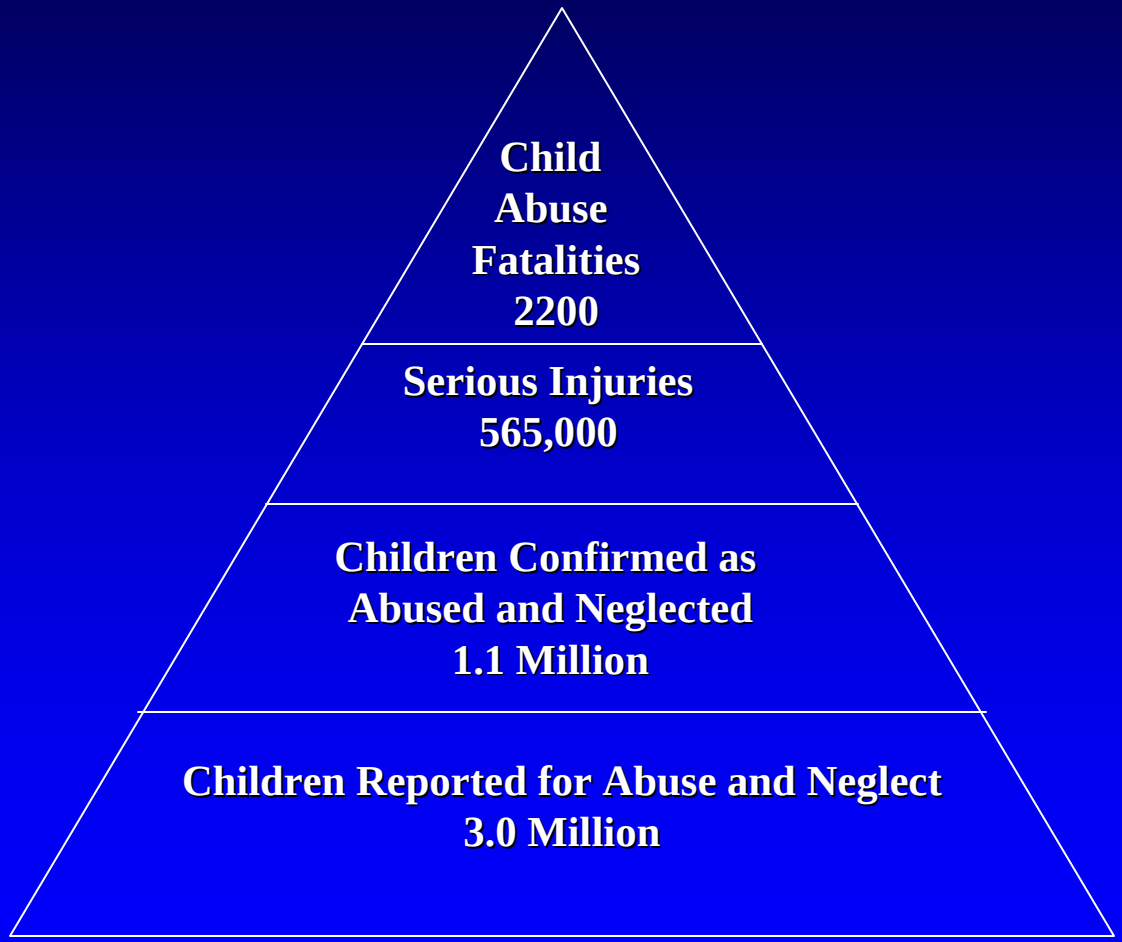
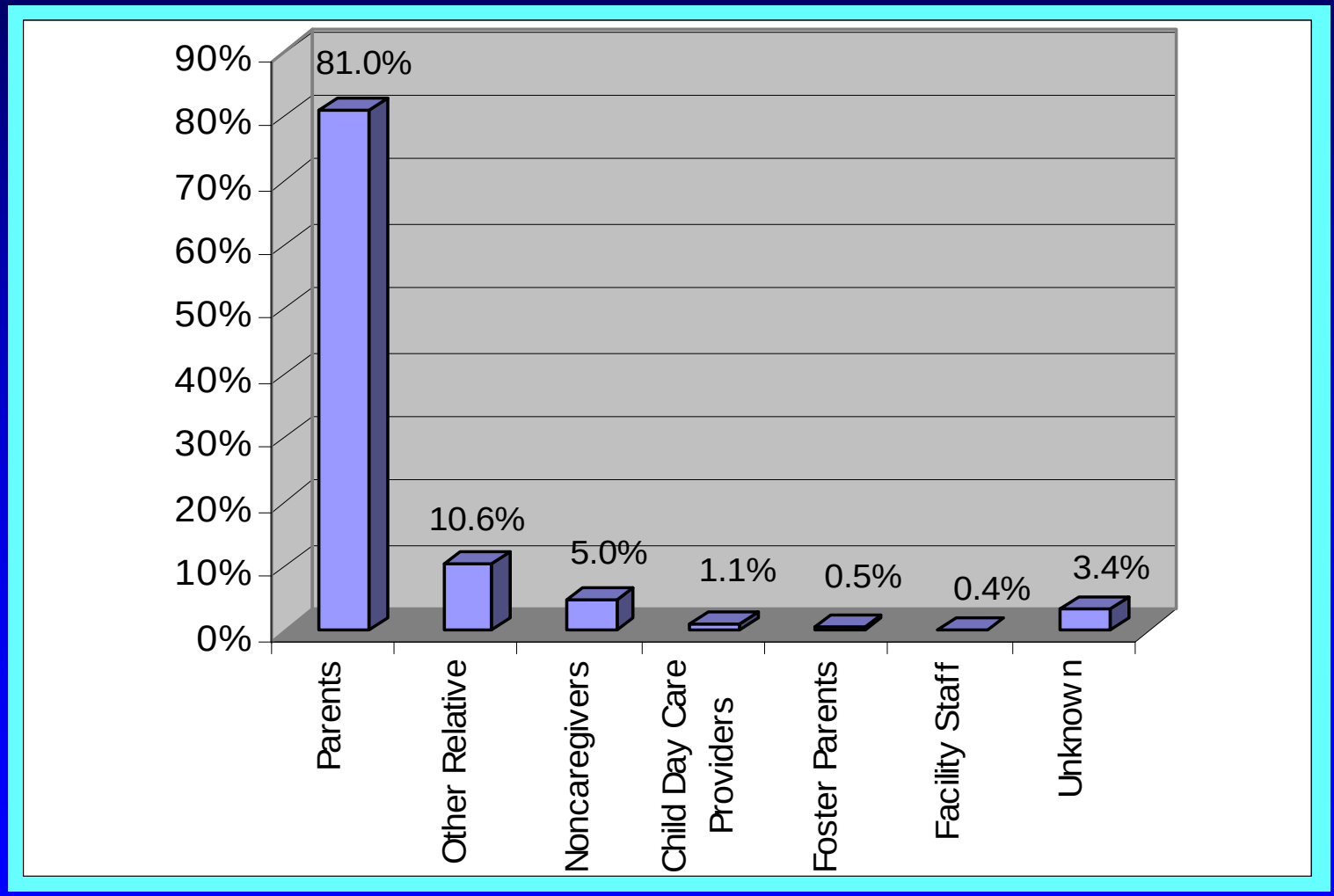
Child Abuse and Neglect, 1995



Source: CWLA Stat Book, 1997

Relationship of Victims to Perpetrators in Substantiated Cases



TC Trauma Child Characteristics

		Percent of Sample
Trauma Type	Sexual Abuse	57.9%
	Physical Abuse	56.5%
	Neglect	54.2%
	Witness to Violence	48.1%
	Medical Trauma	7.8%
	Other Trauma	35.9%
Multiple Traumas	No Combined Trauma	28.4%
	Two Traumas	18.3%
	Three or More Traumas	53.2%
Caregiver Factors	Substance Abuse	52.9%
	Mental Health Problems	50.5%

Risk Behaviors

		Percent of Samp
Behavior	Sexual Aggression	37.4%
	Physical Aggression	31.0%
	Aggression/Property	15.0%
	Suicidal Behavior	15.8%
	Substance Abuse	6.30%
	Impulsivity	30.0%
Multiple Risks	No Risks	43.1%
	One Risk	27.5%
	Two or More Risks	29.40%

TC Child Assessment Database:

- **Multiple traumas: Majority of children at site experience have experienced 3+ types of trauma.**
  - **Most common: sexual abuse, physical abuse, neglect**
- **Caregivers: Majority at site have substance abuse and/or mental health difficulties.**
- **Symptoms:**
  - **Clinically significant posttraumatic Sx, dissociation, anger, externalizing behaviors**
  - **One-third of children have one or more risk behaviors (suicidal ideation, physical or sexual aggression).**
- ***The vast majority of children exhibit a range of difficulties extending beyond typical PTSD symptoms***

Correlations of early childhood traumatic exposure severities with PTSD symptoms

	Reexperiencing	Avoid/Numb	Hyperarousal	Total
Neglect	.12	.08	.04	.09
Physical abuse	.01	.001	.10	.03
Sexual abuse	.13	.11	.11	.13
Emotional abuse	.06	.08	.04	.07
Separation and loss	.08	.02	.10	.07
Other traumas	.12	.14	.14	.15

PTSD = psychological and biological self-organization around imprints of particular experiences:

- MEMORY

Pervasive trauma = adaptation of total organism to the world as a dangerous place.

