

The Nursing Lens on the Intersections of Violence Victimization & HIV/AIDS: Beyond Behavior to a Holistic Model of Prevention and Response

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The global HIV epidemic among women

- ❖ There are approximately 36.9 million people currently living with HIV
 - ❖ 70% of these individuals are in sub-Saharan Africa
- ❖ Women represent about half (51%) of all adults living with HIV
- ❖ Women around the world far more likely to contract HIV in heterosexual contact than are men

- ❖ In 2010, young people (15-24 years) accounted for about 42% of new infections in people 15 and older
 - ❖ Young women (15-24) have HIV infection rates twice as high as young men

From Centers for Disease Control and Prevention 2015

- 233,100 new HIV infections '09 – 2013 – African Americans 46% of total
- '09 -'13 African American women - 63% new dx among women (CDC, '15)
- In 2013 9,278 women diagnosed with HIV (rate 6.9/100,00)
 - 5,867 African American women 34.8/100,000 (next highest rate multiracial 9.3)
- AIDS a leading cause of death for African American women (CDC 2010)
 - #7 age 15-24
 - #5 age 25-34
 - #4 age 35-44
 - #6 age 45-54
- African American and multiracial women disproportionately affected by IPV (CDC 2011)
- 87% of new dx among women -heterosexual contact (CDC, 2011); 93% of new dx from HIV for men – male sexual contact.
- Homicide & suicide among top 6 causes of death for Black women 15-44

The global violence epidemic

Global lifetime prevalence of intimate partner violence among ever-partnered women is 30.0% (95% CI: 27.8%-32.2%).

Table 1: Lifetime prevalence of physical and/or sexual IPV among ever-partnered women by WHO region

WHO Region	Prevalence (%)	95% CI
→ Africa	36.6	32.7-40.5
Americas	29.8	25.8-33.9
→ Eastern Mediterranean	37.0	30.9-43.1
Europe	25.4	20.9-30.0
→ SE Asia	37.7	32.8-42.6
Western Pacific	24.6	20.1-29.0

Table 2: Lifetime prevalence of physical and/or sexual IPV by age group among ever-partnered women

Age group	Prevalence (%)	95% CI
15-19	29.4	26.8-32.1
20-24	31.6	29.2-33.9
25-29	32.3	30.0-34.6
30-34	31.1	28.9-33.4
→ 35-39	36.6	30.0-43.2
→ 40-44	37.8	30.7-44.9
45-49	29.2	26.9-31.5
50-54	25.5	18.6-32.4
55-59	15.1	6.1-24.1
60-64	19.6	9.6-29.5
65-69	22.2	12.8-31.6

CDC NISVS SURVEY RESULTS ON IPV VICTIMIZATION (WEIGHTED PREVALENCE) HEALTH OUTCOMES -2011

Disproportionately higher among AI/AN, African American & Multiracial Women www.cdc.gov/ViolencePrevention/NISVS	Females lifetime	Females Past Year	Males Lifetime	Males Past Year
Physical violence	32.9	4	28.2	4.7
Rape	9.4	.6	*	*
Stalking	10.7	2.8	2.1	.5
Rape, physical violence, &/or stalking	35.6	5.9	28.5	5
With IPV-related impact (fear, PTSD Sx, Injury, pregnancy, STI, missed work, need for services)	28.8	-	9.9	-
Severe physical violence (vs. push/shove/slap)	24.3	2.7	13.8	2
Any psychological aggression (expressive or coercive control)	48.8	13.9	48.4	18.1
Injury/needed medical care from IPV	14.8/7.9		4/1.6	

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For a personal story Destiny Mabry NPR NYC DV story 9/21/2015

NISVS RESULTS OF SEXUAL ASSAULT LIFETIME VICTIMIZATION BY SEXUAL ORIENTATION**

Not analyzed by race/ethnicity www.cdc.gov/12362//ViolencePrevention/NISVS weighted prevalence	F Hetero	F/Bi-sexual	F/Les-bian	M/Hetero	M/Gay	M/Bi
Rape (actual/attempted forced penetration/alcohol/drug facilitated)	17.4	46.1	13.1	.7	*	*
Other sexual violence	43.3	74.9	46.4	20.8	40.2	47.4
Made to penetrate				4.3	*	*
Sexual coercion- e.g. threatened with end of relationship	12.4	29.6	*	5.5	*	*
Unwanted sexual contact	25.9	58.0	32.3	10.8	32.3	21.1
Other sexual acts unwanted - non contact	32.4	37.8	12.9	11.7	37.8	28.9
**Sexual orientation of victim not perpetrator						
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NISVS RESULTS ON IPV (INTIMATE OR SEXUAL PARTNER) LIFETIME VICTIMIZATION BY SEXUAL ORIENTATION**

Not analyzed by race/ethnicity www.cdc.gov/12362//ViolencePrevention/NISVS weighted prevalence	F Hetero	F/Bi- sexual	F/Les- bian	M/ Hetero	M/ Gay	M/Bi
Physical violence	32.9	56.9	40.4	28.7	25.0	37.3
Rape	9.4	.6	*	*	*	*
Stalking	10.7	2.8	2.1	*	*	*
Rape, physical violence, &/or stalking	35.6	61.1	43.8	29	26	37.3
With IPV-related impact (fear, PTSD Sx, Injury, pregnancy, STI, missed work, need for services)	28.8	61.1	33.5	*	10.9	*
Severe physical violence (vs. push/shove/slap)	24.3	40.3	29.4	13.9	16.4	*
Any psychological aggression (expressive or coercive control)	48.8	76.2	63	48.3	45	48
Injury/needed medical care from IPV	14.8/7.9	27.5/ 15.7	*	4/1.6	*	*

*Cell size too small or standard error too large

**Sexual orientation of victim vs. perpetrator

Extent of the Global Evidence on the Associations between HIV and IPV

- ❖ Numerous published reviews of HIV and IPV have been conducted over the past 15 years
 1. Maman (2000) The intersections of HIV and violence: directions for future research and interventions. *Social Science & Medicine*, 50(4):459-478.
 2. Campbell (2002). Health consequences of intimate partner violence. *The Lancet*, 359 (9314): 1331-1336.
 3. Campbell (2008) The intersection of Intimate partner violence against women and HIV/AIDS: a review. *International Journal of Injury Control and Safety Promotion*. 15(4): 221-231
 4. Meyer (2011) Substance use, violence and HIV in women: A Literature review of the Syndemic. *Journal of Women's Health*, 20(7): 991-1006.
 5. Stockman (2012) Forced sexual initiation, sexual intimate partner violence and HIV risk in women: a global review of the literature. *AIDS Behav*,; 3; 832-47.
 6. Dunkle (2013) Gender-based violence and HIV: Reviewing the evidence for links and causal pathways in the General Population and HIV-risk groups. *American Journal of Reproductive Immunology*. 69(Suppl 1): 20-26.
 7. Kouyoumdjian (2013) A systematic review of the Relationship between Intimate partner violence and HIV AIDS. *PLOS One*, 8(11): e81044
 8. Li (2014) Intimate partner violence and HIV infection among women: a systematic review and meta analysis. *Journal of International AIDS Society*, 18845.
- ❖ Much of the evidence has been generated from research in sub-Saharan Africa and Asia.

Evidence of the association between HIV and violence: Cross sectional evidence

- **Many cross-sectional studies on the association of HIV and IPV. Results have been mixed.**

Country	Population	Results
Rwanda (Dude, 2011)	1,582 women, 15-49 years (DHS survey)	Women who experienced sexual, physical or emotional abuse within their marriage were 1.61-3.46 times more likely to be HIV+.
Tanzania (Maman, 2000)	245 women attending VCT clinic	The odds of reporting at least 1 violent event was significantly higher among HIV+ women than HIV- women (physical violence OR 2.63 (1.23-5.63), sexual violence OR 2.39 (1.21-4.73))
Rwanda (van der Straten, 1998)	921 postpartum women with steady partners	HIV+ status was associated with a 1.89 greater odds of reporting sexual coercion (1.2-2.96)
7 countries in E. & S. Africa (Were, 2011)	3408 HIV sero-discordant couples	HIV+ status was associated with 1.33 greater odds of reporting verbal or physical violence (1.01-1.76)
South Africa (Dunkle, 2004)	1366 pregnant women	IPV (odds ratio 1.48, 95% CI 1.15–1.89) was associated with HIV seropositivity

Evidence of the association: Longitudinal evidence

❖ 4 studies assessed association between IPV and incident HIV in Africa. Results were mixed.

