

# Preventing Adverse Childhood Experiences (ACEs) & Promoting Resilience in New Mexico

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# Cheryl, 20 Years Old, First Clinic Visit Referred to FOCUS Program

- 3<sup>rd</sup> Pregnancy, the older child not in Cheryl's care
- Gave birth to Loretta
  - Heroin use in first 15 weeks
  - Opioid replacement Subutex
  - Term birth, no initial problems
- Loretta developed withdrawal
  - 14 day treatment for NOWS (NAS)
  - Discharged, finished medication
  - Eddie, her father, present for care
- Outpatient care starts
- Detailed history from Cheryl



# Key Points for Presentation

At the end of the presentation, the audience will take action to:

- Prevent ACEs through understanding that trauma effects cross generations, Cheryl's story
- Resolve health disparities by building multi-generation interventions, Cheryl, Loretta, and Eddie
- Build and support survivor oriented systems of care through collaborations as clinical and social policy

No actual patients depicted in presentation, stories are not actual patients

# Definition of Adverse Childhood Experiences (ACEs)

1. Emotional Abuse
2. Emotional Neglect
3. Physical Neglect → Directly affecting child from Caretaker Abuse/Neglect
4. Physical Abuse → Creates risk of toxic stress
5. Sexual Abuse
6. Mother Treated Violently
7. Household Substance Abuse
8. Household Mental Illness → Home environment creating toxic stresses
9. Parental Separation or Divorce
10. Incarcerated Household Member → Household Dysfunctions

Felitti VJ, Anda RF. Et al. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study." 1999. Am J Prev Med.

# Cheryl's History; 4 ACEs or More

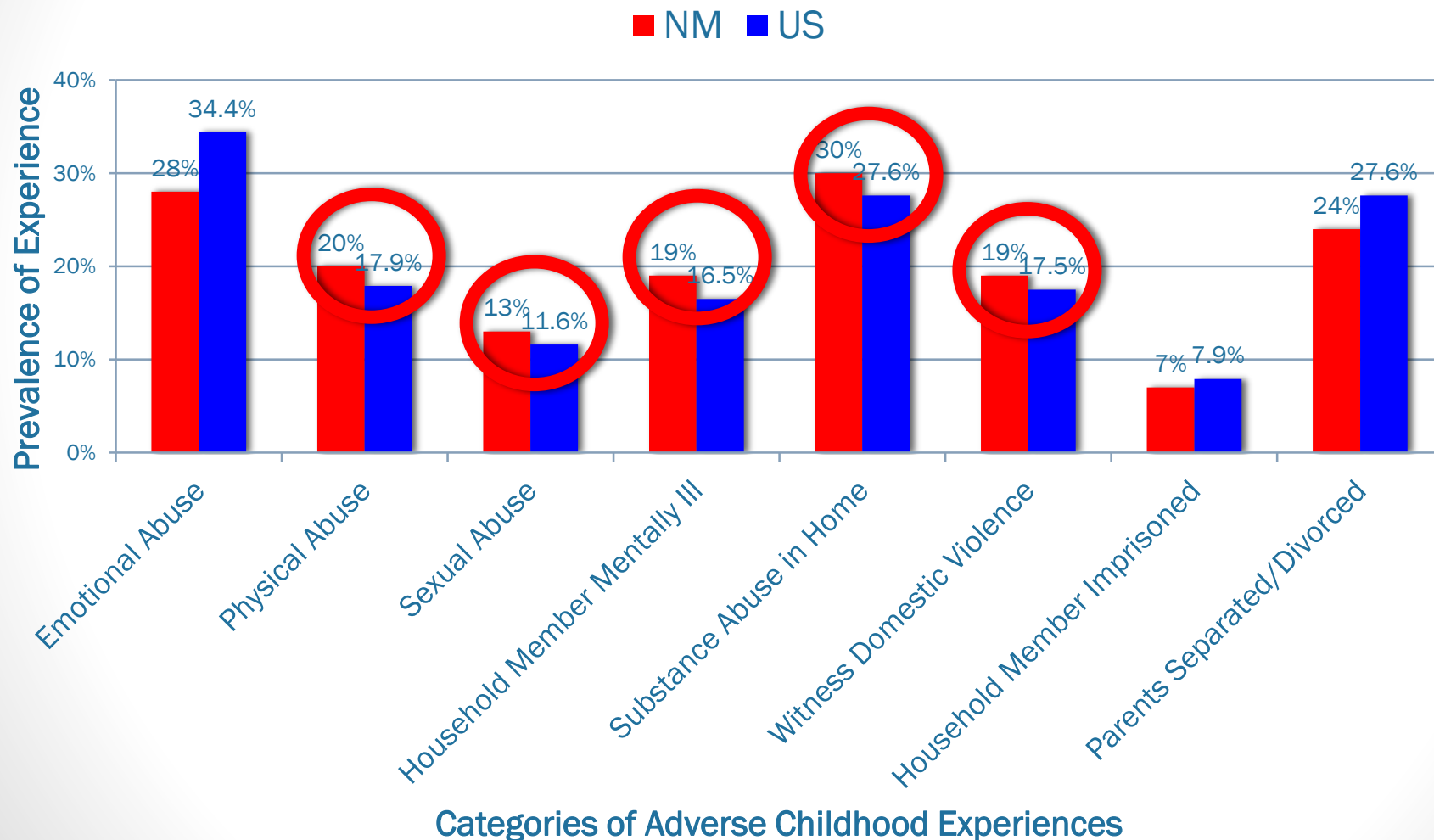
- Born to Christi, exposed to heroin in Christi's pregnancy
- Jay, her father, incarcerated in state prison (1)
- Christi did well as a parent in first 6 months, in treatment
- Jay came home, no treatment organized from prison
- Christi and Jay started using alcohol, then heroin (2)
- Cheryl saw parents using, Christi overdosed and died (3)
- Cheryl in relative foster care for neglect at 2 years (4)
- Cheryl had contact with medical care, childcare, schools
- Cheryl showed development delays, emotional withdrawal
- Systems did not address Cheryl's toxic stress or trauma