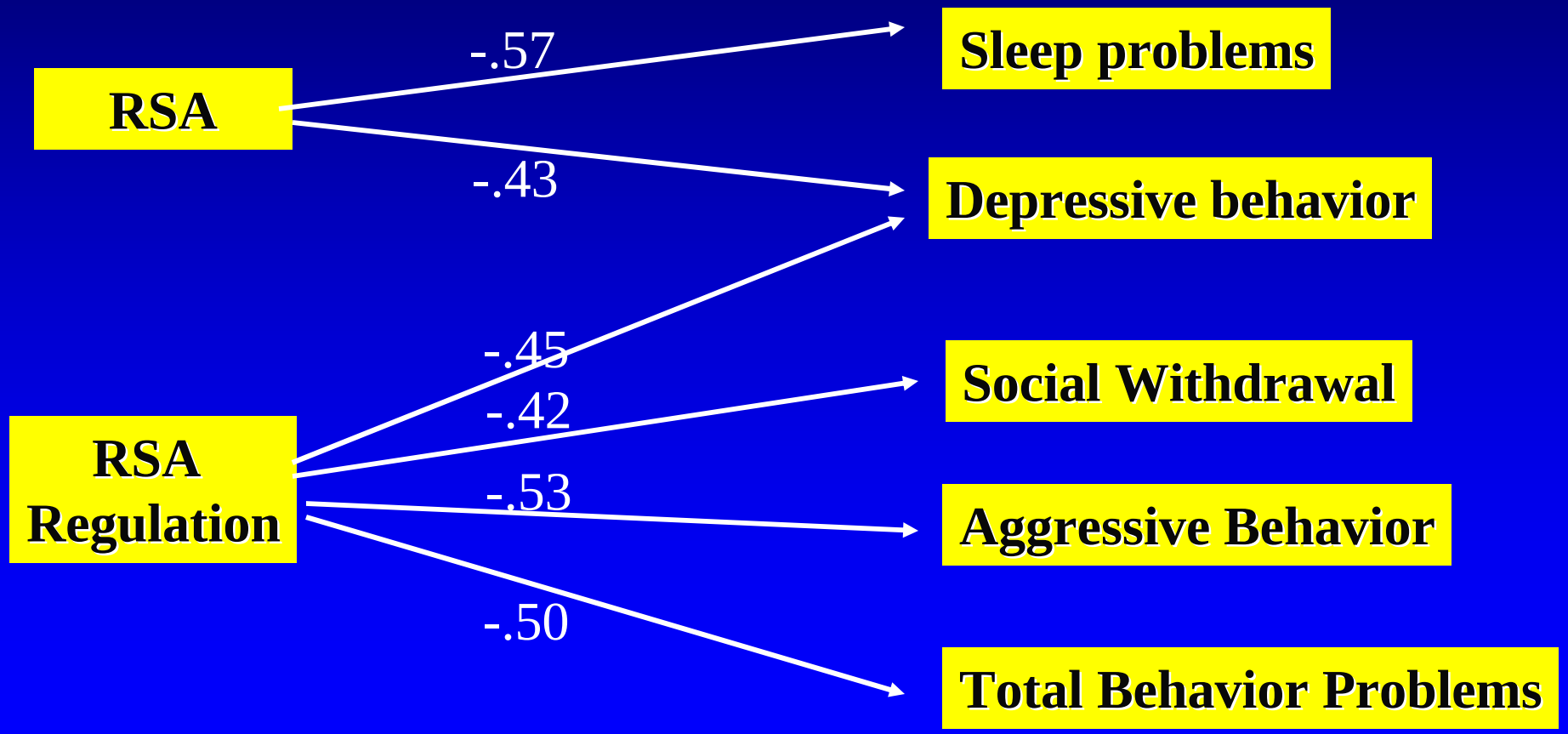
Alterations in:

- Physiology: capacity to modulate arousal
- Attention / cognition
- Threat perception
- View of oneself (damaged, disgusting, in hiding)
- Capacity to read social cues
- Capacity to hold self and others “in mind”
- Capacity to maintain interpersonal boundaries

Altered self- regulatory processes

- **Affect modulation**
- **Uncontrolled anger**
- **Attentional difficulties**
  - Difficulty stopping motor action
  - Difficulty planning and “holding things in mind”
- **Dissociative problems**

Vagal Regulation and pre-school behavior problems



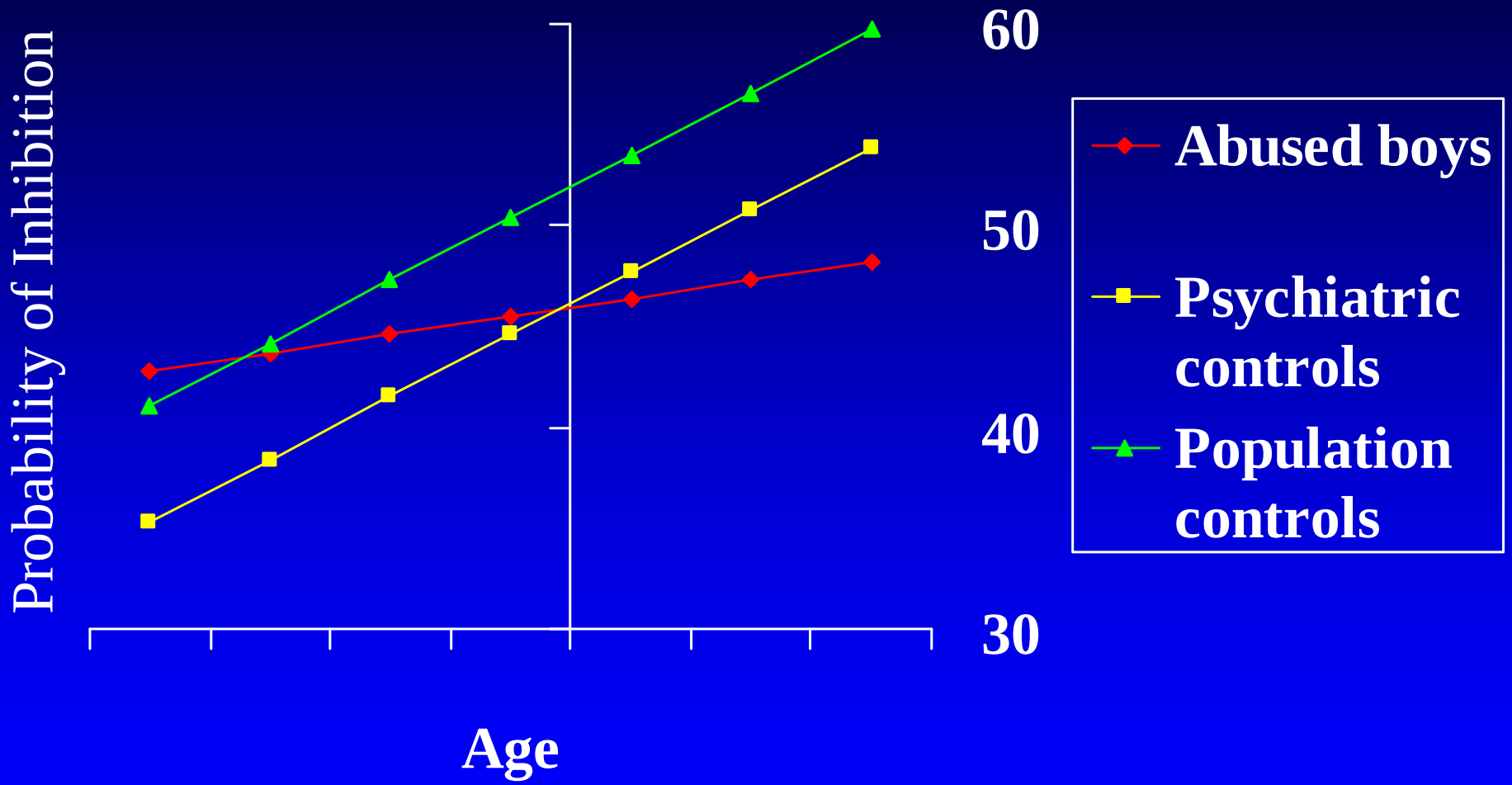
Porges, Roosevelt, Portales & Greenspan (1996): Developmental Psychobiology