❖ Significant findings

Setting	Population	Results
Eastern Cape, SA (Jewkes, 2010)	1,099 women from 2002-2006	Women with 1+ episode of IPV were 1.80 times as likely to be infected with HIV compared to women with one or no episodes. Adjusted fraction of HIV attributable to more than one episode of physical or sexual IPV was 11.9%.
Rakai, Uganda (Kouyoumdjian, 2013)	10,198 women, 15-49 years (2000-2009)	Incident HIV was associated with sexual, physical or verbal IPV ever sexual IPV ever, physical IPV ever and verbal IPV ever each compared with no IPV ever. The adjusted attributable fraction for IPV ever on HIV was 22.2%.

❖ Non-significant findings

Setting	Population	Results
Rakai, Uganda (Zablotska, 2009)	3422 women, 15-24 years (2001-2003)	HIV incidence was 1.6 per 100 person years in women with no sexual coercion and 2.3 per 100 person years in women with sexual coercion. This was NS in multivariable analysis, but #s of incident infections (40) were small.
7 countries in E.& S. Africa (Were, 2011)	3408 sero-discordant couples (2004-2007)	Physical, verbal or sexual IPV was not significantly correlated with HIV seroconversion

Results of Meta-Analysis to assess evidence of association between IPV & HIV

studies involving 308,410 individuals included in the meta-analysis.

- ❖ 16 countries including US (8), South Africa (4), East Africa (10), India (3), Brazil (1) and multiple low resource countries (2)
- ❖ Meta analyses were conducted by type of IPV and by study design.
- ❖ Pooled results of cohort studies: Physical IPV (pooled RR 1.22(1.01-1.46) and any type of IPV (pooled RR 1.20 (1.00-1.64) significantly associated with HIV infection among women.
- ❖ Pooled results of cross-sectional studies: Physical IPV (pooled OR 2.00 (1.24-3.22) and any type of IPV (pooled OR 1.41 (1.16-1.73) were significantly associated with HIV infection among women.
- ❖ Pooled results of case control studies: No significant associations.
- ❖ When studies from the US were excluded, pooled results demonstrated stronger associations between IPV and HIV.

HIV/IPV Connections – Etiology for Women

(Maman et. al. '99 & since) >0-3.7%

- Impossible to negotiate safe sex if IPV – well substantiated – multiple studies
- Women accused of infidelity if ask for safe sex
- Males with other partners unknown to women (WHO'04)
 - May be male partners
- Fear of being beaten for being tested; notifying partner of positive status; delay in treatment
- Substance abuse (increased substance abuse w/IPV)
- Immune system depression with stress
 - 2010 - immune system alteration with stress of IPV, PTSD
- Genital trauma-increased transmission; anal sex
 - More severe forced sex, multiple forced sex
- Increased STD's & untreated STD's – increased transmission through vaginal wall – activated immune system

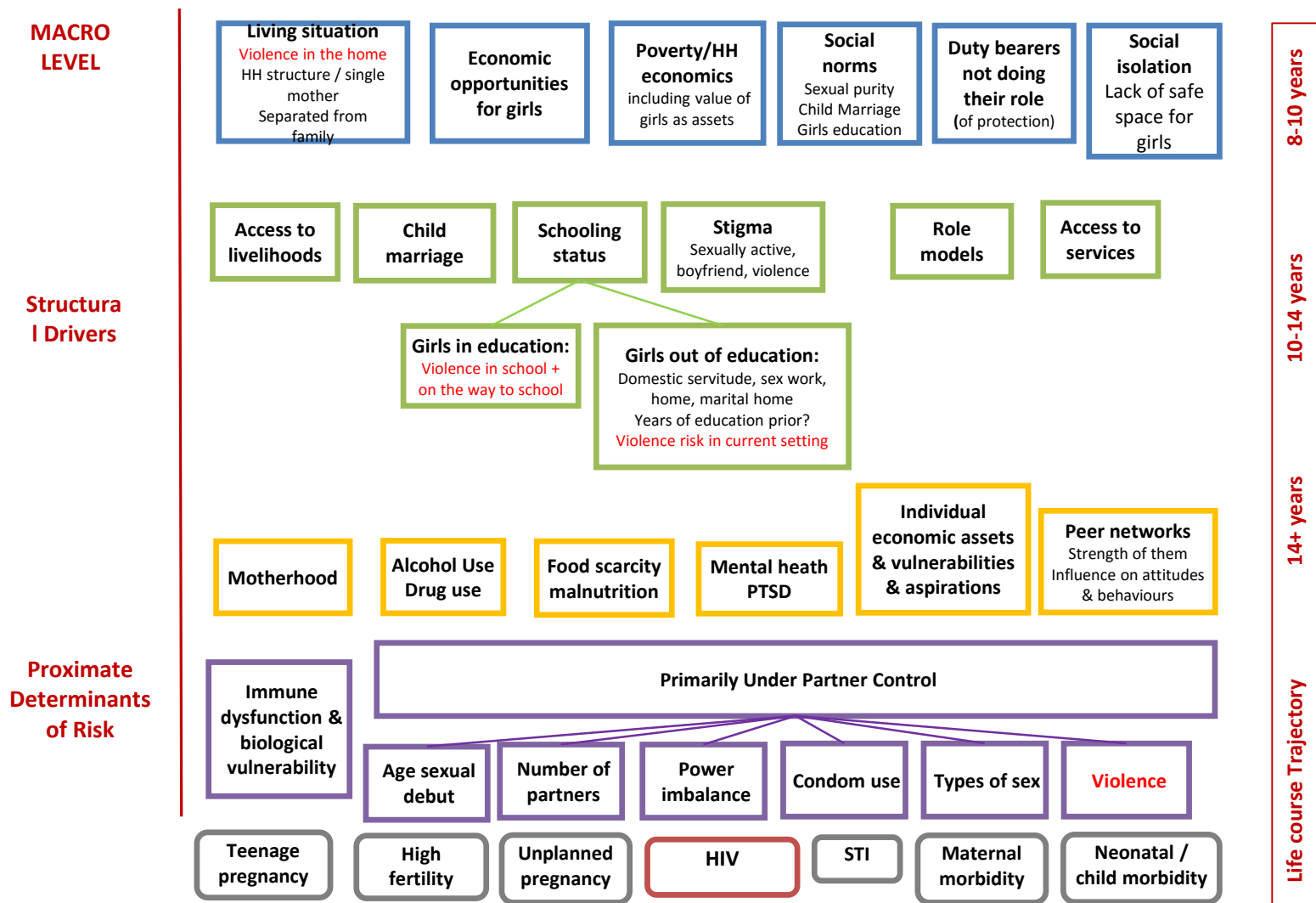
Kouyoumdjian, Findlay, Schwand, Liviana & Calzavara – meta analysis (PLOS 1, 2013) – cross sectional/not causal

http://www.cdc.gov/violenceprevention/pdf/ipv/13_243567_green_aag-a.pdf

Pathways: Influence of IPV on HIV risk

- ❖ Biological mechanisms
 - ❖ Trauma may increase transmission
 - ❖ IPV weakens immunity facilitating transmission
- ❖ Social/behavioral mechanisms
 - ❖ Violence changes sexual negotiation
 - ❖ Early exposure to violence influences risk behavior
 - ❖ Male partners behaviors