# ACEs Are Very Common in US\*

- 61.55% had at least 1 ACE (247,000 surveyed)
- 24.64% reported 3 or more ACEs
- Most common types of ACEs
  - Emotional abuse affected 34.42%
  - Parental separation or divorce 27.63%
  - Household substance abuse 27.56%
- 2.16 ACEs at <15,000/year; 1.39 at >50,000/year
- 1.68 ACEs for females, 1.46 for males
- 2.52 ACEs if multi-racial, 1.52 is Euro-American
- Therefore childhood trauma is very common

\*Merrick MT, *JAMA Pediatrics*, 2018

# % of NM Adults Reporting an ACE Compared to 23 States in US 2011-14\*

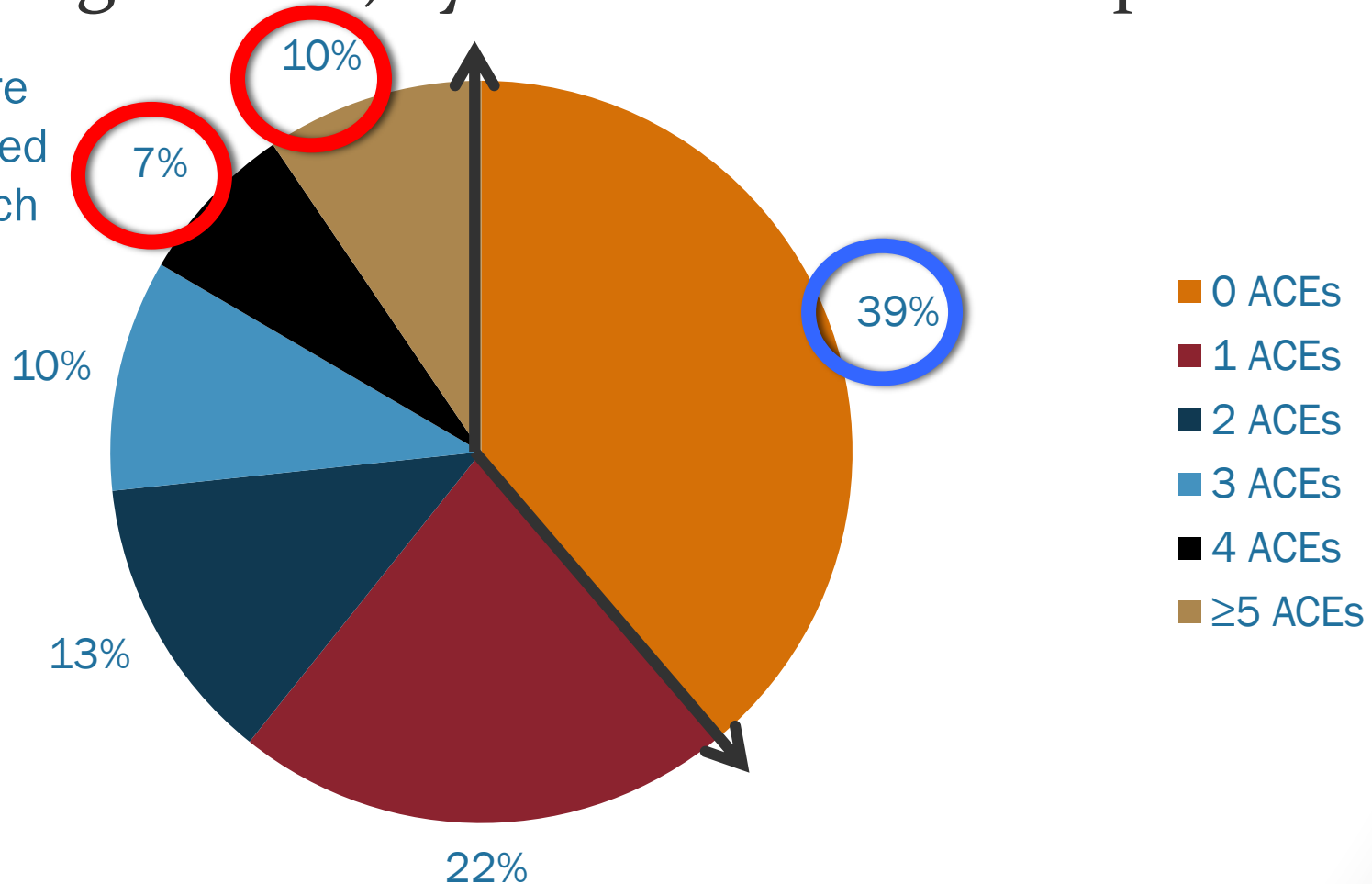


\*Merrick MT, *JAMA Pediatrics*, 2018

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# Percent of New Mexico Adults\* Aged >18 Years Reporting an ACE, by Number of ACEs Reported

4 or more  
associated  
with much  
higher  
health  
risks



\*n=5,271 (randomly selected New Mexico residents).

\*\*n=26,229 (includes randomly selected residents from AR, LA, NM, TN, and WA).

Adverse Childhood Experiences Report by Adults --- Five States, MMWR, December 17, 2010 / 59(49);1609-1613.