Executive controls of behavior

Enrico Mezzacappa

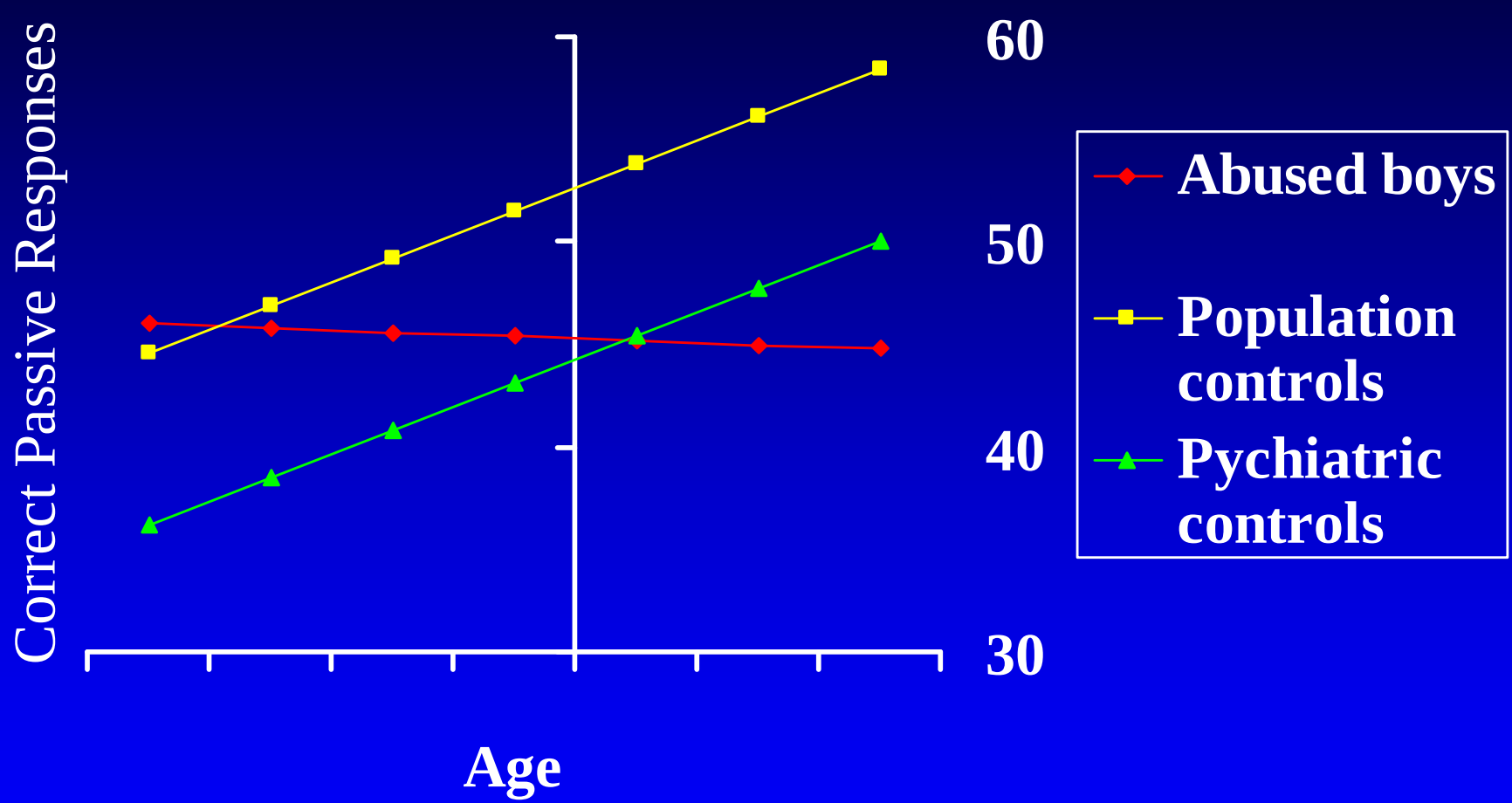
- Directing and sustaining attention,
- Planning actions,
- Anticipating consequences,
- Inhibiting inappropriate behavior,
- Initiating purposeful sequences of behavior,
- Monitoring the outcome of behavior,
- Interrupting or modifying unsuccessful behaviors

Figure 1: Stop Task



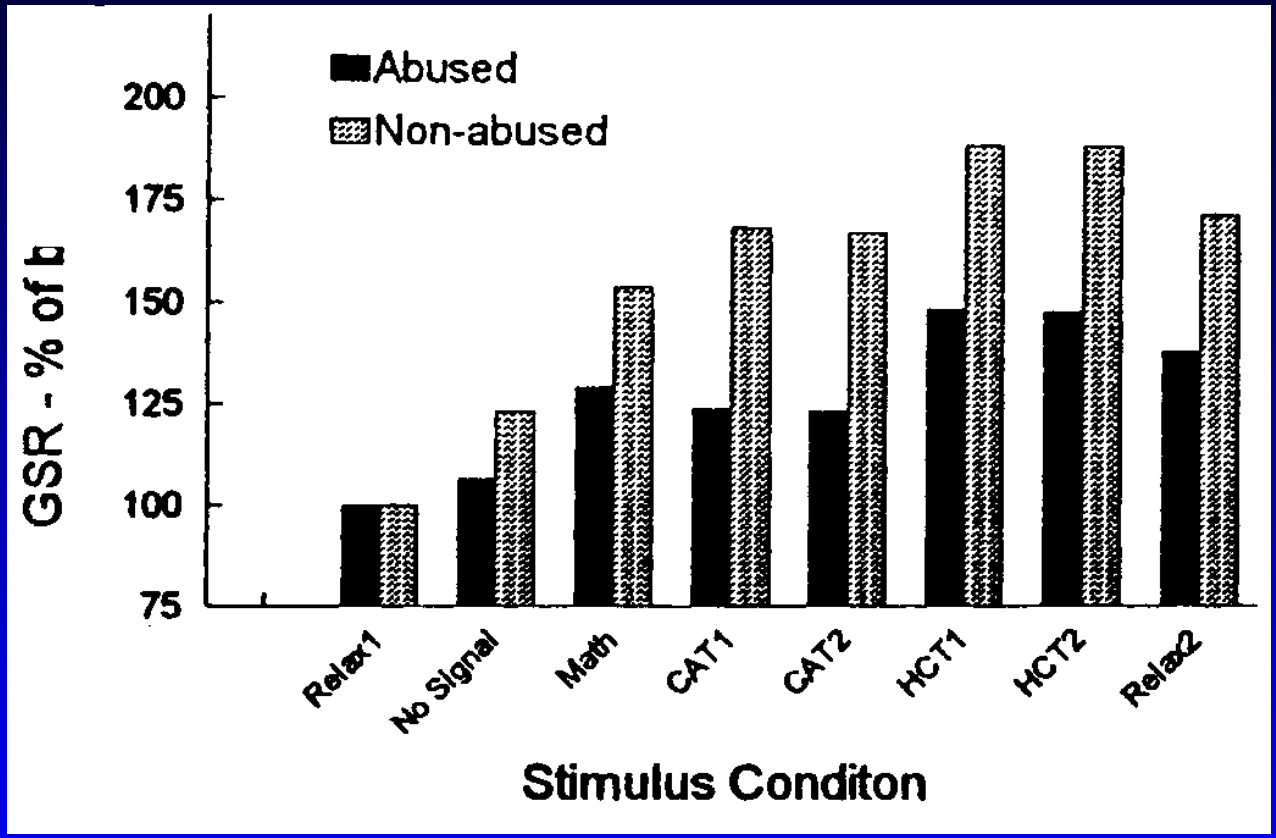
Mezzacappa et al, 2001

Figure 2: PAL Task



Mezzacappa, 2001

Capacity to activate in response to learning tasks



Mean % of baseline GSR in each stimulus condition for child abuse and control groups. 1) Relax (no signal), 2) math calculations, 3, 4) Children's Apperception Test Part 1 and 2; 5, 6) Halsted Category Test, Part 1 and 2, 7) Relaxation condition – post).