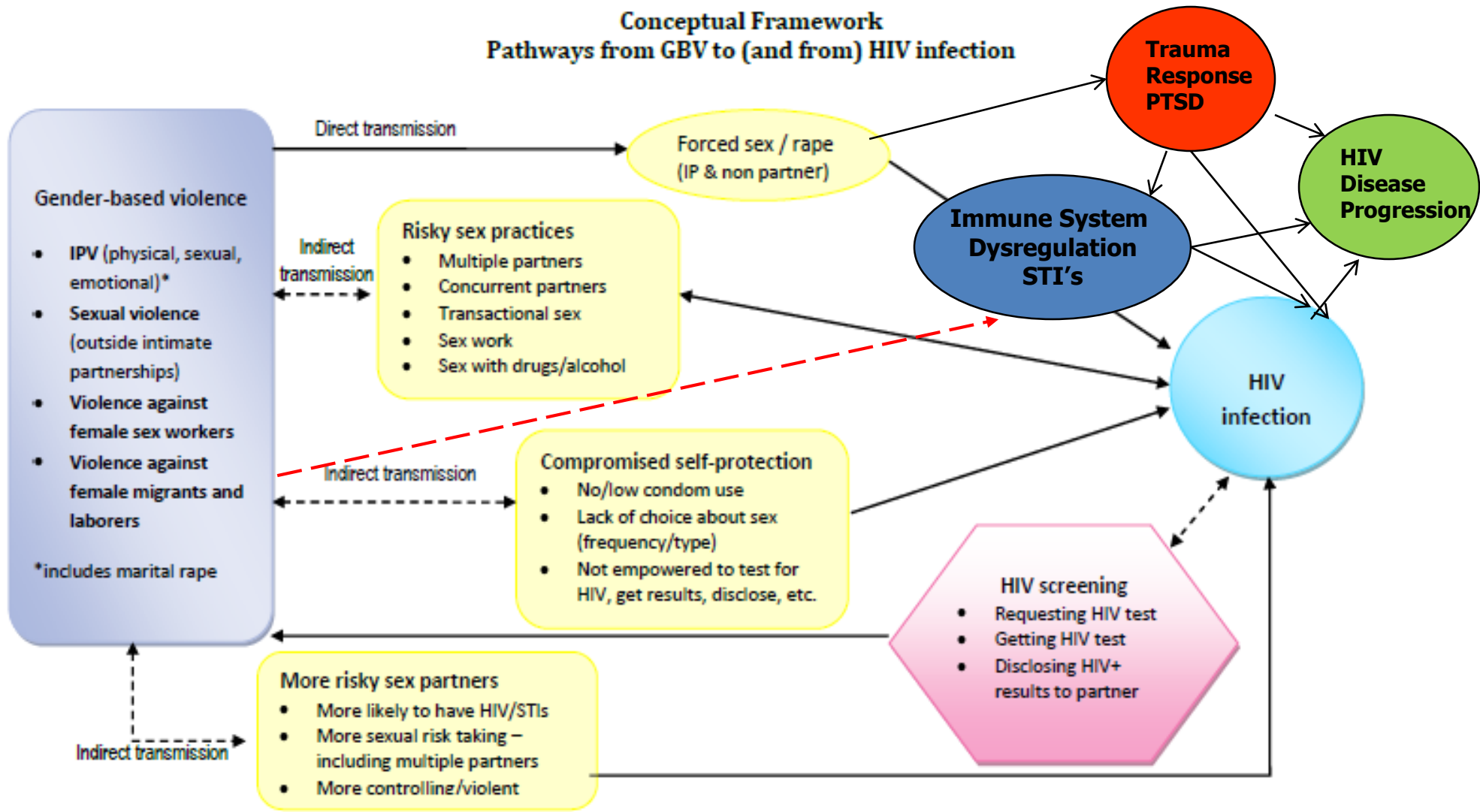
Pathways of vulnerability to violence exposure & HIV for pre-pubescent & adolescent girls in low and middle income countries (*Greentree II - LSTM*)



HIV/Violence Intersections for Men

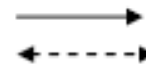
- Relf '01, '02 (Greenwood, Relf et al AJPB), '04 (JANAC)
- Finneran & Stephenson, Systematic Review of violence among MSM – VT & A – 2013 – 28 studies – only 8 tested association with risk of HIV
- Feldman et al Journal of LGBT health, 2008 - CSA
- Bogart et al. Partner abuse and HIV risk behaviors – women & men - *AIDS and Behavior*. 2005; 9(3):325–333.
- Li et al 2013 *AIDS & Behavior* – drugs, IPV & sexual risk behaviors
- Koblin et al *AIDS CARE* 2007 –
 - 68% of MSM some violence from family member or partner - CAN & IPV
 - partner violence associated with unprotected anal sex

Conceptual Framework Pathways from GBV to (and from) HIV infection



**Campbell, Stockman, Lucea, Wagman -
Adapted from Jewkes '05**

1-way solid arrow denotes direct link between IPV and HIV
2-way dotted arrow denotes indirect link between IPV and HIV



Multiple US Samples

- 35-45% of physically abused women also physically forced into sex
- If asked, majority say multiple – many times
- If asked, a substantial proportion (up to ½) of forced sex was anal sex

ACAAWS Study – Case/Control – Women Experiencing Partner Abuse Compared to Those Never Abused in Baltimore & USVI (Funding by CERC -Caribbean Exploratory Research Center #P20MD002286 NIH/NIMHD G. Callwood, PI.)

- Of 422 African American and African Caribbean women who experienced physical abuse:
 - **157 (37%) reported an experience of forced sex –by partner - majority said forced sex repeated (many times)**
 - **31 of 123 (23%) of those experiencing forced sex (who responded to question) reported forced anal sex -**



**CARIBBEAN EXPLORATORY
NIMHD RESEARCH CENTER**
University of the Virgin Islands, School of Nursing



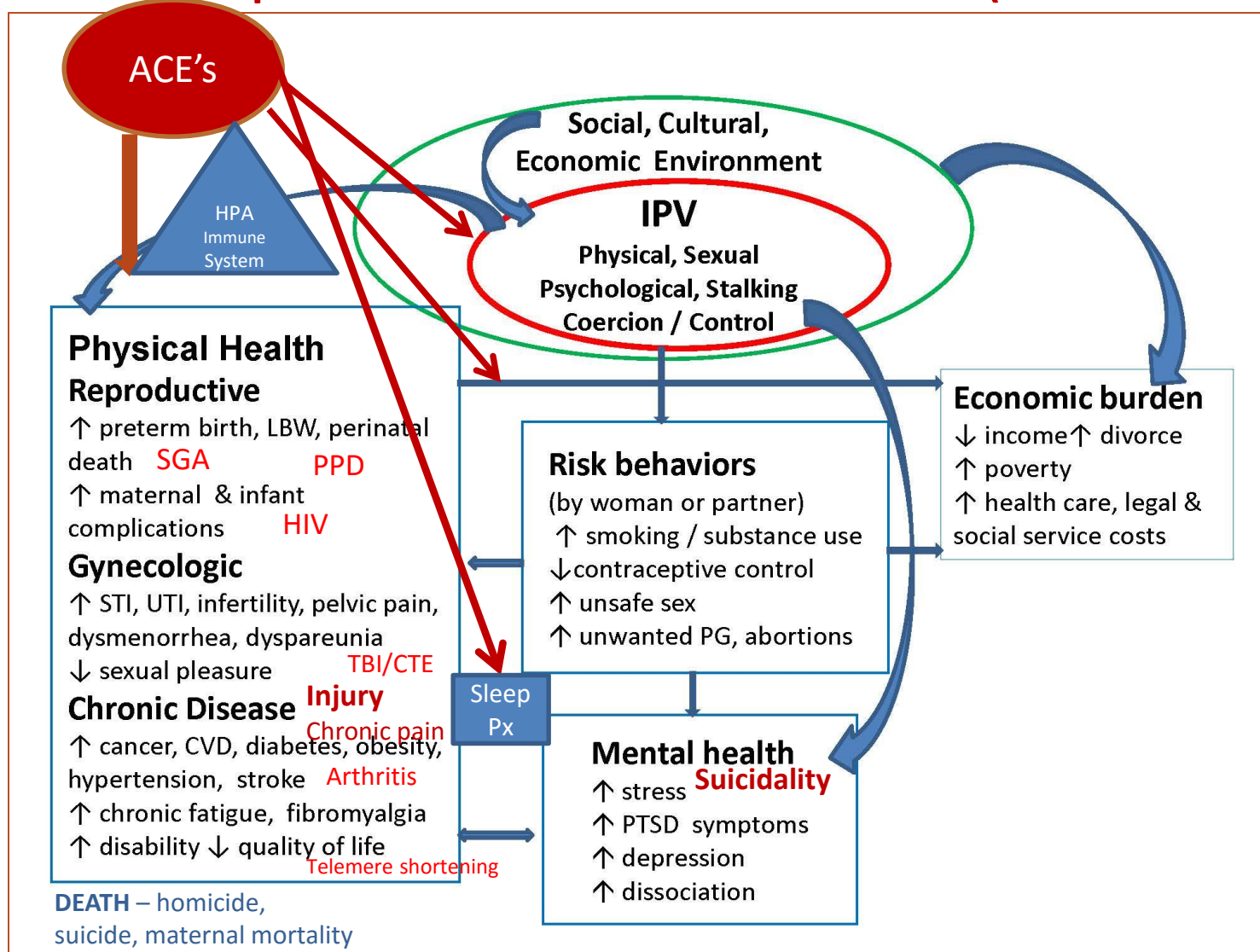
Findings

- In Baltimore – Recent IPV significantly associated with inconsistent condom use AOR =.24 (0.080.72)
 - Forced sex associated with inconsistent condom use - Anal Sex
- Less than half women, abused or not, engage in risky sex behaviors – less than 25% USVI women – significantly less likely than women in Baltimore
- Most of increased risk related to STI's and partner having other partners
- Few demographics independently related to exchange sex or other woman's risk behaviors -
- Recent IPV & past year drug use both independently associated with exchange sex