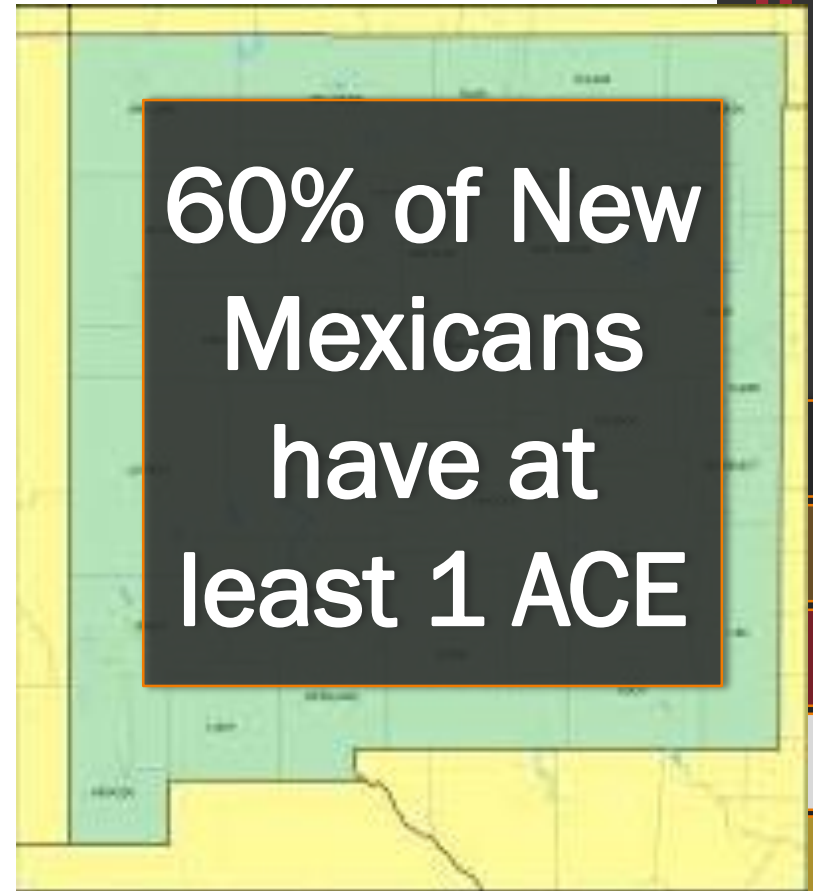
# ACEs in New Mexico

## Implications:

Elderly, Parents

School kids, toddlers

Professionals, providers



60% survive to meet us where we work

Those with ACEs are us

# What Are Cheryl's Health Risks

ACEs: Relative Risks of Lifetime Health Behaviors  
Associated with Risks for Early Death

ACE Score	Considered to Have Alcoholism*	Ever Injected Drugs*	Ever Attempted Suicide*
0	1.0	1.0	1.0
1	2.0	1.3	1.8
2	4.0	3.8	4.0
3	4.9	7.1	6.6
<u>&gt;4</u>	7.4	10.3	12.2

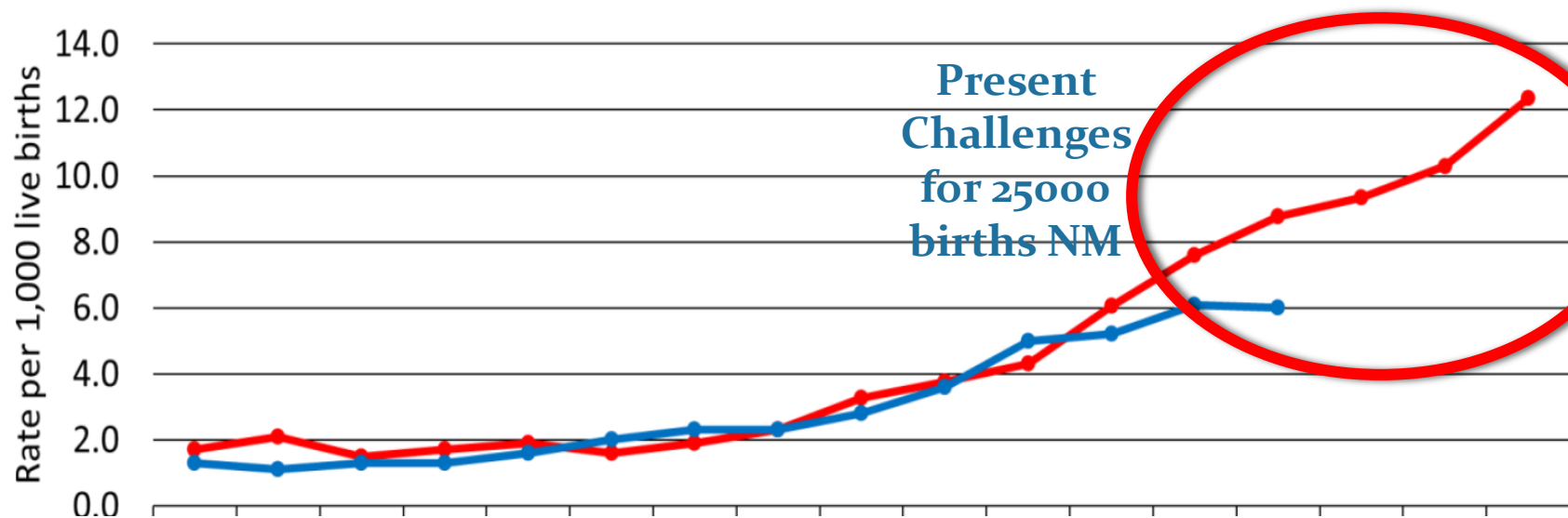
\* 0 adverse events set as standard referent risk 1.0

