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**POST-TRAUMATIC STRESS,
DEPRESSION, AND HIV IN WOMEN:
CONNECTING THE DOTS**

CASE: CC

Complaint:

19 year old Go presents after five months lost to follow up; she c/o "wicked headaches" and "feeling tired all the time", "ever since I got out of the hospital." She was hospitalized for a gunshot wound.

PMH:

Physically abused by mother age 3-12; ACS involved, case closed

Treated for ADHD from age 8-13

Suicidal ideation following the violent death of her brother (pt was 13 yo); CC placed in juvenile residence

Diagnosed with depression age 14; 2 more psych hospitalizations

Placed in residential center following knife assault on SO, age 15 - 16

Gyn Hx:

Sexually abused by mother's ex-SO, age 5

Sexually abused by best friend's uncle, age 11

Hospitalized for Pelvic Inflammatory Disease, age 14

+ history of Chlamydia, gonorrhea, and condyloma

> 100 partners in life; 4 female partners; 1 partner in last 6 months

(male); patient denies history of sex work; + h/o "initiation sex"

CC'S CASE, CONTINUED

Social History:

Lives with 34 yo SO

SO takes methadone daily, is an ex-IVDU

1 PPD cigarette smoker but quit three months ago (on admission to ICU)

Used to smoke marijuana daily, but hasn't at all for three months

History of non-habitual ecstasy, PCP, cocaine use

Drinks alcohol on weekend evenings, typically "splitting a bottle of Hennessy"

Completed GED program and plumber's training during last juvenile detention

Currently enrolled at BMCC; wants to be a social worker

Review of Systems:

Pelvic pain

Headaches

Bloating and digestive problems

Difficulty sleeping; awakens easily and is easily startled
since her discharge from the hospital

Reports difficulty concentrating on her studies

CC DROPS A BOMB

- CC tells you of the incident, a drive-by in her Bronx neighborhood. She was shot in the left chest twice, narrowly missing her heart and major arteries , and had a chest tube for weeks during her hospitalization.
- You're very dismayed to hear about CC's brush with death, but glad she's alive. When she sees that you are almost in tears, CC drops her head, then looks at you.
- "OK," she says, "but you can't tell this to anyone, don't even write it down. He shot me. My man. It was my fault, really. We were arguing over something stupid, like always, he wanted to watch a DVD and I wanted to take a shower first. I'm the one who picked up the gun --- his cousin left it over at our apartment --- and I waved it at him, like, come on, mutha, and he took the gun away from me and shot me."
- CC tells you how she went outside to the corner and called the police on her cell from there so her SO would not be arrested.
- You fear for CC's safety, and tell her so. "You don't understand, Rollins," she says. "He stood by me. He was there for me while I was in the hospital, and things have been good since I got out."

POST-TRAUMATIC STRESS DISORDER

Characterized by:

- Having experienced an event in which body integrity and life are threatened
- Reactions of extreme fear, helplessness, and horror
- Symptoms related to re-experiencing the event, avoidance of reminders of the event, and hyperarousal
- Symptoms must be present one month after event, and *must cause functional impairment*

DEPRESSION

DSM-IV Definition:

- Depressed mood
- Anhedonia
- Appetite disturbance
- Sleep disturbance
- Physical agitation or psychomotor retardation
- Fatigue, decreased energy
- Feelings of worthlessness or inappropriate guilt
- Decreased concentration or inability to make decisions
- Recurrent thoughts of death or suicidal ideation

PREVALENCE OF DEPRESSION IN HIV+ WOMEN

- Depression rates higher in women than in men
- Similar rates of depression have been documented in pregnant and non-pregnant women
- HIV diagnosis is often associated with increased depressive symptoms
- Individuals with HIV have higher depression rates than HIV negative counterparts

Psaros C, Geller P, Aaron E. Importance of identifying and treating depression in HIV-infected pregnant women. *Jnl Psychosom Obstet Gynecol* 2009; 30(4): 275-281