Forced First Sex/Sexual Initiation

- Forced first sex (sexual initiation) as a result of IPV (“dating violence”) (Stockman et al, 2012)
- Forced first sex 21% of sexual initiation for girls in the US whose sexual debut < 14 yo (Stockman et al ‘09)
- First sexual violence in an ongoing violent relationship?
- In US – anal sex not considered “sexual intercourse” (or “real sex”) by many adolescents – therefore “safe sex” practices not necessary & can remain “abstinent” even if anal sex
 - Abusive young men exploit these myths
 - “He’ll either hit me or quit me” (Sweet-Jemmott ‘05)

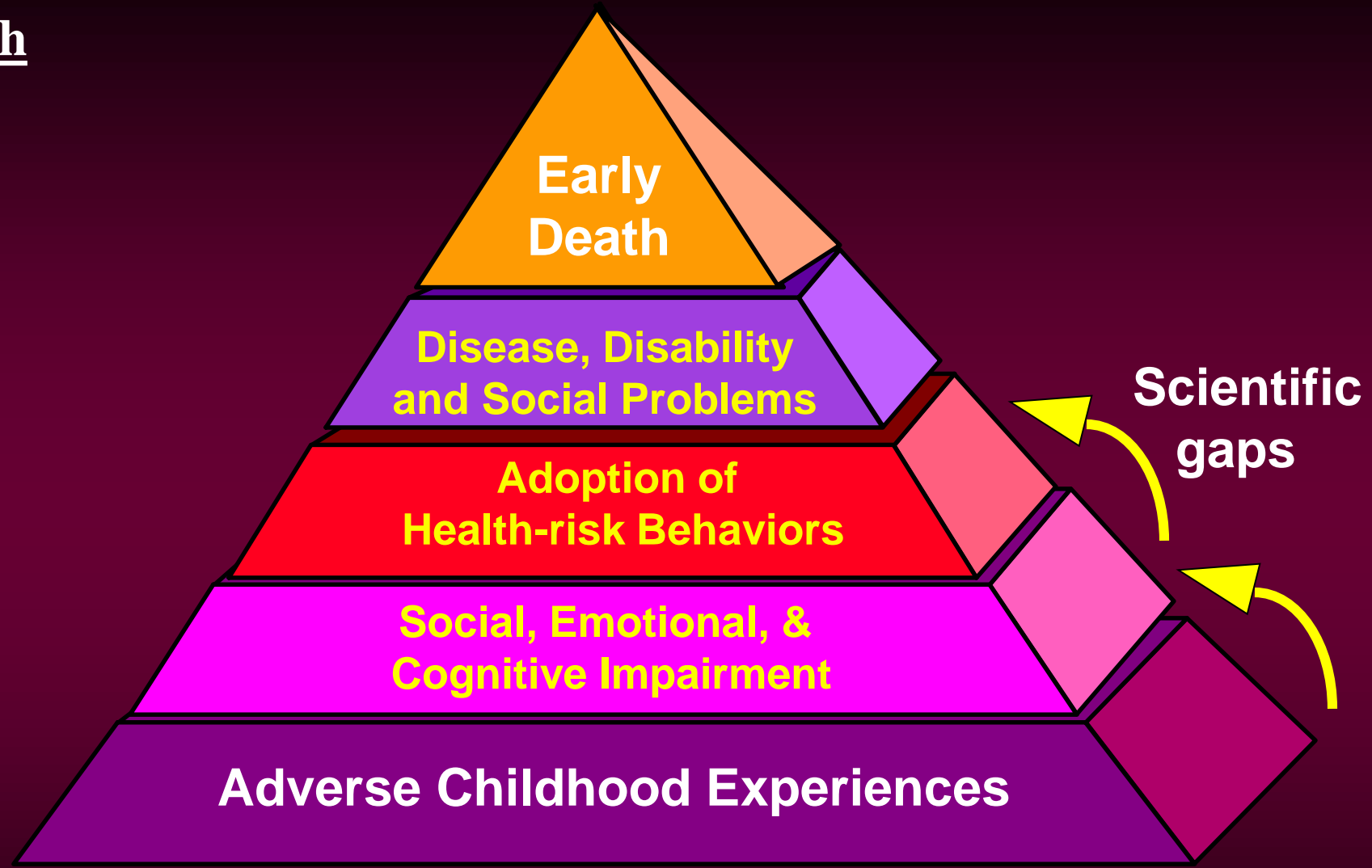
Coker ('10) Framework; adapted Campbell '14 – Trauma Trails (Atkinson)



Biological pathways

- ❖ Much of this evidence is drawn from research in the U.S.
- ❖ Trauma may facilitate transmission
 - ❖ Women are 3X likely to sustain genital injury from assault than from consensual intercourse (McLean, 2011)
 - ❖ Abuse increases the risk for STI four-fold (Campbell, 2008)
 - ❖ Risk of transmission likely higher in young women because vaginal tracts are immature and tear easily during penetration (Glaser, 1991; Jenny, 1990)
 - ❖ Qualitative studies from Africa describe forced sex as physically traumatic and usually unprotected (Phorano, 2005; Strebel, 2006)
- ❖ Impact of IPV on immune system function may increase susceptibility to HIV
 - ❖ Significant associations between IPV and altered red blood cell and decreased T-cell function (Constantino, 2000, Brokaw, 2002)
 - ❖ Other studies have found IPV alters neuropsychological functioning and negatively impacts immune responses related to HSV-1 infection (Stein, 2002; Garcia-Linares, 2004)

Death



Conception

The Adverse Childhood Experiences (ACE) Study

Examines the health and social effects of ACEs throughout the lifespan among 17,421 members of the Kaiser Health Plan in San Diego County

What do we mean by Adverse Childhood Experiences?

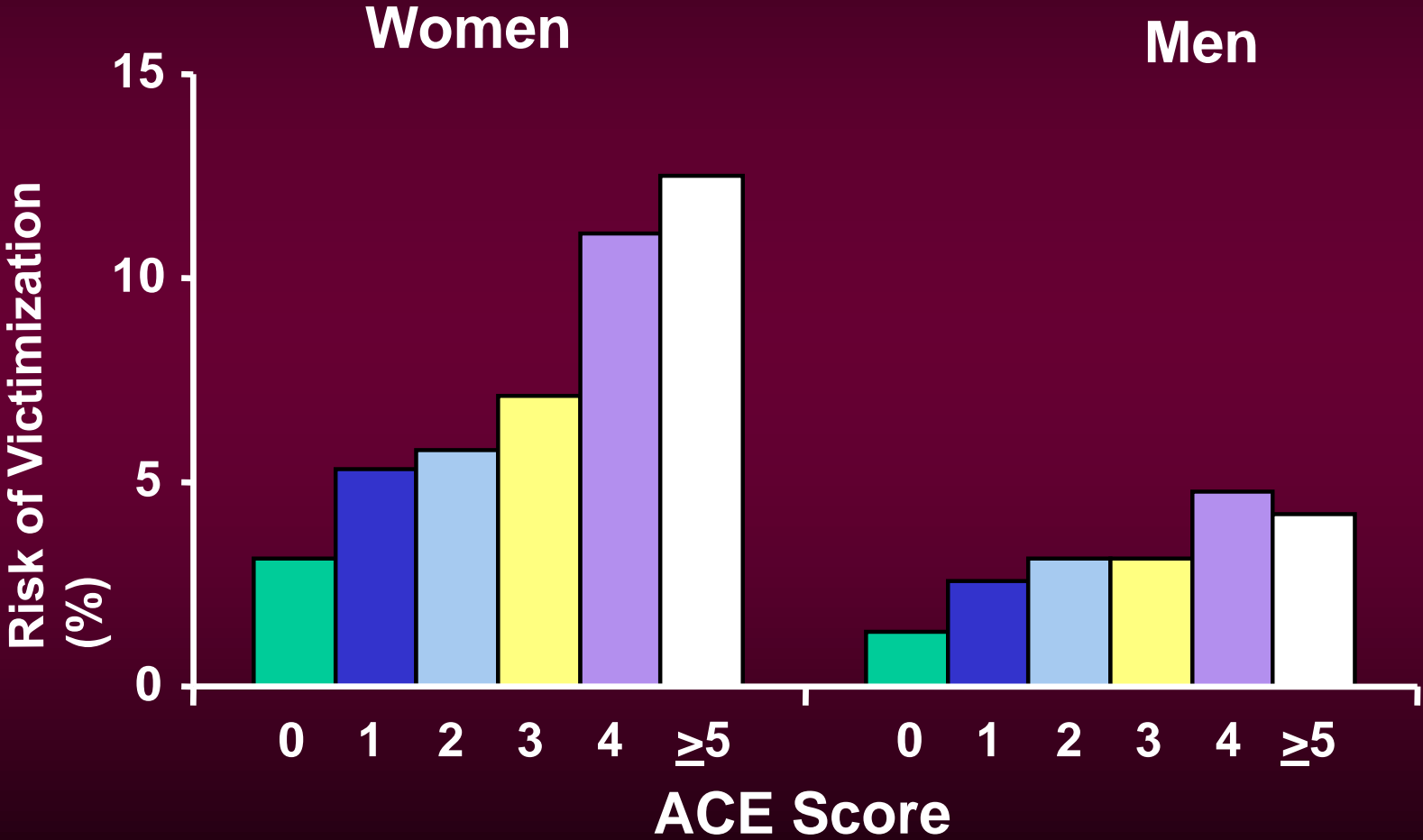
- childhood abuse and neglect**
- growing up with domestic violence, substance abuse or mental illness in the home, parental discord, crime**