# Multi-Generation Interventions

- Prevention of ACEs within family systems
- Resolve health disparities for most affected groups by building multi-generation interventions
- FOCUS Program; example of program design
  - Families referred because infants have prenatal exposure
  - Parents receive primary care and substance use care
  - Clinical care to reduce risks of life shortening illnesses
- Home based early intervention; support brain development
- Home-based developmental support, therapy
- Care coordination with medical home, continuity
- Developmental progress is signal for recovery

# NOWS Trends NM and US

## Neonatal Opioid Withdrawal Syndrome (NAS) NM (2000-2016) & US (2000-2013)



Estimate 300 infants with NOWS per year

About half have diagnosis, so 600 with opioid exposure in pregnancy

Sources: US: Weighted national estimates from HCUP Nationwide Inpatient Sample (NIS), 2000, Agency for Healthcare Research and Quality (AHRQ), based on data collected by individual States and provided to AHRQ by the States. Total number of weighted discharges in the U.S. based on HCUP NIS = 36,417,565.

New Mexico: 2000-2016 Hospital Inpatient Discharge Data (HIDD). Not included: IHS, VA, out-of-state births

# FOCUS and Clinical Picture of Loretta's Altered Neuroreceptors

- Prenatal exposure alters brain chemical systems
- Problems from prenatal opioid exposure:
  - Loretta hypertonic from dopamine depletion after birth
  - Hard to handle, fussy, low regulation capacities
  - Feeding problems, hard to latch on for breastfeeding
  - Spits up after taking bottle of expressed breast milk
  - Cheryl and Eddie reach the limits of their parent knowledge
  - Cheryl feels stressed, has trouble with regulation
    - In past she turned to opioids or benzodiazepines to numb
    - Eddie feels angry, has trouble with regulation
    - They come to FOCUS clinic for Loretta's appointment

# Clinical Interventions

- 2 generation approaches for Loretta, Cheryl, and Eddie
- Cheryl most activated by feeding
  - Support her breastfeeding efforts
  - Decrease stimulus around Loretta to help latching (darken room, less noise)
  - Observe feeding in exam room
  - Discuss ways of managing stress
  - Guidance around sleep, always challenging
  - Screen Cheryl for depression, offer medication
  - Help Cheryl develop regulation skills
  - Continue strategies in FOCUS home visits



