STRIVE
Tackling the structural drivers of HIV

The tale of two epidemics: why violence prevention should be part of an HIV prevention response for young women

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SA AIDS, Durban, June 2015

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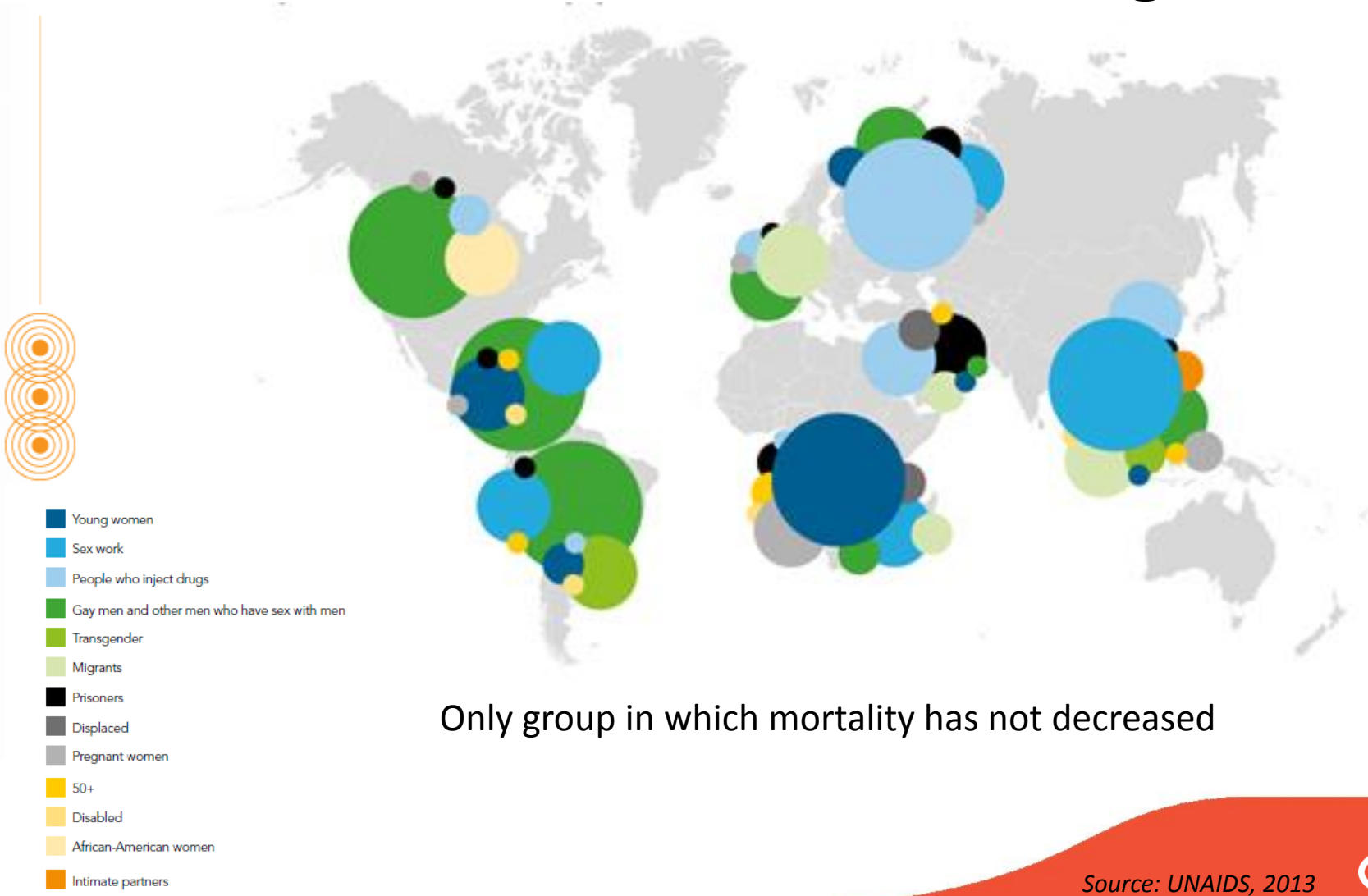
Dedicated to the memory of a young FACTS 001 participant who was abducted and murdered early on in her participation in the trial