Adverse Childhood Experiences As a National Health Issue

ACEs increase the risk of:

- Heart disease
- Chronic Lung disease
- Liver disease
- Suicide
- Injuries
- **HIV and STDs**
- and other risks for the leading causes of death

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



THE EFFECTS OF STRESS ON THE BRAIN



- It is well known that toxic stress can harm the brain's ability to form new memories, recall existing ones and even cause neurons to 'shrink'.
- Stress can re-shape our brains.

**Bypassing Cortex – Adolescent Brains – Risk Behaviors
Toxic Stress Research – Shonkoff 2012 *Pediatrics***

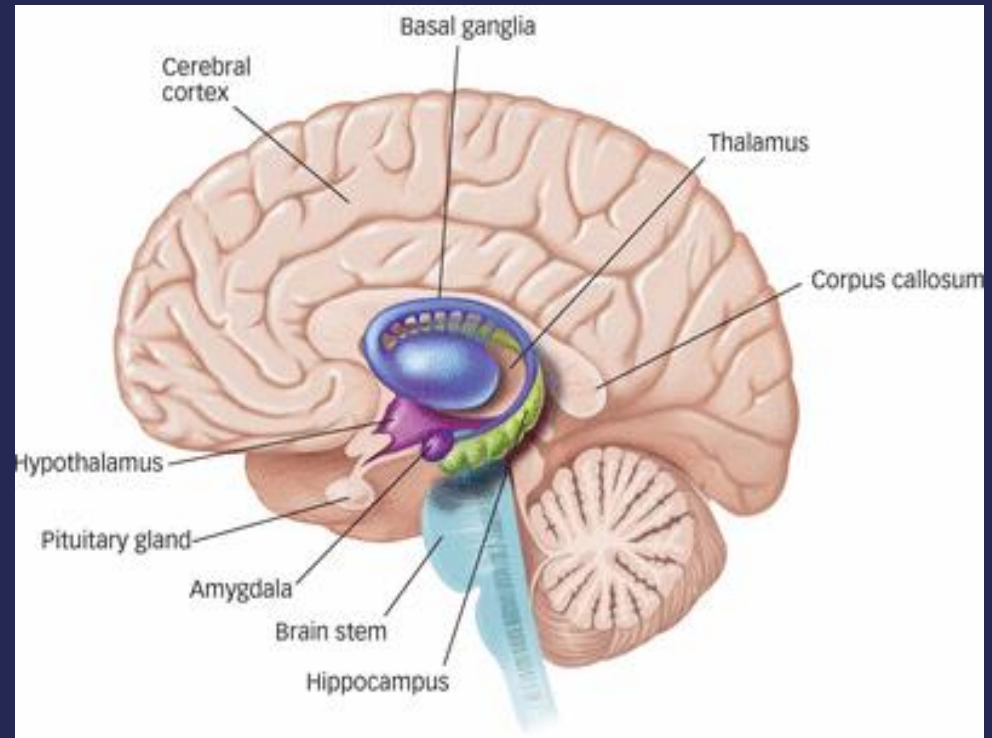
Multiple Stressors for African American Women as Well as Men

- More likely to experience income inequities
- Growing up in neighborhoods characterized by high rates of incarceration, unemployment, poor schools, violence, injustice
- Structural racism and everyday microaggressions
- Relationship violence and sexual assault
- Adverse Childhood Events



STRESS RESPONSE: A CLOSER LOOK

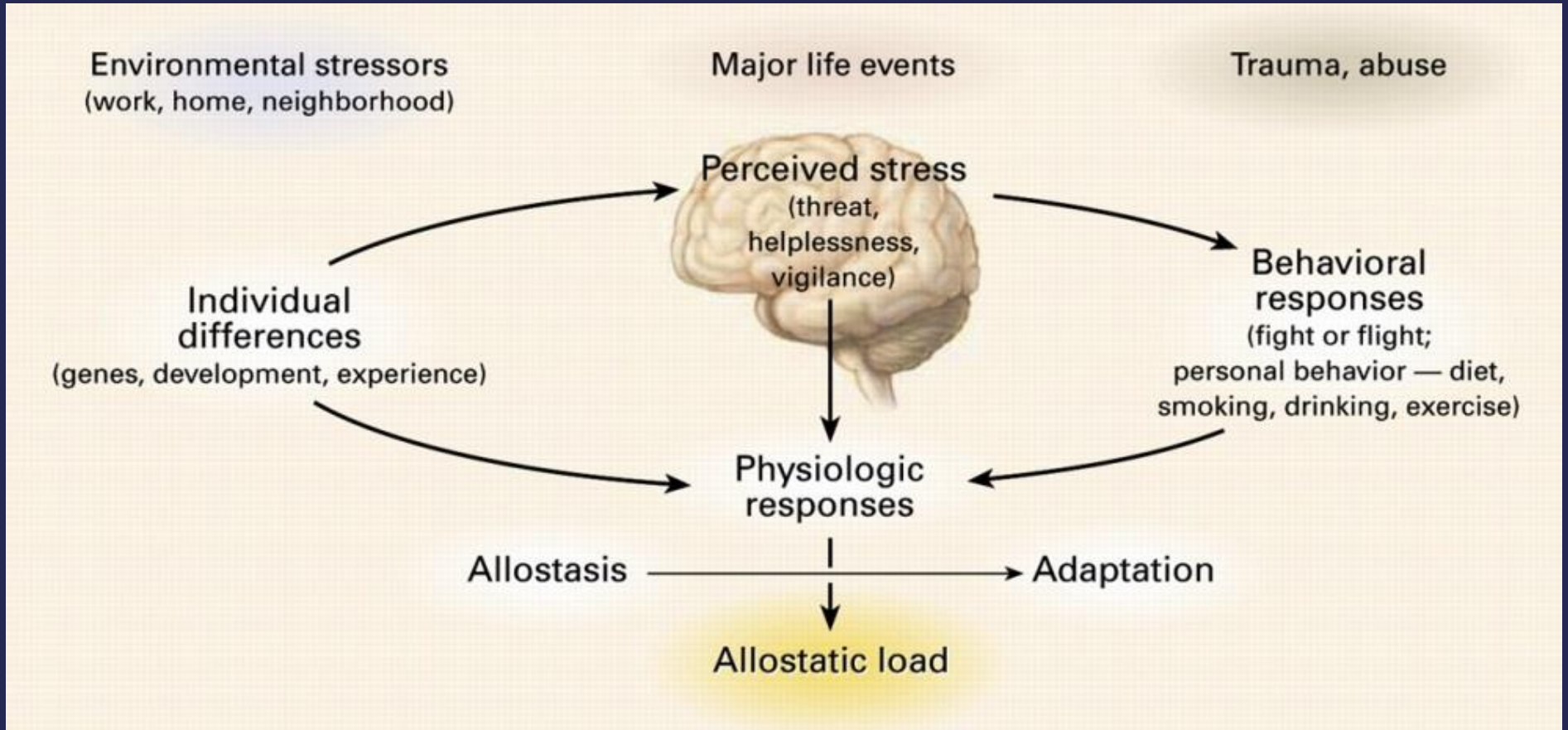
- Two complementary parts
 - Immediate effects
 - Longer-lasting
- Amygdala reacts to stressor by alerting hypothalamus
- Hypothalamus activates the sympathetic nervous system (SNS)