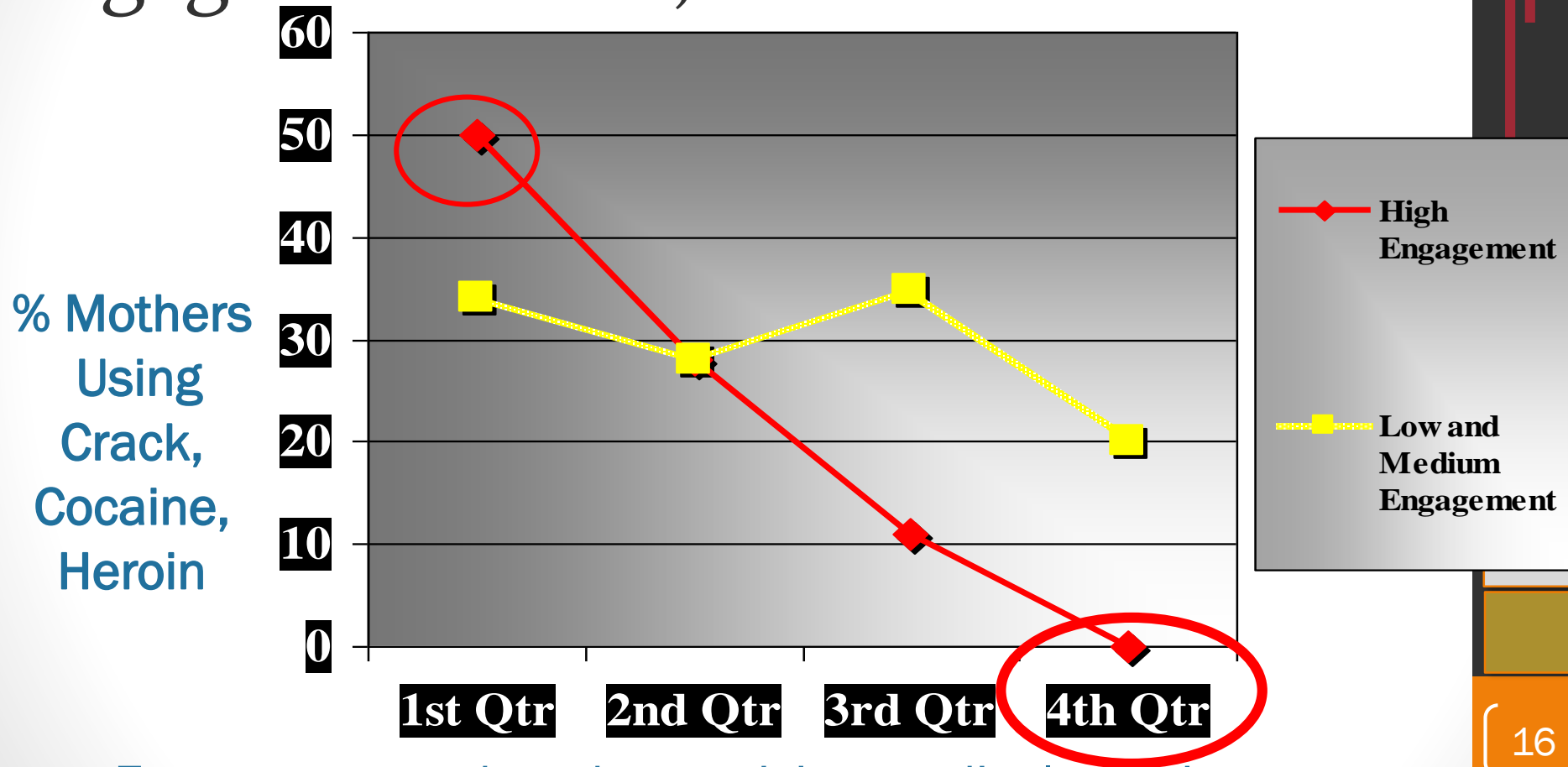
# Reducing Stress for Family

- Loretta's needs to manage overstimulation
  - Swaddling to help decrease motor stimulus
  - Better quiet alert state, more organized nursing
- Eddie; connect with counselor, parenting group





