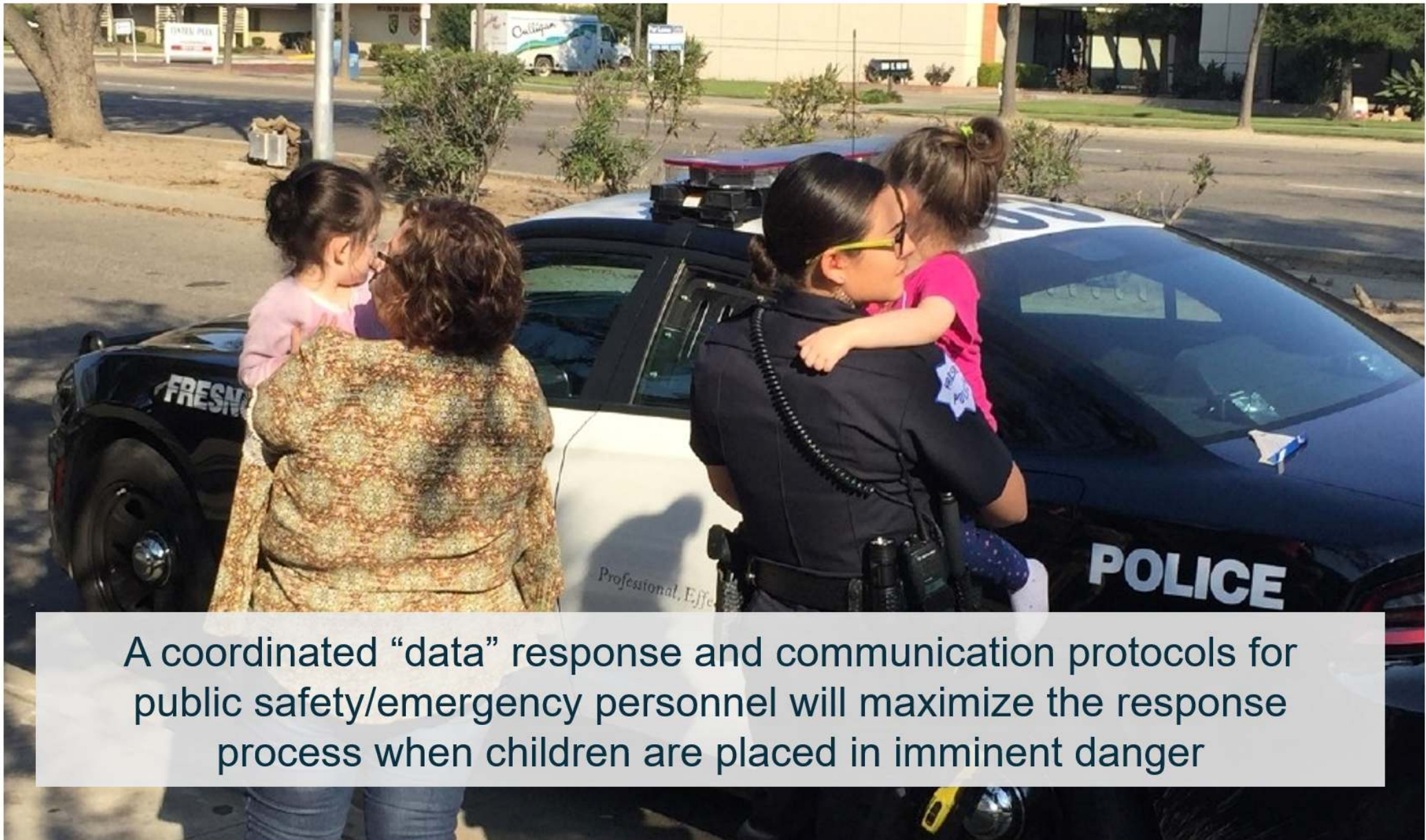
What happens when the technology does not incorporate mechanisms and/or correct “INPUT” methods to capture data when personnel are responding to children in imminent danger?

The **user experience (UX)** and **user interface (UI)** are crucial touchpoints from which all data-generating metrics stem. They encompass the logic, illustrations, labels, data visualizations, and navigational flow, from basic interactions like clicking or swiping [up/down/left/right] to transitioning to the next window. Moreover, UX and UI lay the groundwork for data concepts, enabling individuals to engage with the data-generating process based on their unique perspectives and comprehension. When technology seamlessly aligns with the end-user, it becomes intuitive.

1. What are the consequences when data elements are not incorporated, mislabeled, or not aligned in the UX/UI protocols? What impact will this have on your statistical outcomes?
2. What happens when you build technology without incorporating experience from the actual populations? Will the technology capture the data necessary for the creation of effective intervention and prevention in social and human services?

DATA TYPE	PURPOSE
Text	Any character up to 255 characters
Memo	Similar to text - 65,000+ characters
Number	Only numbers
Date/Time	Date or Time
Yes/No	Only TWO choices

UX USER EXPERIENCE	UI USER INTERFACE
CONCERNED WITH	
The feelings and emotions of a user when they interact with the product as a whole.	The look and feel of a product and what it conveys to the user.
GOAL	
To create a user journey that's delightful and easy to use.	To create an aesthetically pleasing interface that's optimized for devices.
ACCOMPLISHES GOAL THROUGH	
User testing, flowcharts, and wireframes.	Visual elements: color, typography, and layout.
DESIGNLAB Maria Myre - August 30, 2022 https://designlab.com/blog/what-is-the-difference-between-ui-and-ux	



A coordinated “data” response and communication protocols for public safety/emergency personnel will maximize the response process when children are placed in imminent danger



FATAL CHILD ABUSE
IF YOU CAN'T **MEASURE IT**
– YOU CAN'T **IMPROVE IT**
– YOU CAN'T **MANAGE IT**



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