J Am Acad Child Adolesc. Psychiat, 2001

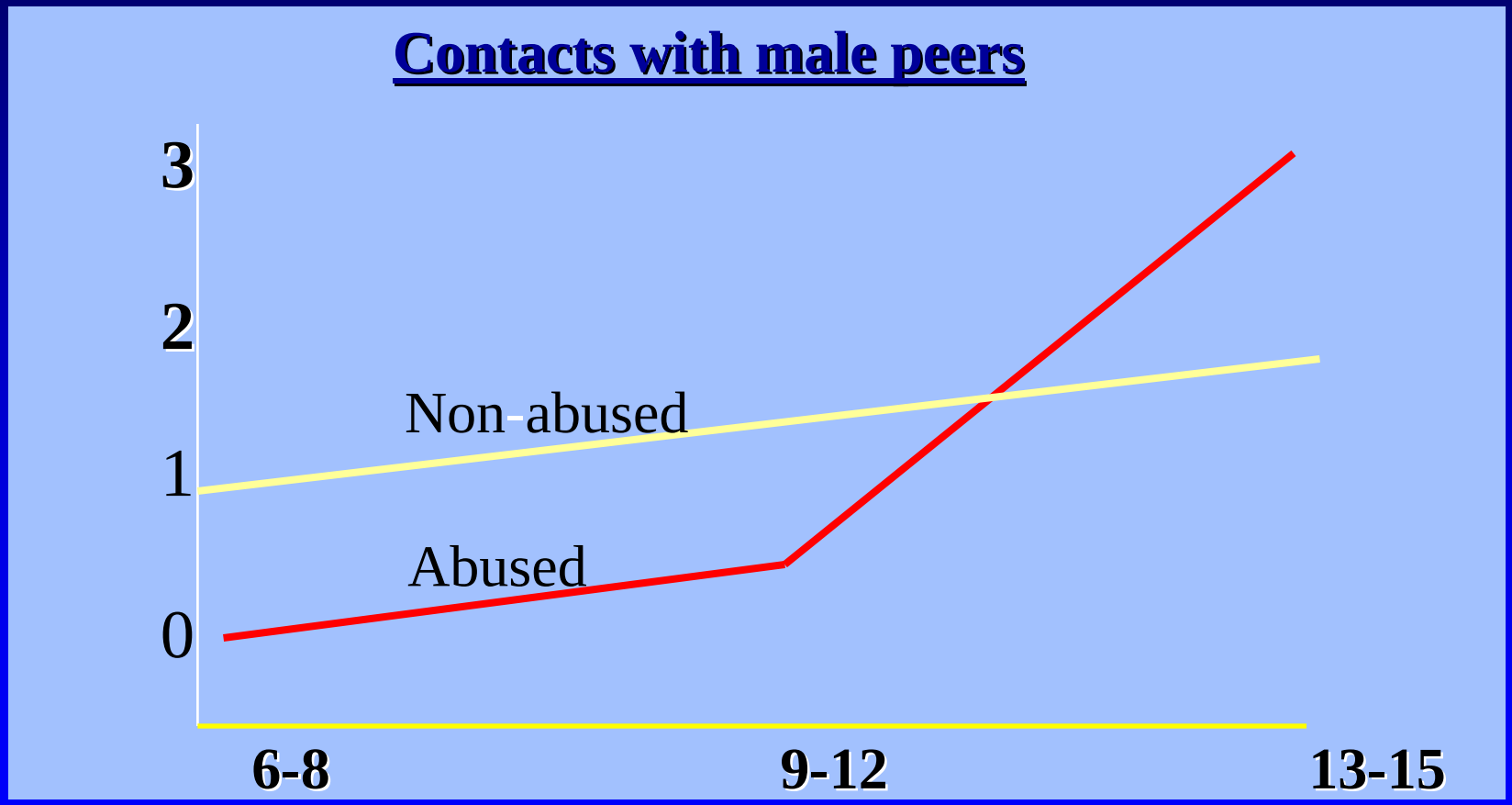
SUBCATEGORIES	EARLY ONSET ABUSE (≤14) (n=149)	ADULT ONSET ABUSE (>14) (n=87)	DISASTER (n=59)	
Affect dysregulation	77	66	38	**
Anger	77	61	33	**
Self-destructive	62	36	21	+
Suicidal	66	39	12	** +
Sexual Involvement	81	66	9	**
Risk Taking	54	26	16	+
Amnesia	78	46	15	+
Dissociation	80	59	44	+
Personality damage	72	53	26	** +
Shame	69	39	17	** +
Loss of trust	71	56	26	**
Victimizing others	27	8	0	+
Somatic problems	69	60	29	**
Chronic Pain	54	43	28	
Cardiopulmonary	71	60	33	**
Hopelessness	75	64	38	**

van der Kolk et al DSM IV Field Trial, 1994

Putnam et al: prospective study of sexually abused girls

Biology: alteration in HPA feedback loop:

Testosterone	**28 (A)**	**5 (C)**
Androstendione	**120 (A)**	**48 (C)**



Increased # pregnancies, drug abuse, sexually provocative

COMPLEX PTSD (DESNOS)

(DSM IV p.428 Associated features of PTSD)