# Use of Cocaine, Crack, or Heroin by Engagement Level, First Year in FOCUS



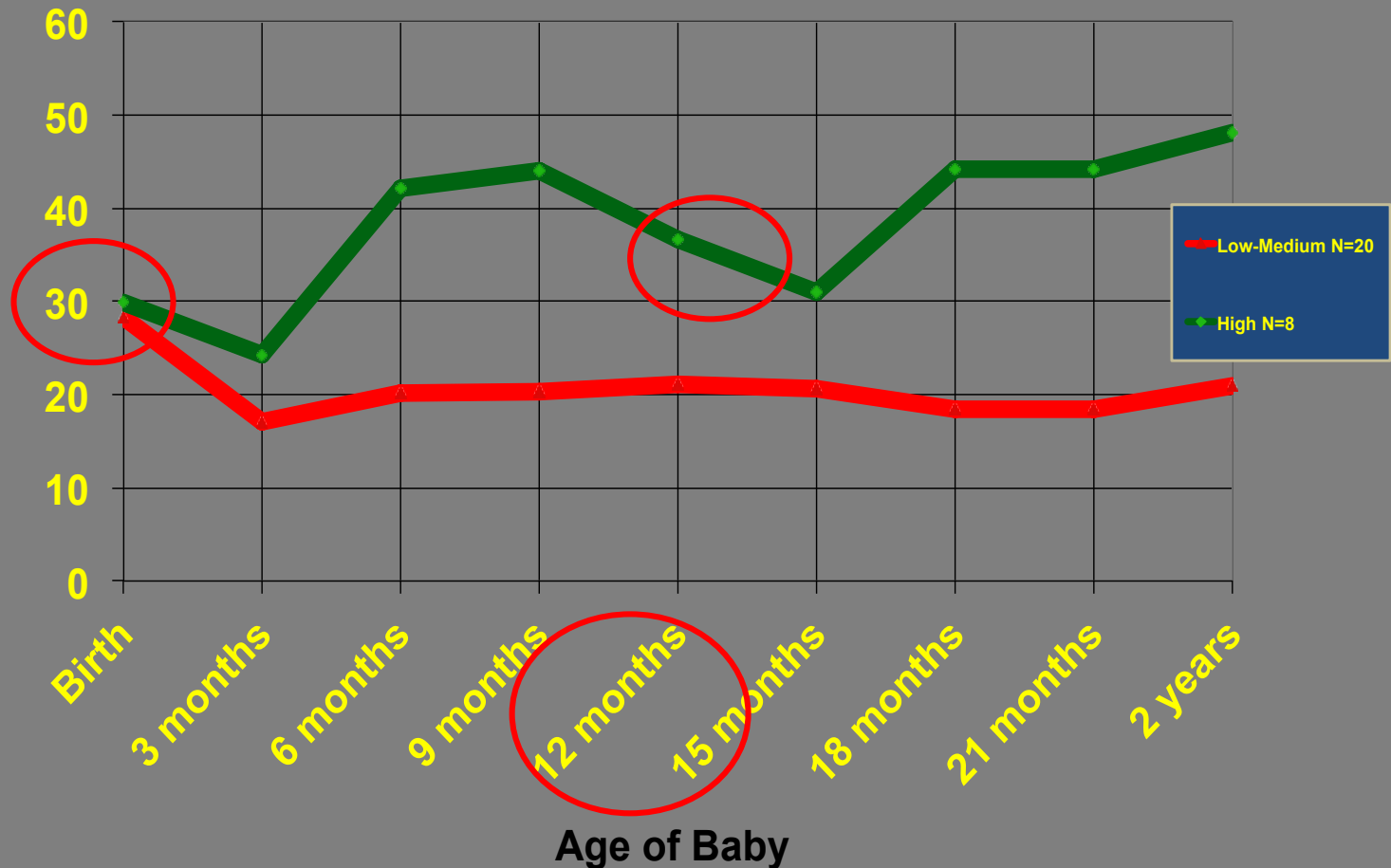
Engagement as kept home visits, medical appointments, follow through on developmental recommendations