Outline

- Global burden of HIV and gender-based violence (GBV) amongst adolescent girls and young women (AGYW)
- GBV increases HIV risk
- GBV has marked impact on continuum of HIV prevention, treatment and care continuum
- Linking programme responses to HIV and GBV for AGYW

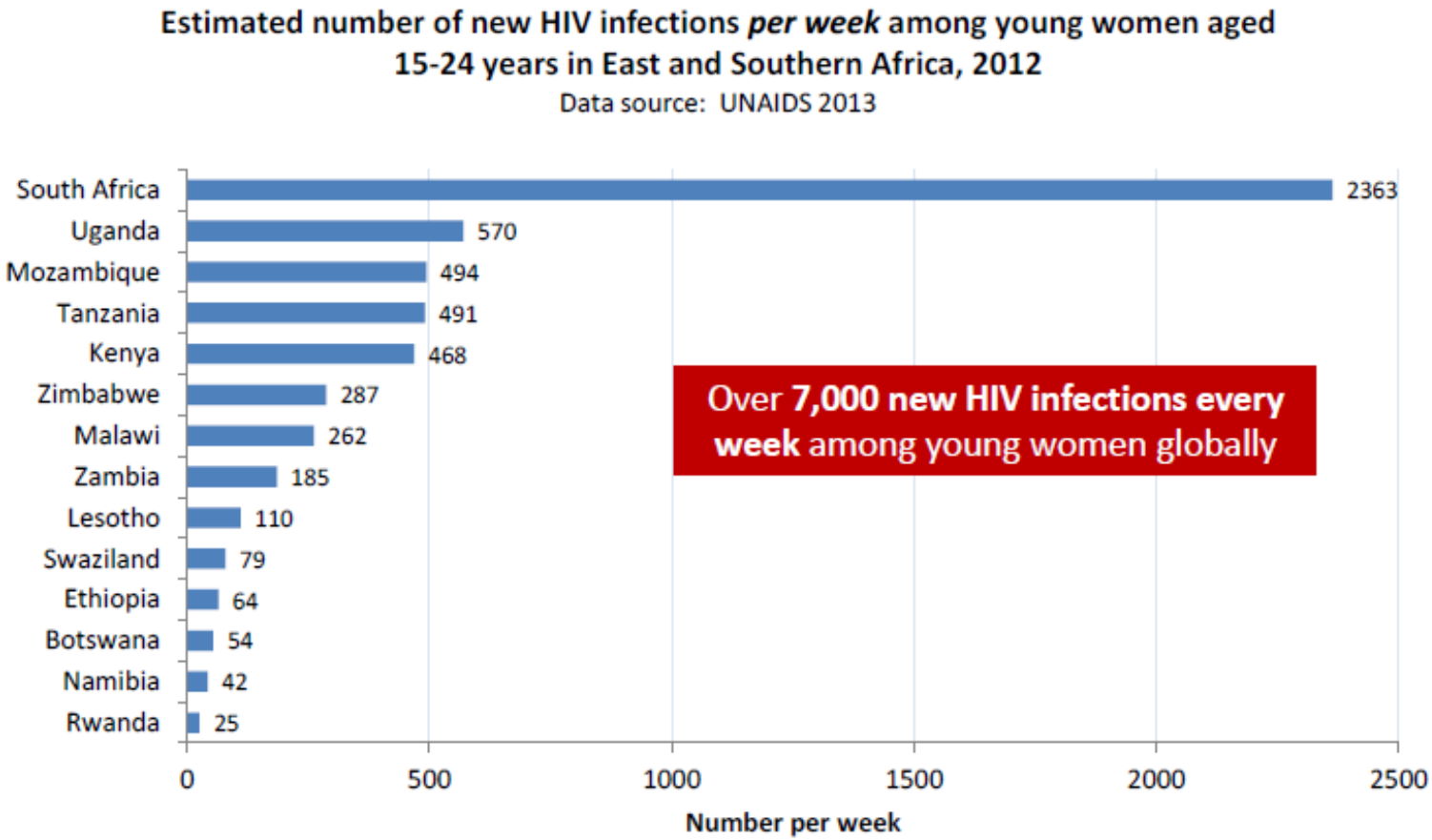
2.1 million adolescents are living with HIV.