RISK FACTORS FOR DEPRESSION IN HIV+ WOMEN

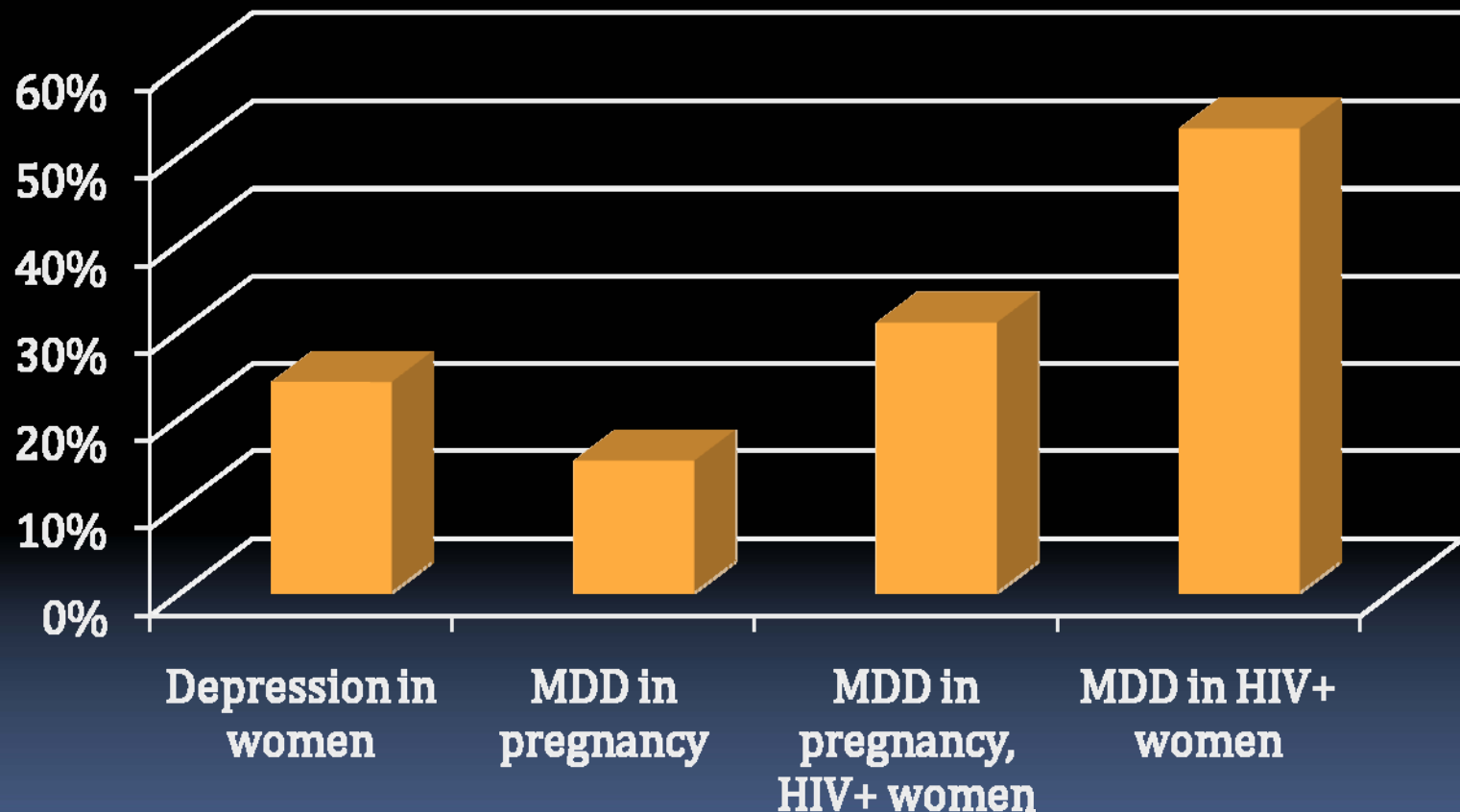
- **Demographic**
 - Female
 - Low-income
 - HIV positive
- **Psychosocial**
 - Personal or family history of psychiatric illness
 - Social stress
- **Medical**
 - HIV-related: Low T-cell counts, high viral load, high symptom level
 - Thyroid abnormalities
 - Nutritional deficiencies
- **Substance use in pregnancy**

Kapetanovic S et al. Correlates of perinatal depression in HIV-infected women. *AIDS Pat Care STDs* 2009; 23: 101-108

WHAT DO WE MEAN BY “SOCIAL STRESS”?

- Domestic violence and intimate partner violence
- Marital problems
- Financial problems
- Inadequate housing or threat of losing housing
- Lack of transportation
- Lost or threatened custody of children
- Recent death of loved one
- Incarceration of spouse or other family member
- Sick family member, especially if caretaker

DEPRESSION: WOMEN'S BURDEN OF DISEASE



Kapetanovic S et al. Correlates of perinatal depression in HIV-infected women. *AIDS Pat Care STDs* 2009; 23: 101-108

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WHAT CONSTITUTES RISK FOR AT-RISK WOMEN?