# Engagement and Height Change

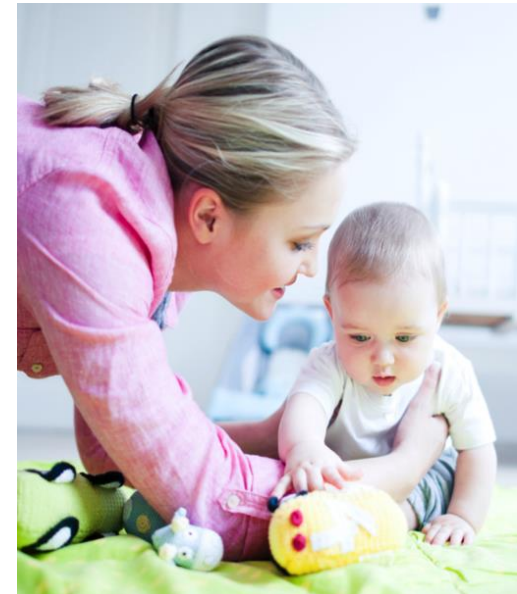
Standardized Length/Height Parameters (in percentiles) for Babies with Data from Birth to Two Years, by FOCUS Clinic Engagement Measures

Height of Baby  
(in percentiles)  
by Clinic  
Appointment  
Engagement  
Measures



# FOCUS Program Directed at 2 Brain Effects of ACEs, Cheryl and Loretta

- Loretta's brain has "deformation" from exposure
- Support of infant after receiving treatment for NOWS
  - Persistent heightened responses to noise, touch, light
  - Loretta is stiff, hard to relax neck, back, legs
  - Supported tummy time, baby PE
- Model how parents can help brains
- Encourage parents to play on floor
- Reduces risk of child neglect



# Reduce ACEs Effects on Parents

- Cheryl and Eddie's brains with “deformations”
  - Chronic opioid use changes opiate receptor systems
  - Also down regulates dopamine, serotonin systems
  - Buprenorphine saturates opiate receptors
  - Stabilizes neurotransmitters, helps restore equilibrium
- Home based early intervention
  - Higher risks of ACEs for infants when parents had ACEs
  - Provides concrete support to read infant cues
  - Supports positive touch to aid development
- Requires parents to change and stabilize for infant