1. Impairment of Affect Regulation

2. Chronic destructive behavior
   - self-mutilation
   - eating disorders
   - drug abuse, etc.

3. Amnesia and Dissociation

4. Somatization

5. Alterations in relationship to self

7. Distorted relations with others

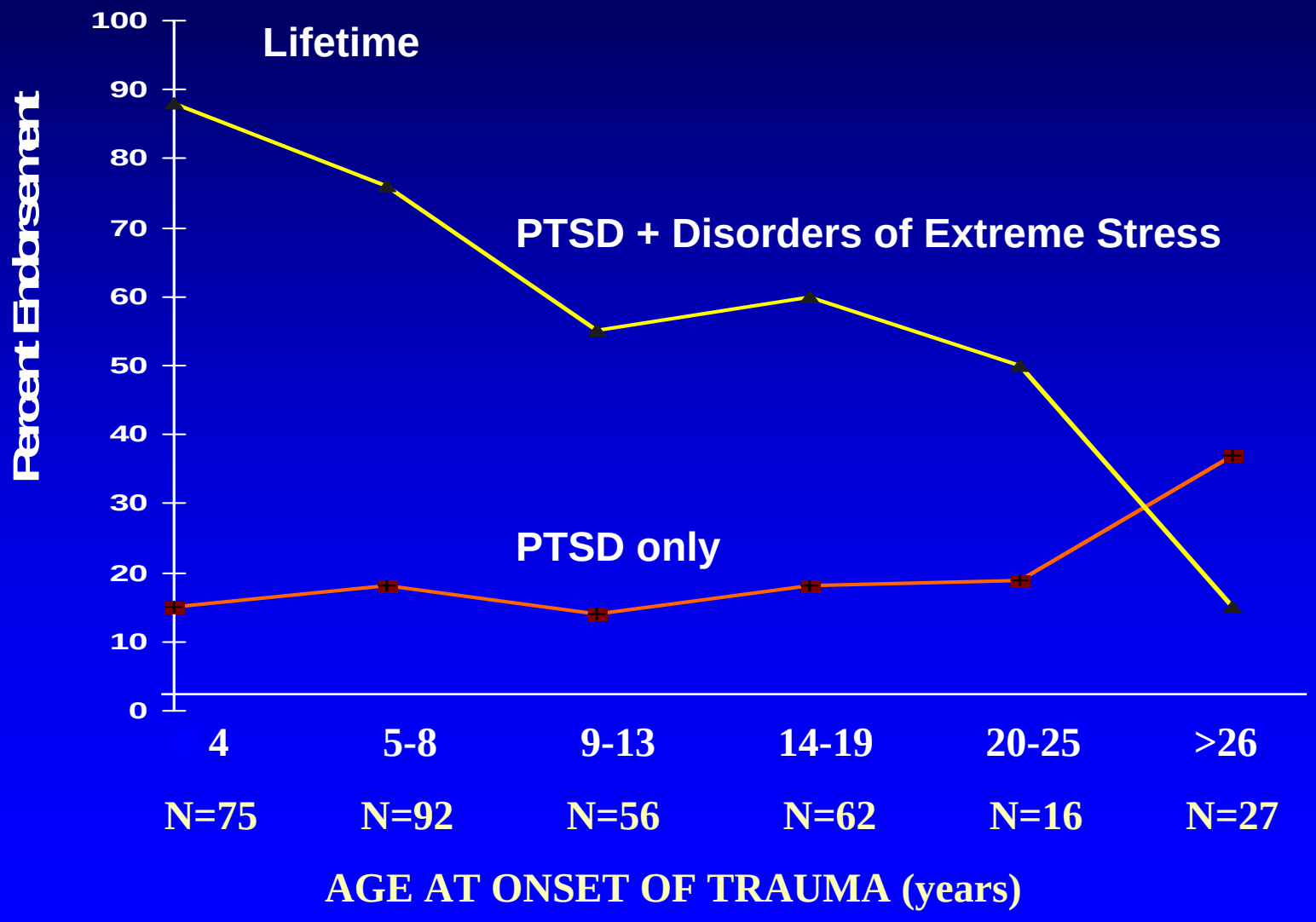
8. Loss of sustaining beliefs

DSM IV Field Trial (van der Kolk et al, 1996)
% Endorsement by Trauma category

	Abuse <14 (N=148)	Abuse >14 (N=87)	Disaster (N=59)
Affect Dysregulation			
affect modulation	77	67	37
unmodulated anger	76	60	32
self-destructive	62	37	22
suicidal behavior	67	39	12
unmodulated sex	81	67	29
Dissociation	88	67	47
Somatization	76	69	29

DSM IV Field Trial for PTSD

van der Kolk, Pelcovitz, Roth & Mandel, 1994



Correlations of early childhood traumatic exposure severities with Complex PTSD symptoms

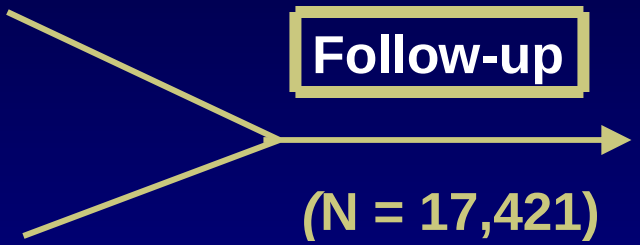
	Affect Dysreg	Dissociation	Self-perception	Relationships	Beliefs
Neglect	.04	.09	.15	-.02	.08
Physical abuse	.17	.25*	.26*	.18	.25*
Sexual abuse	.18	.22	.26*	.03	.03
Emotional abuse	.32**	.26*	.34**	.25*	.41**
Sep. and loss	.03	.09	.07	.08	.02
Other traumas	.14	.18	.15	.27*	.34**

*

** $p < .01$ * $p < .05$

ACE Study Design

Survey Wave I--70% response (9,508/13,494)



Survey Wave II--65% response (8,667/13,330)

All medical evaluations abstracted from both waves

Mortality
- **National Death Index**

Morbidity
- **Hospital Discharge**
- **Outpatient Visits**
- **Emergency room visits**
- **Pharmacy Utilization**

Percent reporting types of Adverse Childhood Events (ACE)

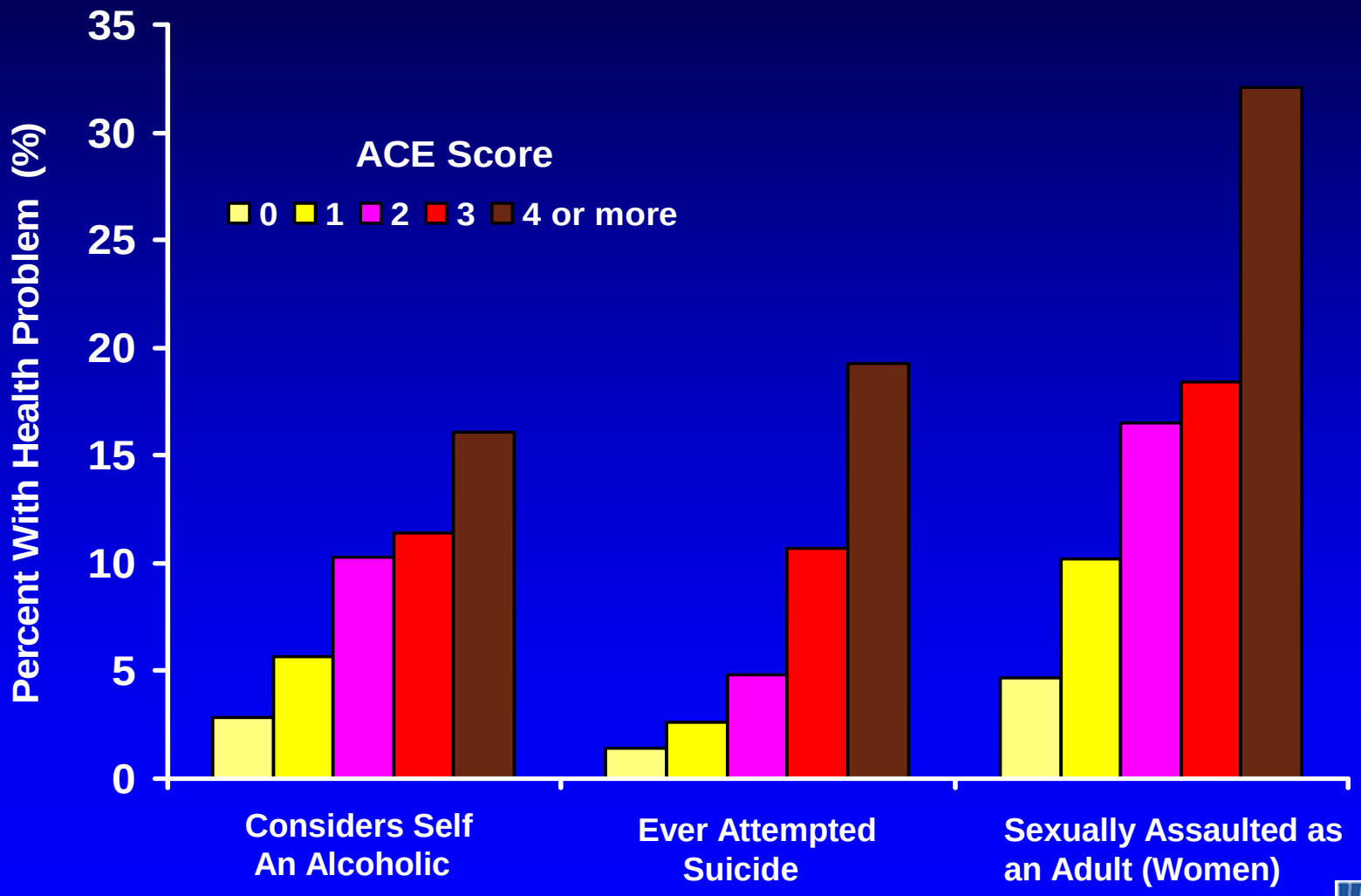
Household exposures:

Alcohol abuse	23.5%
Mental illness	18.8%
Battered mother	12.5%
Drug abuse	4.9%
Criminal behavior	3.4%

Childhood Abuse:

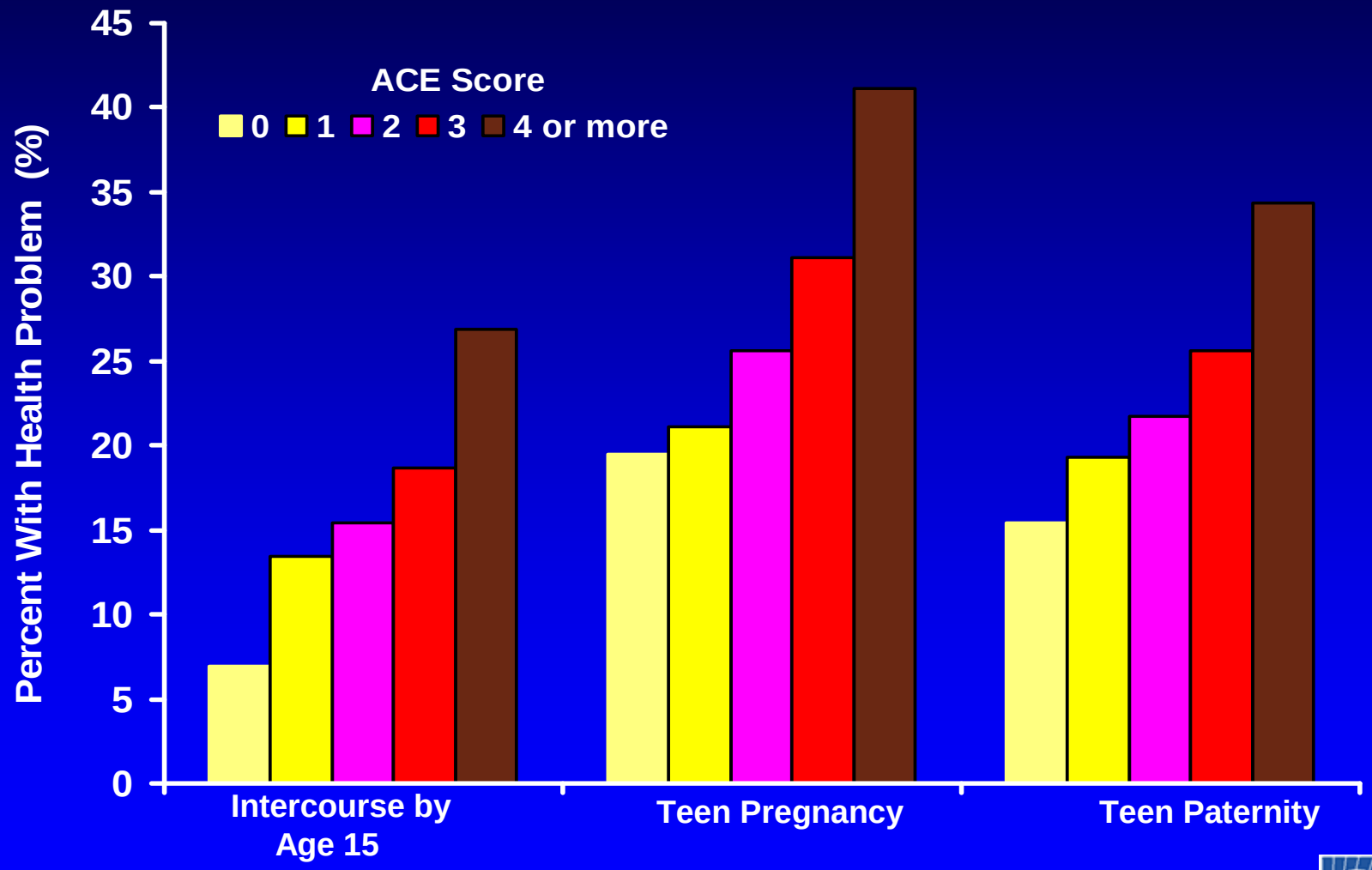
Psychological	11.0%
Physical	30.1%
Sexual	19.9%

Adverse Childhood Experience (ACE) Score and Alcoholism, Suicide Attempts, or Sexual Assault