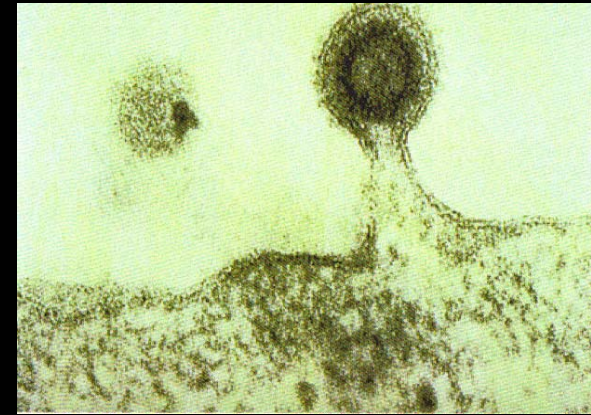
- HIV
- STIs
- Risky sex
- Substance Use
- Mental Illness
- Violence
- Incarceration
- Environment/ Macrosystem

RISK ISSUES FOR HIV+ WOMEN

Risk Domain	Ever/Remote Experience	During Pregnancy	Following Pregnancy
Lack of Social Support	<ol style="list-style-type: none"> 1. Increased risk of comorbidities 2. No framework for positive interactions with medical, mental health, and social service organizations 	<ol style="list-style-type: none"> 1. Associated with lack of resources 2. Nutritional risk 3. Less access to care, especially if pt has other children 4. Increased incidence of depression 	<ol style="list-style-type: none"> 1. Poor parenting 2. Decreased ability to get to medical visits 3. Increased incidence of PP depression 4. Stress-related effects on immunity
Trauma	<ol style="list-style-type: none"> 1. Risk of poor parenting 2. Brain damage 3. PTSD, anxiety disorder 4. Self-tx with SA, EtOH, cigs 	<ol style="list-style-type: none"> 1. Substance use 2. Direct harm to mother and fetus 3. Unprotected sex with non-monogamous partner; subsequent increased risk of other STIs 	<ol style="list-style-type: none"> 1. Unprotected sex, increasing risk of acquiring resistant strains and rapid repeat pregnancy 2. Morbidity and mortality to mother and baby 3. Increased isolation 4. Decreased academic pursuit/ occupational fulfillment
Substance Use	<ol style="list-style-type: none"> 1. Low educational attainment/occupational readiness 2. Poor financial resources 3. Liver damage and/or overly-induced cytochrome systems (may affect pain control) 	<ol style="list-style-type: none"> 1. LGA, SGA, prematurity 2. Poor adherence to medication 3. Placental abruption 4. Neonatal addiction and withdrawal syndromes 	<ol style="list-style-type: none"> 1. Poor parenting 2. Poverty 3. Medical sequelae of each substance 4. Decreased academic/occupational pursuit 5. Poor adherence to medication
Depression	<ol style="list-style-type: none"> 1. Increased risk of later depression 2. Uncompleted developmental tasks 3. Delays in starting ART upon dx 	<ol style="list-style-type: none"> 1. Self-tx with substance use 2. LGA, SGA, prematurity 3. Increased incidence of hypertensive disorders 4. Poor adherence to medication 	<ol style="list-style-type: none"> 1. Poor adherence to meds, visits 2. Poor parenting 3. Developmental delay in offspring 4. Nutrition/cognitive effects of MDD, HIV, ART

HIV: RISK MODIFIER, RISK CONSEQUENCE, AND TRAUMATIC EVENT

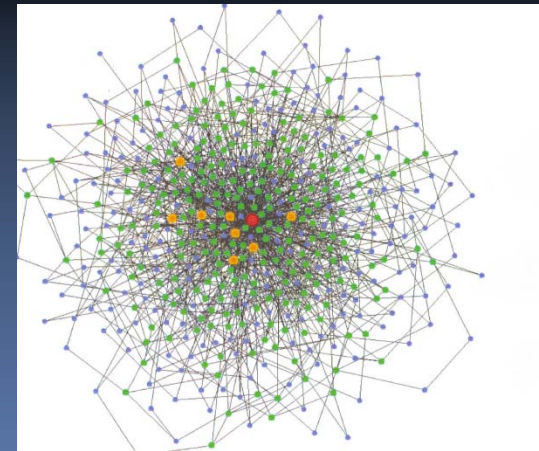
- **Avoidance symptoms of PTSD or PTSS**
 - Failure to return to health care setting
 - Unwillingness to adhere to medical regimen
 - Refusal to disclose status to others
- **Hyperarousal**
 - Sleep interference
 - Relationship interference
- **PTSD likely significantly interferes with adjustment to HIV diagnosis**
- **PTSD affects resulting lifestyle changes necessary for health maintenance and reduction of secondary infection to others**