# FOCUS Efforts for Parenting

- Home based case management
  - Helps Cheryl in her home with Loretta
  - Model support for infant development
  - Model emotional regulation
- “Educating” a parent is okay:
  - But not enough to achieve normal child development
  - Home support should model care for Loretta with Cheryl and Eddie
- Infant mental health therapy helps but is not enough for two brain development
- Services built to meet needs not driven by a “curriculum”



# Characteristics of Survivor Friendly Primary Care for Families

- Trauma-informed model of care
  - Expect probable underlying mental health challenges
  - Recognize relapse potential of substance use disorder
  - Avoids depersonalizing and stressful interactions that can themselves be traumatizing for patients
- Survivor Friendly Care for families
  - All of above and
  - Engage individual in specific view of health/function
  - Congratulate Cheryl for making it to clinic
  - Achieve continuity of care, build engagement

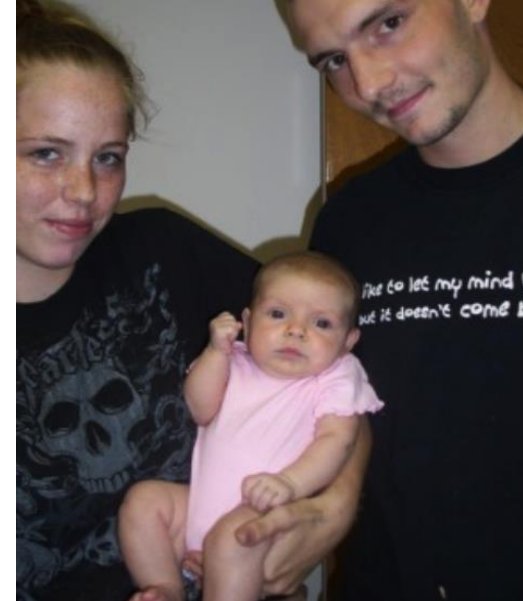
# Goal Question for Cheryl and Eddie

- What do you want for your child?
- Answer: Graduate high school!
- Questions
  - What do you need to be there?
  - What will we do at this visit?
- Create small daily changes
- Observe child's development
- Draw on resilience for health




# Issues of Resilience as Family

- Expect both parents to make changes
  - Become appropriate advocates
  - Normalize daily activity schedule
  - Take medication daily
  - Attend counseling to grow
- Resilience; learning new ways to handle stress
- Requires system to change for resilience
  - Build willingness by all providers to engage with family
  - Commit to continuity by providers, not episodic care



# Loretta Will Have Lowered Risk Health Behaviors Associated with ACEs



ACE score	Alcoholism	IV Drug Use	Attempted Suicide
0	1.0*	1.0*	1.0*
1	1.9	1.0	1.8



# Challenges for Future

- What happens to a baby like Loretta after intervention?
- Do Cheryl and Eddie stay sober?
- Developmental challenges persist for babies exposed
- Loretta will become what our society wants for them
- Educational outcomes come from early support
- Eddie and Cheryl will have the health we support
- Long term goal for the family and systems:

Parents love and advocate for children

Programs model caring for all parents

Build resilient patterns in families and systems

# Parenting Under the Influence



# Factors Promoting Family Resilience

- Adequate and appropriate parenting
  - Parents overcome their ACEs history through counseling
  - Prevent child neglect by meeting Loretta's needs
    - Safety, shelter, food; physical needs
    - Emotional and social needs; safety and belongingness
    - Developmental and intellectual; esteem needs
    - Independence, self responsibility
- Resilience is parenting consciously
- Acknowledge the individuality of each child
- Develop trauma-informed survivor organized services

# Key Agenda for Healthy Children

- Prevent Adverse Childhood Experiences
- Prevent child neglect at all ages
  - Prevent prenatal alcohol and drug exposure
  - No parenting under the influence of alcohol or drugs; other stuff
  - Meet all needs for a child and reduce energy on all wants
- Reduce the effects of Adverse Childhood Experiences
- Early behavioral and mental health care for young children
- Men and women must prevent unintended pregnancy
- Resilient systems of care for parents and infants
  - Two generation models of survivor friendly care
  - Change perceptions, financing, organization of services

# Thank You for Your Dedication

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Felitti VJ, Anda RF. Et al. "Relationship of Childhood Abuse and Household Dysfunction to Many of the Leading Causes of Death in Adults: The Adverse Childhood Experiences (ACE) Study." 1999. Am J Prev Med.

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