STRESS AND ADOLESCENT BRAIN DEVELOPMENT

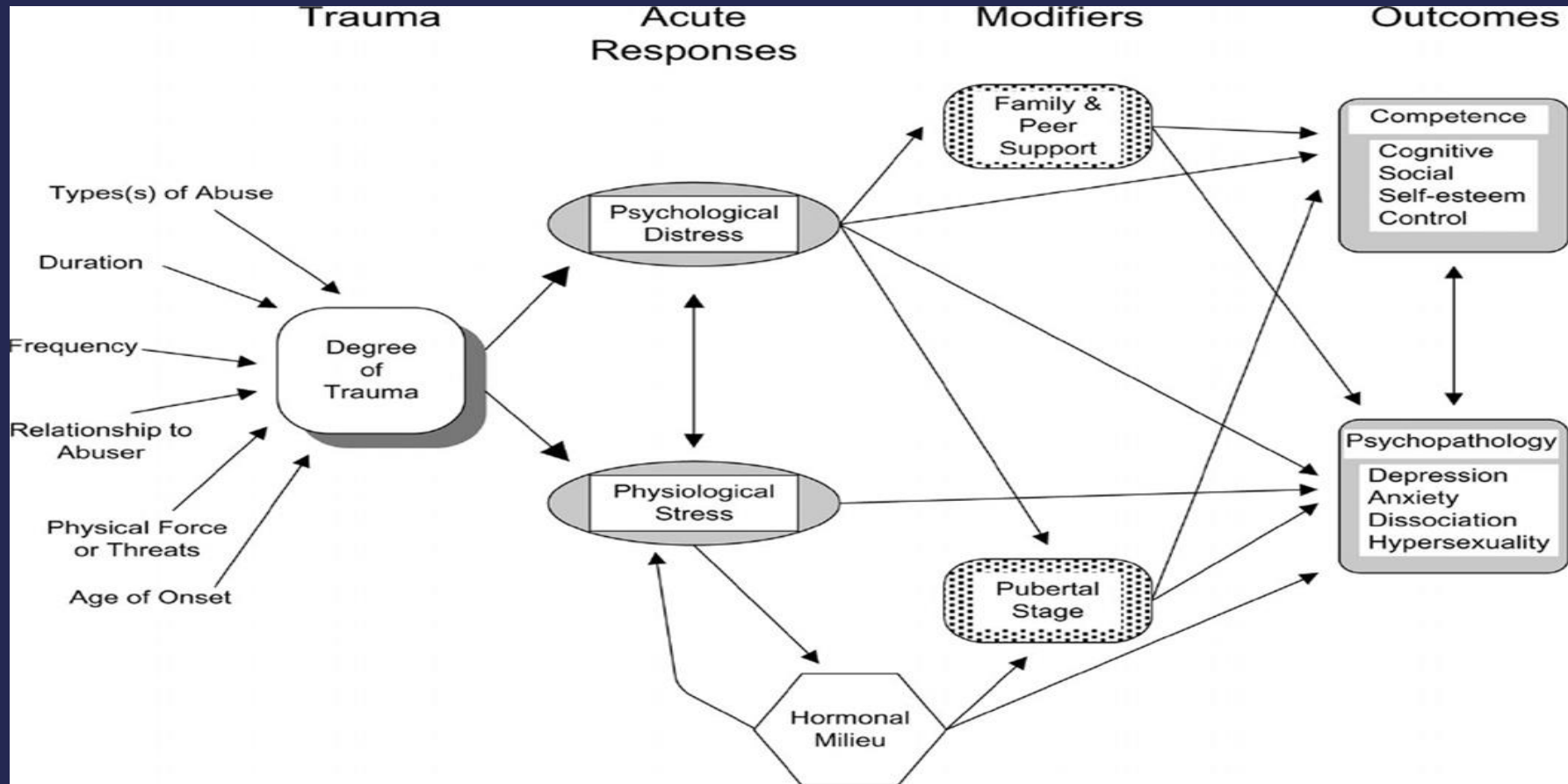
- Stress pathways are heightened during adolescence (Walker et al., 2004)
- Adolescence is characterized by a prolonged activation in response to stressors as compared to adulthood (McCormick & Matthews, 2007)
- Increased cortisol impairs functioning of the prefrontal cortex and chronic stress causes dendritic retraction in the prefrontal cortex (Casey et al., 2010)
- Stress can cause physical changes in the brain that result in changes in behavior (Casey et al., 2010)
 - Increases the size of the amygdala
 - Decreases the size of the hippocampus

STRESS RESPONSE



McEwen BS. New England J Med. 1998;338:171-179.

TRAUMA AND STRESS



Trickett et al., Dev Psychopathol. 2011;23(2):453-476.

TRAUMA AND STRESS

- Normal stress response can be affected by the:
 1. immediate, objective sexual violence incident
 2. physical and psychological violence that usually accompany sexual violence
 3. continued subjective re-experiencing after the trauma (Wessa et al., 2006; Trickett et al., 2010)
- Chronic activation of the HPA axis brings about adverse changes to the immune system (Glaser & Kiecolt-Glaser, 2005)
- Stress response may remain heightened years after the original trauma or stressor (Heim et al., 2010)

EARLY STRESS AND HIV

- Early life adversity impacts high-risk sex later in life (Tulloch et al., 2015)
- Each additional early life violent event (e.g., physical abuse, sexual abuse, neglect, verbal violence, or witnessed violence) associated with an elevated odds of HIV infection (aOR: 1.32; 95% CI: 1.16-1.50)
 - Evidence that PTSD partially mediated the relationship between early life events and HIV (aOR=1.14; 95% CI: 1.02-1.28) (Reisner et al., 2011)
 - Additional traumas of adolescence and adult sexual assault & HIV not considered
- Childhood sexual abuse and HIV sexual risk mediated through effect on fewer personal resiliency resources (Lamoureux et al., 2012)

IMMUNE SYSTEM EFFECTS

- **HPA axis – hypothalamic – pituitary – adrenal gland complex interactions**
- **Stress of ACES, adolescent & adult IPV, multiplied by poverty, racism for women of color, other stressors – but even separate from other stressors - activates HPA & produces corticosteroids & catecholamines**
- **Suppresses Th1 cell cytokine (fights bacteria & viruses) production - disrupting regulation of cytokines (Glaser & Kiecolt-Glaser, 2005; Ghosh, Rodriguez-Garcia, & Wira, 2012)**
- **Depression has same effects on immune system**
- **May result in lowered immunity to HIV**
- **May contribute to faster decrease in CD4 count, more development of complications of AIDS, more death**
 - Stress/PTSD/depression leads to decreased CD4 counts in HIV+ women – Ickovics, '01; Leserman '03, '08
 - Machtinger – '14 - deaths from homicide and suicide
 - Anderson (2016) association of IPV and decreased CD4 count

Physiological Effects of IPV & trauma on Immune System Complex & not totally clear