SEXUALLY TRANSMITTED INFECTIONS

- Highest rates of STIs found in AA population
- Presence of inflammatory or ulcerative STIs increases HIV risk 3-5 fold
- Individuals infected with both HIV and some STIs have a greater chance of spreading HIV to partners
- Recently recognized that AAs report less risky sexual activity and drug use than white counterparts

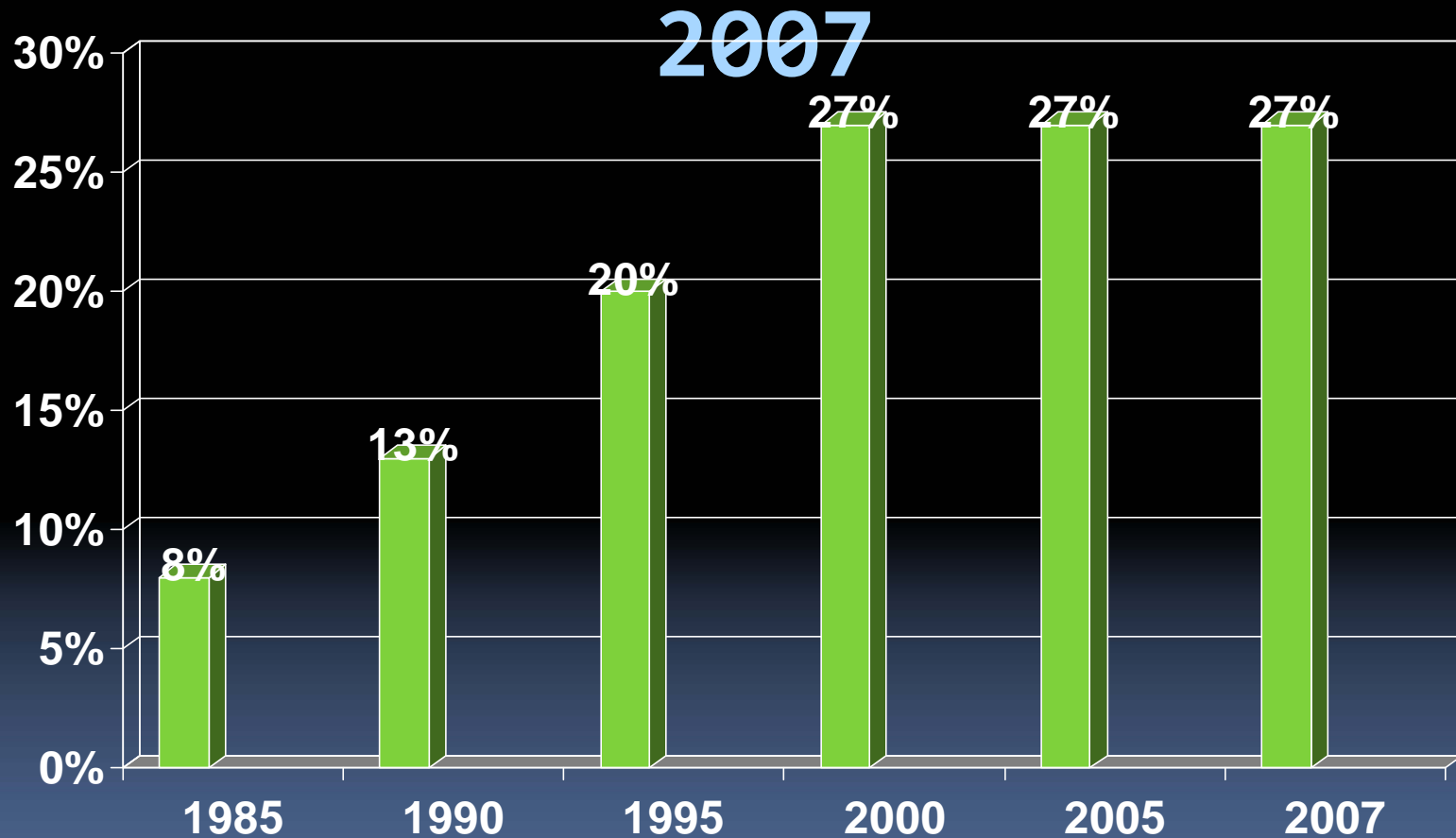