Only group in which mortality has not decreased

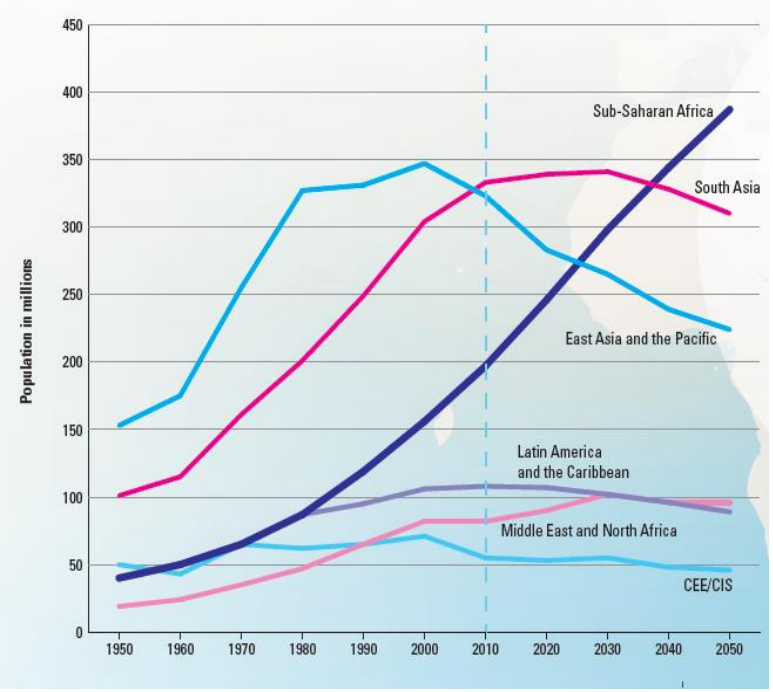
Source: UNAIDS, 2013

One-third of new infections globally occur



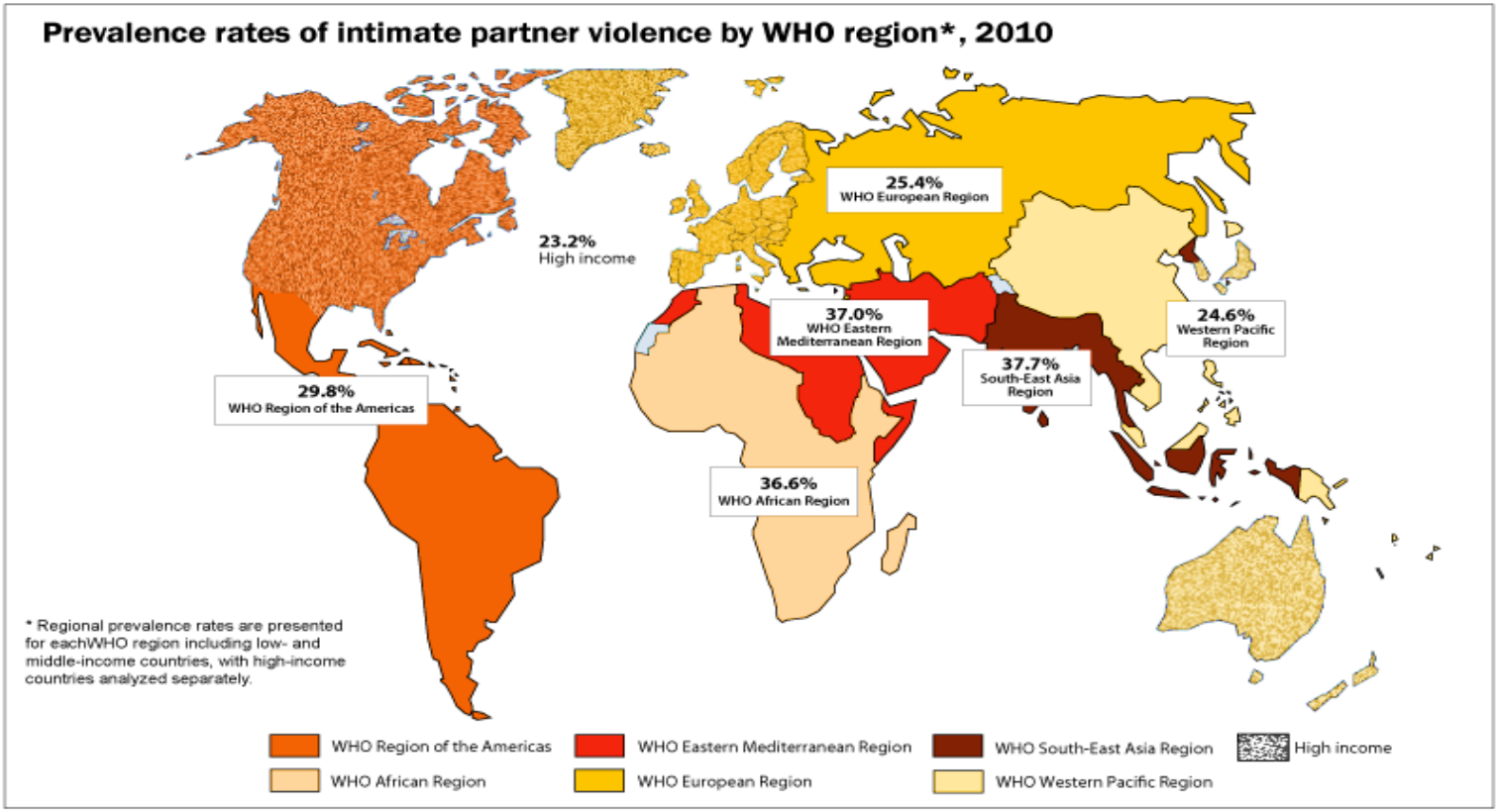
Increase in population susceptible to HIV

- 1.2 million people aged 10-19 years
  - one-fifth of global population
- By 2050, Sub-Saharan Africa is projected to have more adolescents than any other region
  - Growing population susceptible to infection
  - Need to increase prevention efforts to achieve Fast-track goals



Population of adolescents 10-19 years old in millions, by region, 1950-2010
Source: UNICEF, 2012

Globally 1 in 3 women (30%) will experience physical and/or sexual violence by an intimate partner