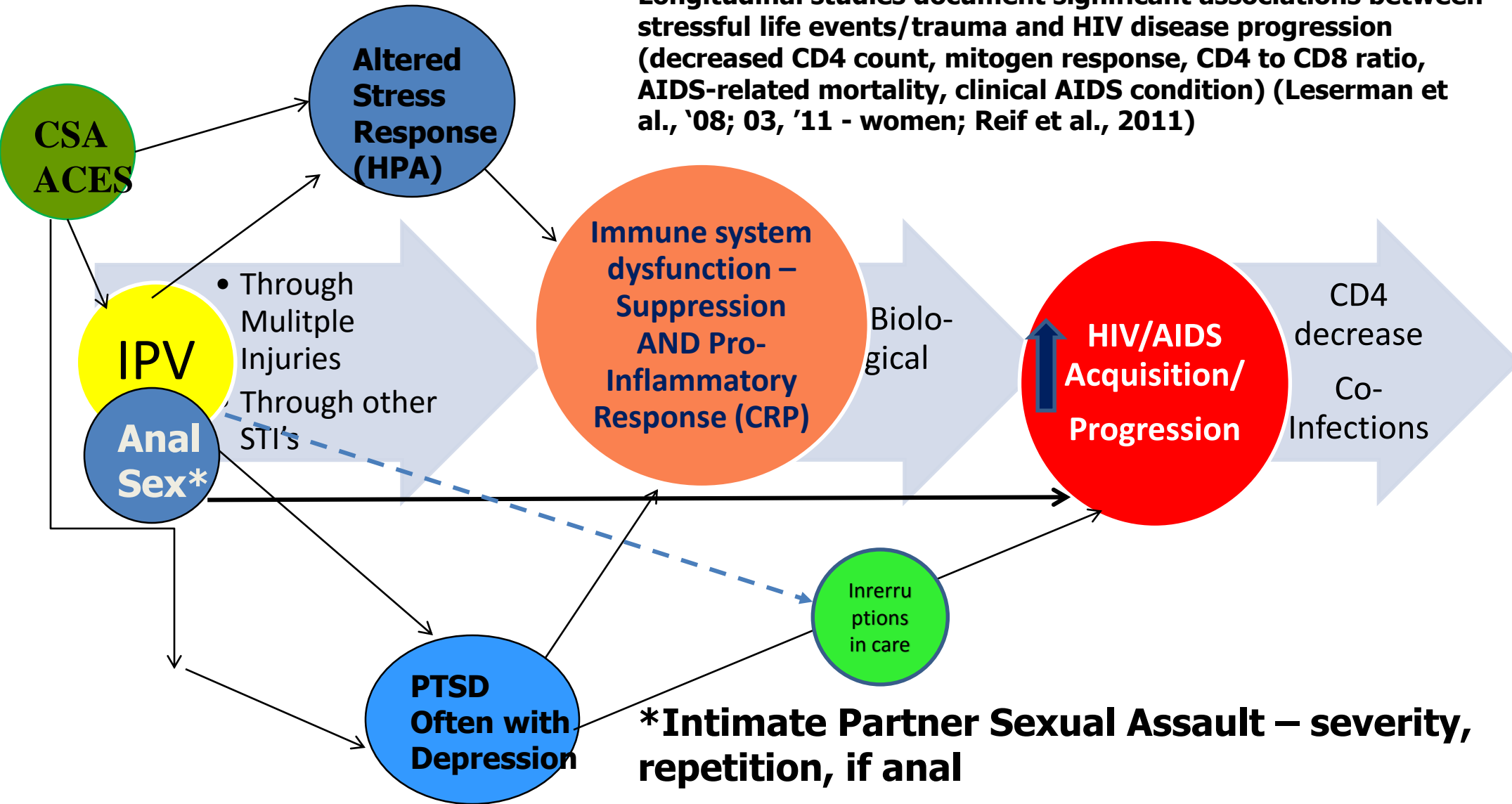
- PTSD & co-morbidity differential effects (Woods '04)?
- Immune system dysfunction is both suppression AND activation
- Inflammation markers C-reactive protein (CRP) and interleukin-6 (IL-6) increase w/IPV – Newton '11; Granger, S. Woods – '11
- Multiple physical injuries from IPV – e.g. strangulation, TBI, also leads to immune system effects
- CSA/CAN – stress response & immune system – early alterations more profound? ACES – neurobiological effects – lifetime trauma of racism and inequities also – Toxic Stress - African American women's lives. Compounded with adult IPV? (both independent effects – S. Woods) (Swartz et al 2014) – all for women
- Immune system activation leads to decreased vaginal wall barrier to HIV virus – immune system activated with STI's also – IPV associated with increased STI's

Need More Answers

- STI interactions – repeated, multiple, untreated, affecting immune system –inflammation significantly increased acquisition of HIV – multiple immunology studies – (Wira 2013)
 - What about for men?
- Issues of menstrual cycle, young age
- Friability of urinary & vaginal tissue – increased by inflammation?
- Interactions with chronic pain
- How to measure, when to measure –
- How much of sex & racial differences in HIV (transmission, progression, mortality) related to ongoing SV (IPV) – men as well as females
- How to fully capture complexity of humans – physiological as well as psychosocial effects of trauma – holism of nursing

Physiological Model For IPV-HIV Acquisition/Progression (Campbell et al 2013)

Longitudinal studies document significant associations between stressful life events/trauma and HIV disease progression (decreased CD4 count, mitogen response, CD4 to CD8 ratio, AIDS-related mortality, clinical AIDS condition) (Leserman et al., '08; 03, '11 - women; Reif et al., 2011)



Interventions that work – How to include trauma informed care; Attention to Physiological into Prevention/Intervention studies?

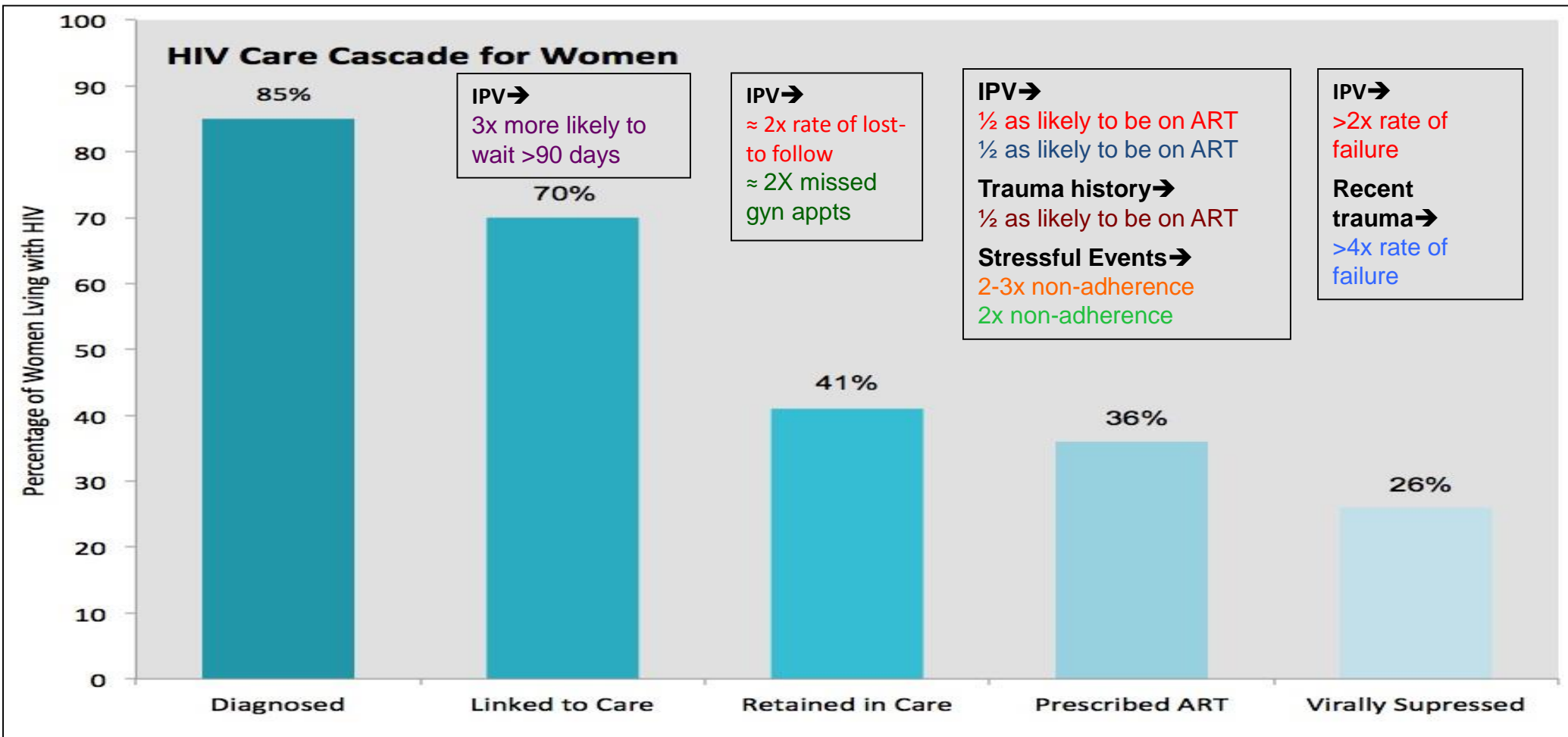
- DOVE intervention in home visitation – decreases IPV among pregnant women at 18 mos (Sharps et al 2016); Tiwari (Hong Kong); Keily (USA) interventions in prenatal care – Decreasing IPV takes time – Jewkes '14
- Testing combination of Sister to Sister (Sweet-Jemmott) & DOVE in USVI – ESP
 - What about for young men?
- IMAGE trial in South Africa – microfinance and community based interventions – decreased IPV among women
- Stepping Stones (Jewkes 2012) South Africa – decreased IPV perpetration but not HIV
- SASA Trial –Uganda – Abramsky... Michau, Watts et al. BMC Medicine 2014, 12:122 – community based activism – Raising Voices – significantly less concurrent sex by male partners, more ability to refuse sex by women, less community acceptance of IPV; also 52% less IPV but not significant.
- **SHARE Trial – Wagman 2014 (*Lancet Global Health*)** – clinical trial in Uganda – reduced IPV & HIV! – combination of community and advocacy work with individual women
- **SEPA RCT Trial in Miami – (Peragallo '10)** significantly reduced IPV & HIV among Latinas
- Maman trials in Tanzania – addressing IPV in HIV testing & counseling –promising preliminary results
- Bass Trials in DRC (*Lancet 2013*) – reduced PTSD & violence victimization – child soldiers – male as well as female rape survivors – community workers implemented