- **SEXUAL NETWORK PATTERNS**



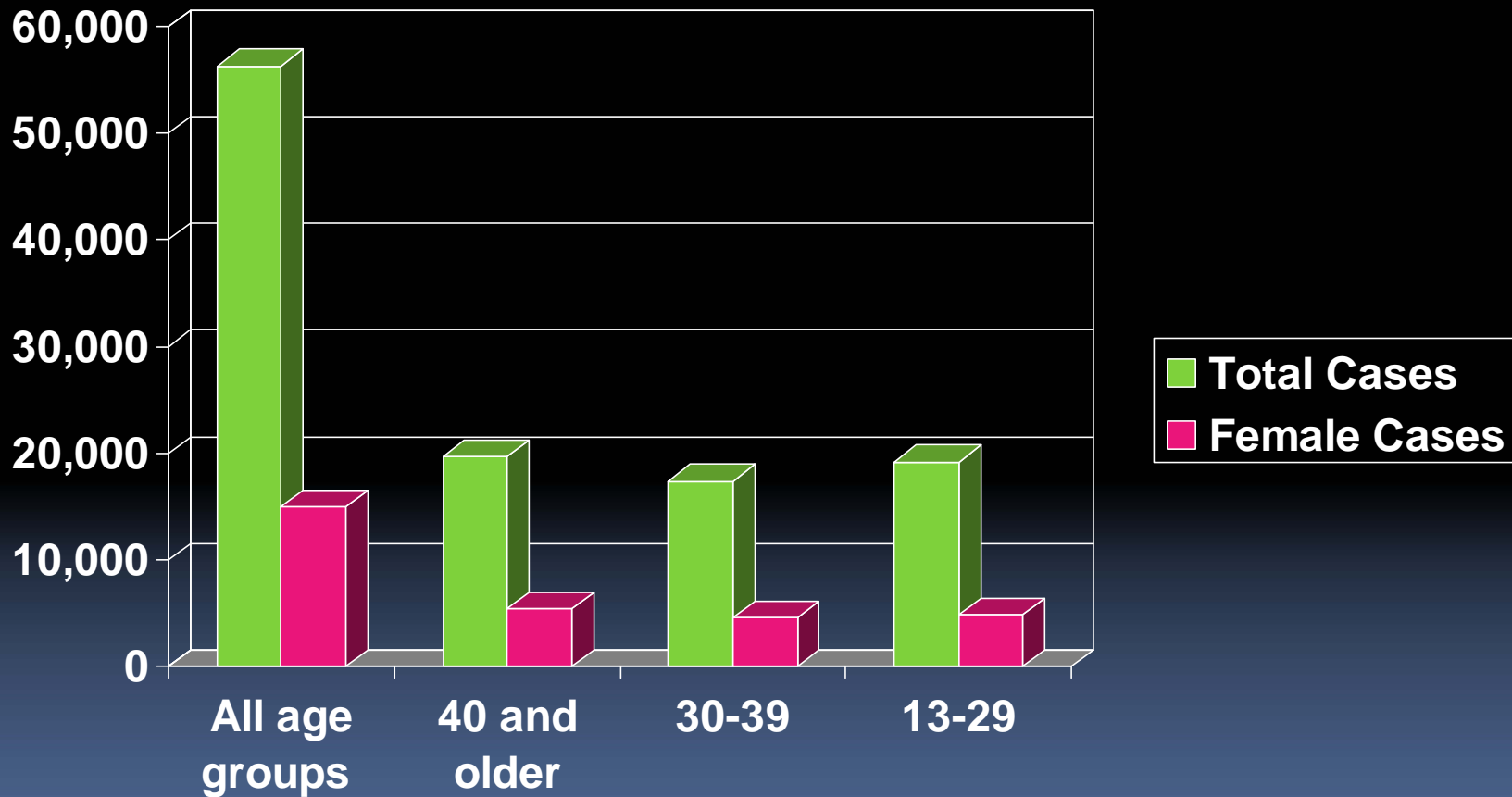
RISKY SEX

- **Sex work**
 - Typically begins at age 13 or 14
 - 81% of prostitutes wish to leave “the life”
 - 66% have PTSD
 - Almost half have attempted suicide
 - Workplace homicide rate is 51X the next most dangerous occupation
- **Substance use prior to sexual activity**
- **Sexual exploitation and victimization**