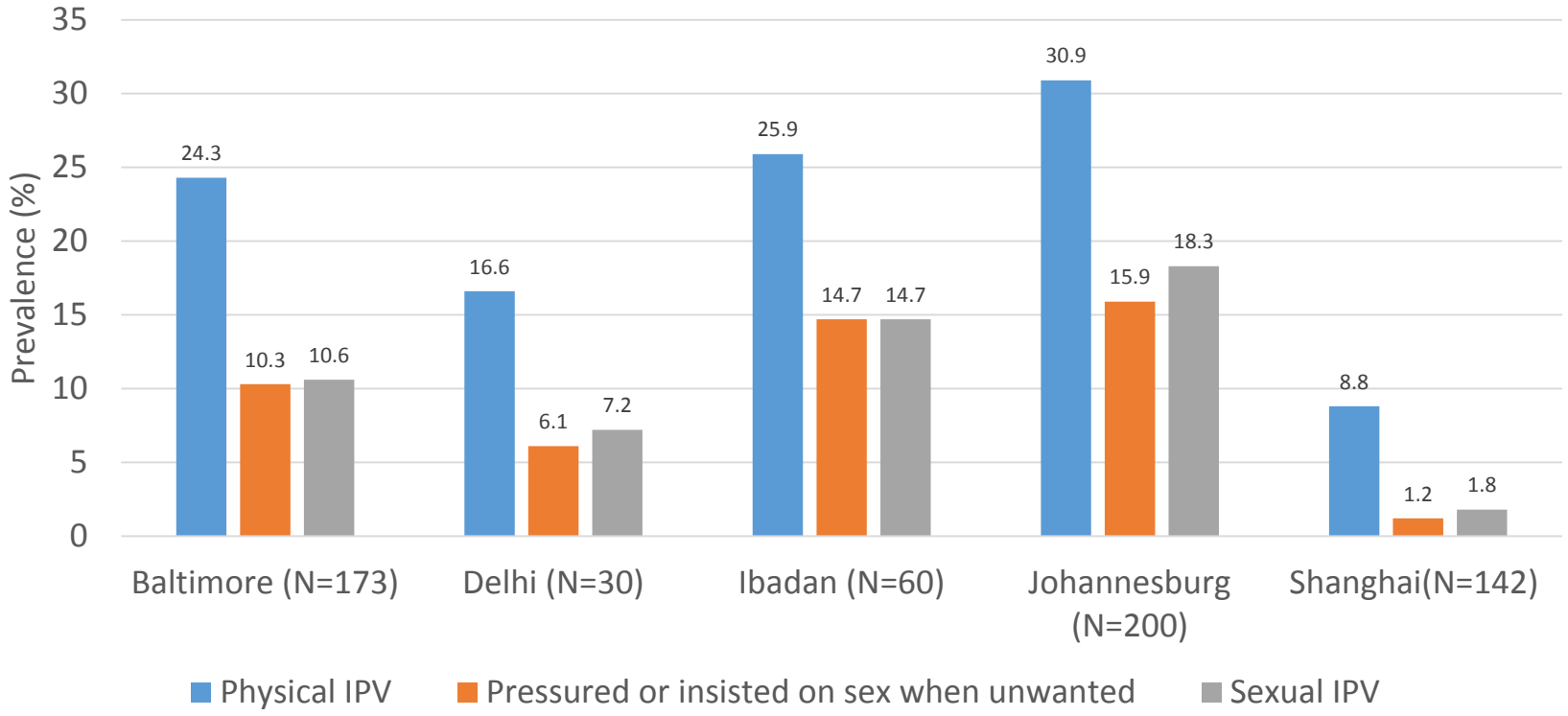


Data Source: *Global and regional estimates of violence against women*. WHO, 2013.

World Health Organization

High prevalence of past-year intimate partner violence, among ever-partnered women (15-19 years)

Source: Decker, 2014



- IPV and non-partner sexual violence associated with a range of poor health outcomes in this population and more generally

Heise, 2014; Day, 2005

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Young key populations experience high rates of partner violence and sexual assault

- Sex workers
  - Life time prevalence of any violence 45-75%
  - Young trafficked sex workers may experience rape to coerce them to sell sex
- MSM
  - First experience of forced sex during adolescence
- PWID
  - Sexual assault associated with drug use (own or partner)