Once women (and men) HIV+

- Need for HIV care providers of women and men – screen for HIV, collaborate with DV advocacy organizations, connect the dots for them in terms of interference with medications etc
- Need to start incorporating physiological considerations into monitoring & treatment
- Need for shelters/DV advocacy organizations be comfortable with HIV prevention AND care & services for men
- HIV testing and counseling – needs to take into account IPV – routine screening for IPV
- HIV/IPV Inter-agency Task Force Report 2013 - women – need one for men
- Suicide and homicide risk

Moving Forward

- Exciting New Collaborative interdisciplinary research teams of basic sciences, physiology, epidemiologists, behavioral & clinical scientists & advocates – e.g. ESSENCE study; Anderson F31, ESP study, Cavanaugh & Alexander - shelters
- Official and increasing recognition of full complexity of interfaces by UN, US State Dept, USAID, WHO, CDC, DHHS, NIH. SAMHSA, US Congressional “BrainTrust” – Trauma Informed Care – Brain science
- Need for more research – how much of racial/ethnic inequities in HIV prevalence & deaths related to IPV & testing combined interventions
- But enough evidence to fully include IPV in HIV Tx & Prevention programs – e.g. discordant couple counseling - trauma informed
 - Screening for IPV & HIV in pregnant women
 - Screening for IPV & HIV risk behaviors in all women
 - Screening for IPV among MSM
- National strategies - include measurable GBV/HIV outcomes
- Work with medicaid & HRSA to implement screening & brief counseling for IPV into ALL primary and ongoing services care for women & men (e.g. VA) – include measurable outcomes related to gender & health inequities



Siemieniuk RA, et al. AIDS Patient Care STDs. 2010

Siemieniuk, RA, et al. J Acquir Immune Defic Syndr. 2013

Illangasekare, S., et al. Women's Health Issues. 2012

Kalokhe, A.S., et al. AIDS Patient Care and STDs. 2012

Cohen, M.H., et al. American Journal of Public Health. 2004

Lesserman, J. et al. AIDS PATIENT CARE and STDs. 2008

Mugavero, MJ, et al. Psychosomatic Medicine. 2009.

Machtinger EL, et al. AIDS and Behavior. 2012

CDC, 2012. <http://aids.gov/federal-resources/policies/care-continuum/>

Machtinger 2012

Points Along the “Care Cascade” for Intervention for IPV & Physiological Research (Machtinger, ‘14)

- Increase prevention strategies for women victimized by IPV – prevention complicated and transmission enhanced by IPV
- Enhance immune system function (compromised by IPV)
- Decrease delay to testing related to IPV
- Decrease delay linkage to care related to IPV (IPV X3)
- Decrease loss to follow up related to IPV (IPV X2)
- Increase ARV use (IPV < ½ as likely) and consistent use
- Increase viral suppression (IPV >2X failure; recent trauma > 4X failure)

Personalized – “trauma informed” safety strategies

- Increase prevention strategies for women victimized by IPV – prevention complicated & transmission enhanced by IPV - need community interventions & need research testing
 - Routine screening for IPV in health care system including forced sex
 - Provide “warm referral” www.futureswithoutviolence.org to identified safety planning & homicide risk - danger assessment – forced sex – MyPlan www.joinonelove.com
 - Identify links of IPV to her health problems (e.g. sleeping px, chronic pain, depression, STI’s) – if depressed, suicidality assessment & Tx
 - Possible stress reduction strategies &/or MH Tx
 - Assessment for HIV risk – Futures w/out Violence – All Partners Are Not the Same – assess his risk – abusing partners likely to have other partners, getting him tested
 - Strategize on possible safe sex options – especially if forced sex – making condoms attractive – e.g. “cheeking” (Sister to Sister - CDC) female condoms for anal sex or prescribed by health care provider – ESP study

Personalized “Trauma Informed” safety strategies

- Enhance immune system function (compromised by IPV & ACES & ongoing trauma) - need research on how to do!! – Does Tx for Complex PTSD address physiology – adding physiological outcomes?
- Decrease delay to testing related to IPV
 - Discuss how to disclose status to him without face to face disclosure increasing risk of IPV www.sotheycanknow.com
 - Decrease stigma of her various risk issues – substance abuse, exchange sex, multiple partners, not negotiating safe sex etc
 - Work in DV Shelters and Advocacy Organizations – at Health Clinics within shelters collaborations with
 - PeP and PrEP considerations for women victimized by GBV

“Warm” Referrals (www.futureswithoutviolence.org) - actual personal linkage to trauma interventions for those with lifetime trauma

National Registry of Evidence-Based Program and Practices:
17 interventions for lifetime trauma; 10 for PTSD

Examples (not comprehensive) Include:

Seeking Safety

Living in the Face of Trauma (LIFT)

Skills Training in Affective & Interpersonal Regulation (STAIR)

International: Stepping Stones, IMAGE, SHARE

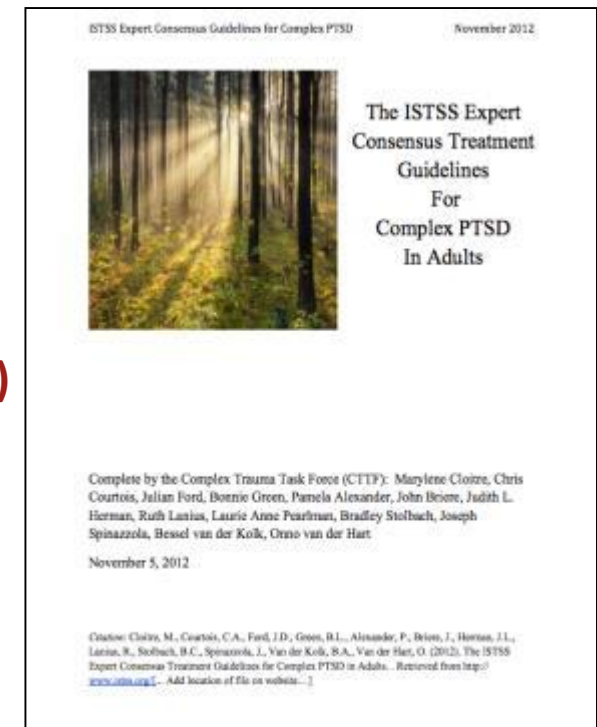
Trauma Recovery and Empowerment Model (TREM)

Eye Movement and Desensitization and Reprocessing (EMDR)

Trauma-focused cognitive Behavioral Therapy (CBT)

Prolonged exposure therapy for PTSD

Bass trial in DRC – effective PTSD Tx given by health workers



Bottom Line

- Epidemiology & social science research shows part of the way
- Biology shows part of the way
- Mental health important
- Physical health important – all aspects of
- Research addressing “whole” person – biological – tissue involved – plus entire body physiology – combined with behavioral – quintessentially nursing - holism
- Biology part of intervention research – both prevention & Tx – Intervention for the mental & physical health effects of ongoing trauma as well as the violence as well as the HIV
- HIV Acquisition AND Progression