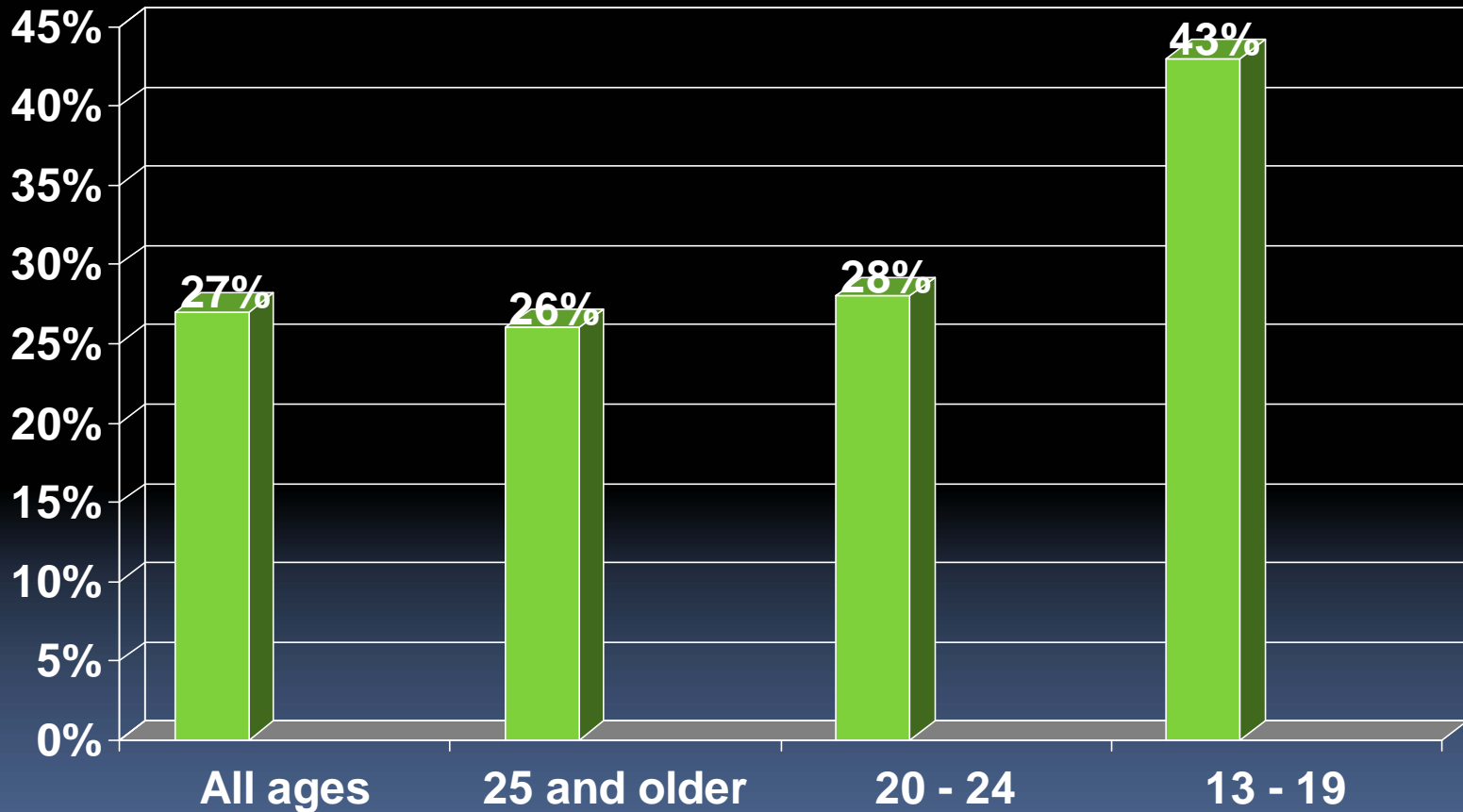
WOMEN AS A PROPORTION OF NEW AIDS DIAGNOSES, 1985-



NEWLY DIAGNOSED HIV IN THE U.S., 2006



FEMALES AS A PROPORTION OF NEW AIDS DIAGNOSES, 2005





SUBSTANCE USE

- Substance abuse is most prevalent psychiatric disorder among female prisoners
- Both male and female adolescents with histories of childhood sexual abuse (CSA) were more than 4 times as likely to have sexual activity after drug use than those without CSA