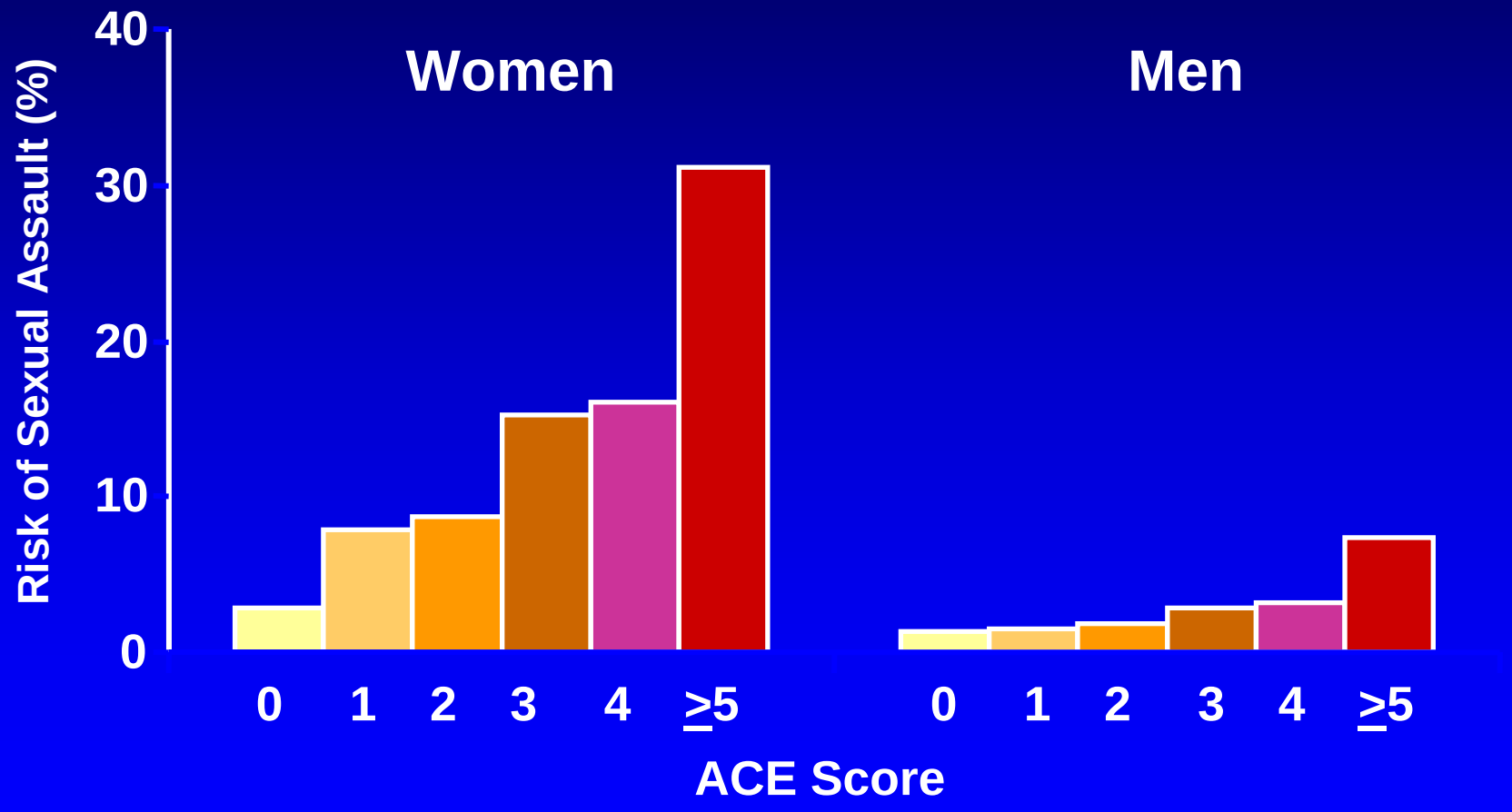


Anda et al: Sample of 17,000 subjects in medical clinic @Kaiser

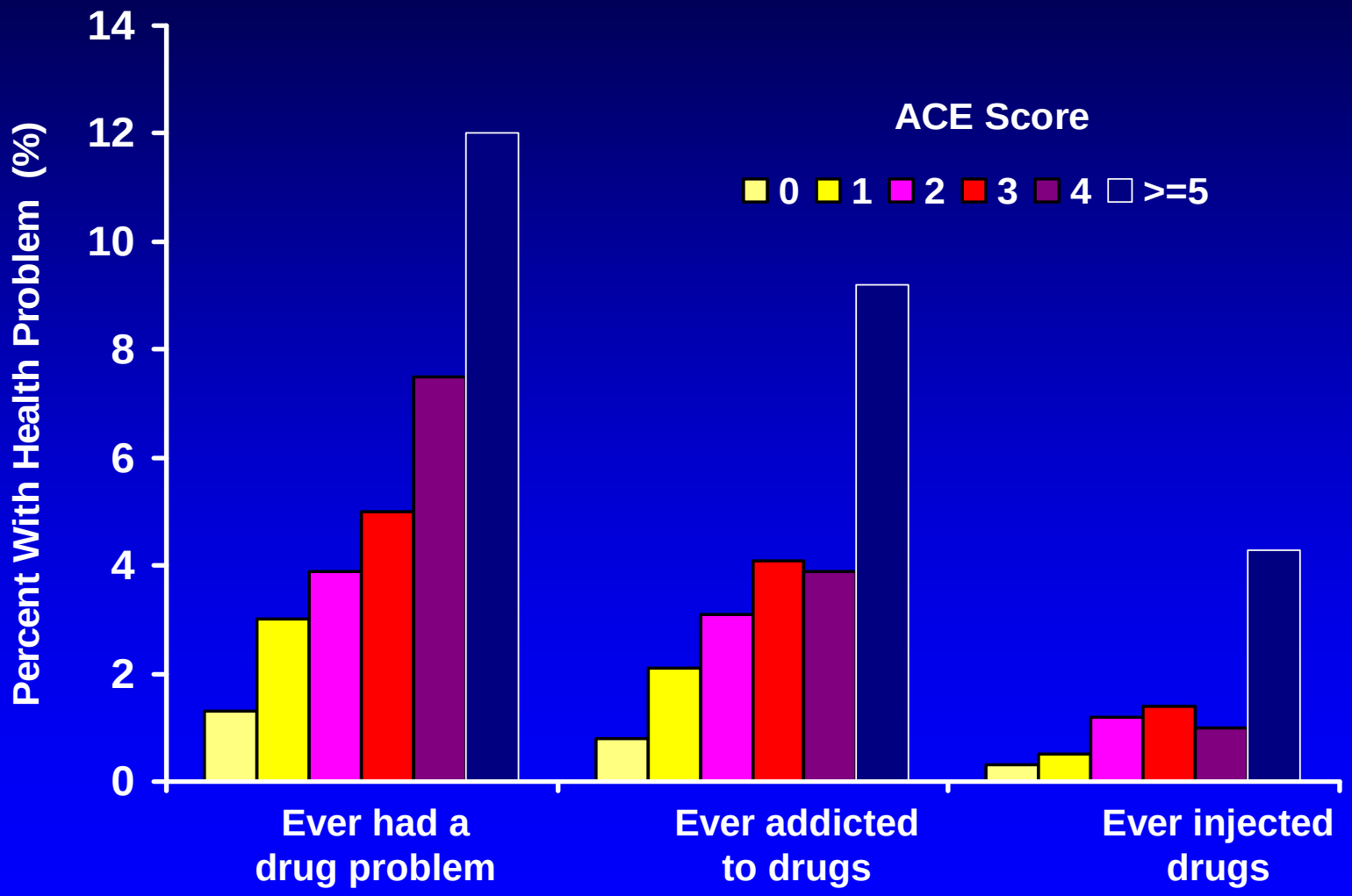
ACE Score and Teen Sexual Behaviors



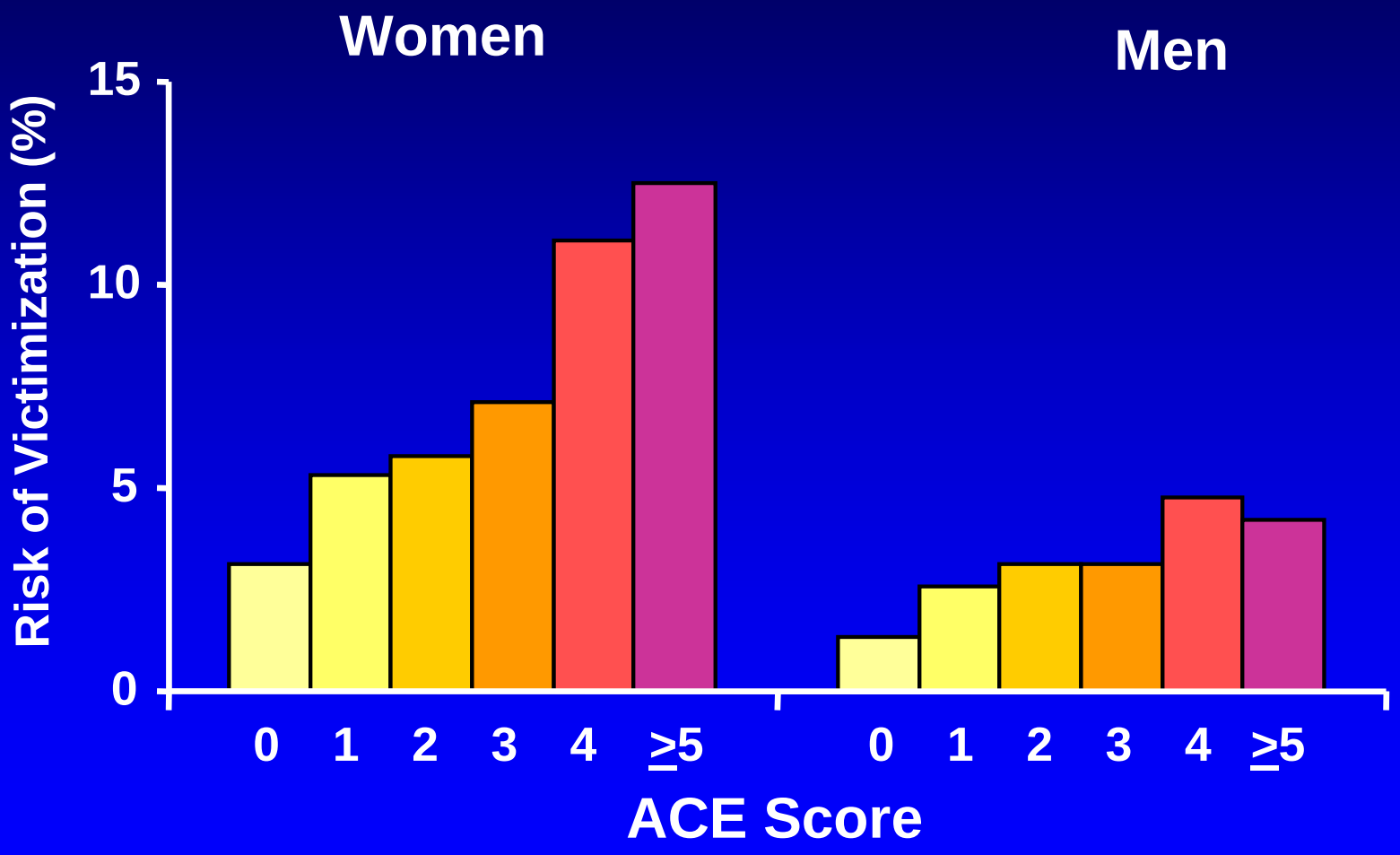
ACE Score and the Risk of Being Sexually Assaulted as an Adult