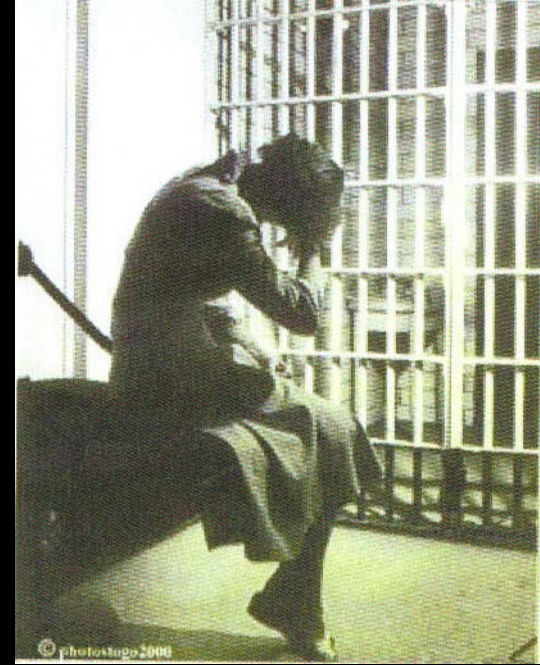
MENTAL HEALTH RISKS OF CHILDHOOD SEXUAL ABUSE

- Depression **SURVIVORS**
- Dissociative Disorders
- PTSD and other anxiety disorders
- Suicidal ideation and attempts
- Poor self-esteem
- Self-inflicted injury
- Substance abuse
- Eating Disorders

VIOLENCE

- **Destroys assumption of safe space**
 - Intimate partner violence
 - Family violence
 - Community violence exposure
- **Commission of violent crimes by victims of PTSD**
- **Negatively affects health**
 - Associated with post traumatic stress, even if individual was not victimized him/herself
 - Doesn't have to be current to affect health outcomes
 - Damage may be emotional, cognitive, or physical
- **Gender differences in response to violence**
 - Girls have less denial around community violence
 - More likely to report trouble in school; less likely to report carrying weapon in self-defense

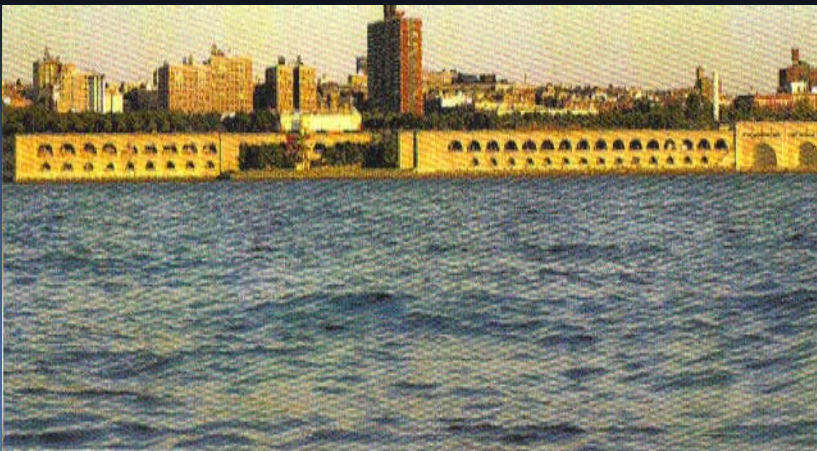
INCARCERATION



- Incarcerated women in the United States
 - 60% not employed full time
 - 37% have incomes <600\$/month
 - 66% are parents of a minor child
- Mental health rates of incarcerated women
- HIV in incarcerated women
- Transition advocacy for the incarcerated woman

ENVIRONMENT/MACROSYSTEM

- Growing poverty
- Under-education
- Unemployment and underemployment
- Housing
- Food availability and quality
- Environmental racism/classism



	Population	White	Black	Asian & Pacific Islander	Average Household Income	Persons Below Poverty Line	Associate/Bachelor's Degree	Graduate or Professional Degree
Proposed Site (72nd ST.)	65,042	84.4%	8.0%	2.8%	\$123,172	8.5%	34.4%	33.7%
Actual Site (145th ST.)	56,173	15.5%	60.6%	1.3%	\$26,123	33.7%	10.4%	4.7%

There is a growing body of knowledge that links various types of violence exposure to increased HIV sexual risk factors among adolescents. Such findings call for research that empirically investigates the pathways linking these two interrelated phenomena.

Dr. Dexter Voisin, 2005

CONSEQUENCES OF CHILDHOOD SEXUAL ABUSE

- **Somatization**
- **Mental illness**
- **Survivor violence and aggression**
- **Adult sexual revictimization**
- **Disrupted educational and vocational pursuit**
- **Unemployment and underemployment**

UNDERSTANDING ADULT SEXUAL REVICTIMIZATION

- **Predictors**
 - ASR more highly associated with contact sexual abuse than non-contact
 - Force and violence; also correlates with age of CSA
- **Theories**
 - 1960s-1980s: Social development theory
 - Finkelhor and Browne: Traumagenic Dynamics
 - Koss and Dinero: Vulnerability hypothesis
 - Grauerholtz: Ecological Approach
 - Chu: PTSD-like symptoms

HOW UNDERSTANDING PTSD MAY GUIDE INTERVENTIONS

- **Clinician behavior**
 - Explain all therapeutic and medical procedures
 - Ask permission before touching patient
 - Beware lithotomy position
- **Therapy**
- **Group therapy and peer support**
- **Pharmacotherapy**
- **Serious support for serious needs**
 - In-facility individual needs assessment
 - Intensive programming; duration of support to depend on patient/client requirements
 - Housing, employment, and education

BENEFITS TO TREATING PTSD AND DEPRESSION HEAD-ON

- **Compliance**
- **Adherence**
- **Patient acting out / transference issues**
- **Clinician acting out / countertransference issues**
- **Awareness of our own traumatic experiences allows greater empathy but also informs a non-judgmental approach**

RECOMMENDATIONS FOR BEST PRACTICE

- **Remove barriers to access**
- **Emphasize personal empowerment**
 - Provide assistance in coping with life stressors and improving self esteem
 - Create alternative treatment modalities consistent with the cultural backgrounds of the target population
 - Emphasize family preservation, promoting (re)unification and parent effectiveness training
- **Provide services that have a positive lifestyle impact**
- **Services address multiple issues where encountered**

TAKING CARE OF OURSELVES AS HEALTH PROFESSIONALS

- Beware vicarious traumatization
- Beware unresolved abuse in our own histories
- Are we doing our own work?
 - Class/race issues and judgments can affect screening and treatment decisions
 - Have we internalized societal myths about CSA survivors?
 - Supervision for our reactions to patient boundary testing and trespass

POST TRAUMATIC STRESS IN CC


- **The Set-Up**
 - Physical abuse
 - Sexual abuse prior to or during adolescence
 - History of mother's incarceration
 - Two brothers killed with gunfire; one witnessed by CC
- **The Fallout**
 - Depression
 - Educational underachievement
 - Substance use
 - Violent aggression leading to incarceration
 - Somatic symptoms
- **Risks to her future**
 - Continued morbidity from unaddressed depression and PTSD
 - Death from violent intimate relationship
 - Nutrition and overweight
 - Possible tubal factor infertility

CC IS DIAGNOSED HIV POSITIVE

- Just after final exams in her second year at BMCC, CC comes to clinic complaining of a sore throat and swollen glands.
- After the exam, which is unremarkable except for some cervical and inguinal lymphadenopathy, she has HIV testing as a routine because she hasn't tested in over a year. The results are positive.
- CC is tearful, but says she's not surprised because she and her SO have been not using condoms in an effort to get pregnant.
- "This is not going to stop me," she tells you. "I'm starting my four year degree at Hunter in September." You encourage her and refer to the HIV specialist at the clinic. CC's T-cells are high, but so is her viral load, and a course of meds are started.

CC'S ACCOMPLISHMENTS... SO FAR

- Has dreams and aspirations
- Graduated GED program while incarcerated
- Graduated BMCC; currently in her first semester at Hunter for social work
- Currently off most illicit drugs (occasional MJ)
- Is still abstinent from cigarettes
- Considering anger management group
- **IS ALIVE**



**Although the world is full of
suffering, it is also full of the
overcoming of it.**

Helen Keller



THANK YOU!

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