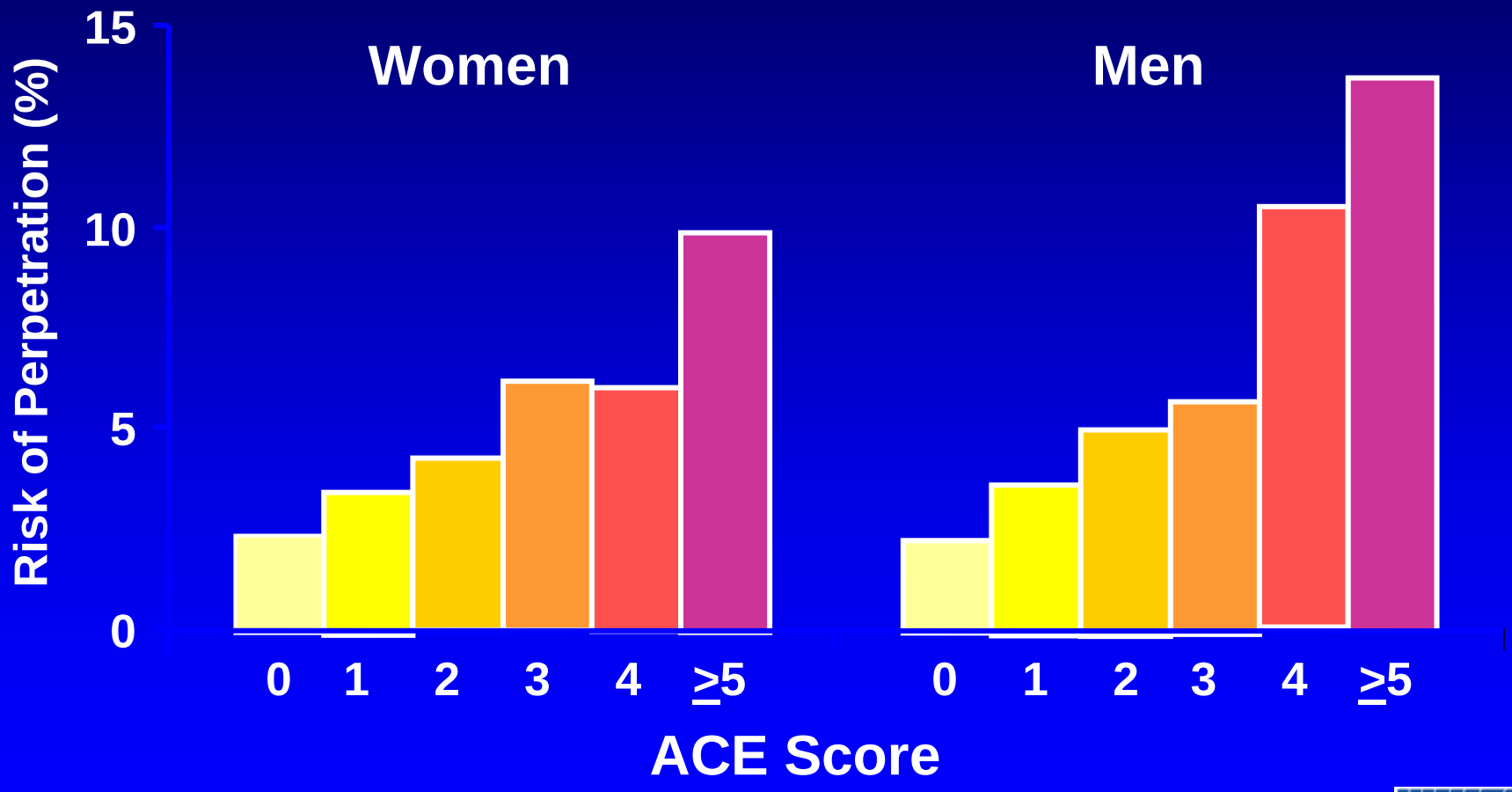
ACE Score and Drug Abuse



ACE Score and the Risk of Being a Victim of Domestic Violence



ACE Score and the Risk of Perpetrating Domestic Violence



Estimates of the Population Attributable Risk* (PAR) of Adverse Childhood Experiences for Selected Outcomes in Women

Mental Health:	PAR
Current depression	54%
Depressed affect	41%
Suicide attempt	58%
Drug Abuse:	
Alcoholism	65%
Drug abuse	50%
IV drug abuse	78%
Promiscuity	48%
Crime Victim:	
Sexual assault	62%
Domestic violence	52%

Based upon the prevalence of one or more ACEs (62%) and the adjusted odds ratio ≥1 ACE.

Prevalence of Psychiatric Disorders in Sample of 204 Physically and Sexually Abused Children

		ABUSE GROUPS					
	Total	Boys	Girls	Boys	Girls	Boys	Girls
Diagnoses	%	%	%	%	%	%	%
Separation Anxiety/Overanx	**59**	44	**58**	48	**100**	**59**	**79**
Oppositional Defiant Disorde	**36**	46	22	**56**	20	**64**	47
Phobic	**36**	44	36	24	30	25	**58**
PTSD	**34**	20	35	18	50	58	53
ADHD	**29**	**40**	22	**36**	10	**67**	26
Conduct Disorder	**21**	**44**	11	21	10	67	21
Dysthymia	**19**	16	13	24	20	17	42
Obsessive-Compulsive	**14**	0	14	18	20	8	27
Major Depression	**13**	12	11	12	20	8	32
Avoidant	**10**	12	7	18	30	8	0
Bipolar Disorders	**9**	4	9	9	20	0	21
		Sexual (N=127)		Physical (N=43)		Both (N=34)	

Note: 62% of subjects were outpatients, 25% inpatients, and 13% were referred by local agencies

Source: Ackerman et al. "Prevalence of Post Traumatic Stress Disorder and Other Psychiatric Diagnoses in Three Groups of Abused Children (Sexual, Physical, and Both)." *Child Abuse and Neglect*, 1998, Vol. 22, No. 8.

- Lack of “self” (I am , I know, I stand for..)
- Lack of ‘voice’
- Lack of boundaries
- Poor peer relationships

MEDICAID POPULATION, MASSACHUSETTS N = 384,046

	IP Days	IP Admits	24hr Crisis	ARTP	DayRx
PTSD	8,536	622	38	962	9,360	15,873
DID	7,598	926	45	219	59	2,601
BIPOL	869	72	34	153	100	2,398
DEPRES	836	89	10	552	3,561	7,009
PANIC	5,036	644	55	181	83	1,989

8,536 X $550= $47,000,000

MEDICAID POPULATION, MASSACHUSETTS N = 384,046

PTSD	Depression	Panic	Bipolar	DID
22,802	22,897	13,281	1,463	1,228

PTSD + Depression 2,986

PTSD + Panic 1,277

PTSD + Bipolar 217

PTSD/DID 669

Total PTSD 27,950 = 7% of total Medicaid population

Macy, 2002

Developmental Themes

- Traumatic stress, for a child, must be understood within a framework that recognizes a child's developmental level at the time of the trauma. To understand the effects of trauma on a child, one must account for:
- The person: including cognitively, emotionally, biologically
- The context: including historical information, family, community, culture
- The event: including severity, duration, intensity, number of events, type of event

NIMH Research Funding per Disease Area

Disease Area	Funding, FY97
"Severe Mental Illness"	204,297
Schizophrenia	108,659
Depression	142,974
Bipolar Disorder	32,445
Genetic Research	112,545
Anorexia and Bulimia	7,936
Attention Deficit	19,326
Autism	9,417
Obsessive-Compulsive Disorder	10,838
PTSD	15,126
Dissociative Disorders	00,000

Source: Budget Office, NIMH

Some questions waiting to be spelled out:

- **Secure attachment as mediator of adjustment to trauma a different developmental levels.**
- **Disorganized attachment as predictor of PTSD *or other psychopathologies* at various stages of development**
- **Impact of trauma exposure on developmental pathways:**
  - **Self**
  - **Cognition, etc.**
  - **Various psychopathologies, e.g. ADHD, Bipolar illness, psychoses**
  - **Peers**
  - **Attachment patterns to parents**

Some questions waiting to be spelled out:

- **Parenting style and outcome.**
  - **Parental arousal modulation**
  - **Parental capacity to attach words and meaning to experience**
  - **Parental empathy**
  - **Other parental psychopathology**

Some questions waiting to be spelled out:

- **What does all this mean for the nature and timing of interventions ?**
  - **How help with affect regulation**
  - **Do kids need to learn affect regulation prior to trauma processing ?**
  - **Techniques for changing impairment in executi8ve functioning**
  - **How do we intervene to “read social cues’**
  - **When focus on parents, when on kids**
  - **When and how to “process” trauma.**

Activities to date

- Dissemination of white paper draft (van der Kolk, Hopper & Crozier, 2001
- Survey to assess range of exposure and severity to interpersonal trauma
- Survey to be disseminated by NCCTS Jan 2003
- DCRI to collect data and maintain survey data base
- Survey results to be available for review Spring in-person Complex Trauma Taskforce

Foci of today's meeting

- Elaboration of shared goals re: clinical research and intervention strategies
- Development of a Complex Trauma White paper.
- Acceptance by insurance companies and scientific review committees
- Set time line and assign authors

Short term goals

- Task force roster
- Netserve
- Draft short interval plan 90 day
- Divvy up tasks re: white paper
- Set up agenda for in-person Taskforce meeting June 1, 2003
- Begin delineation of a multi-site project stemming from survey and white paper results

Long term goals

- Presentation of survey results at 2003 ISTSS meeting
- Submission of multi-site project
  - DESIGN
  - FUNDING