Source: Delany-Moretlwe, 2015

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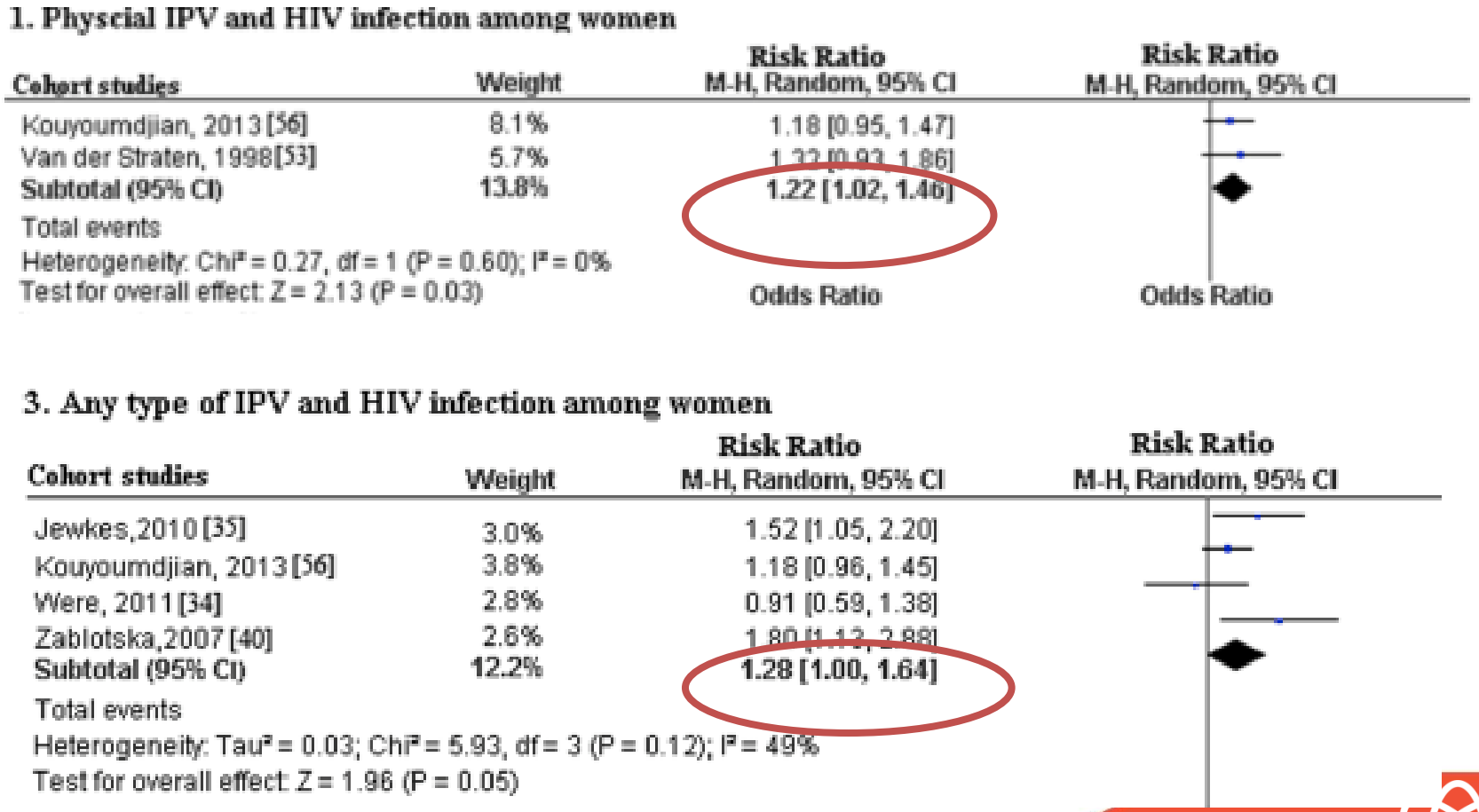
Violence against women is associated with incident HIV infection



Li, JIAS 2014

Associations not only between violence and HIV, but also with unequal relationship power

Incidence and relative incidence of HIV infection, by exposure to forms of violence and inequity

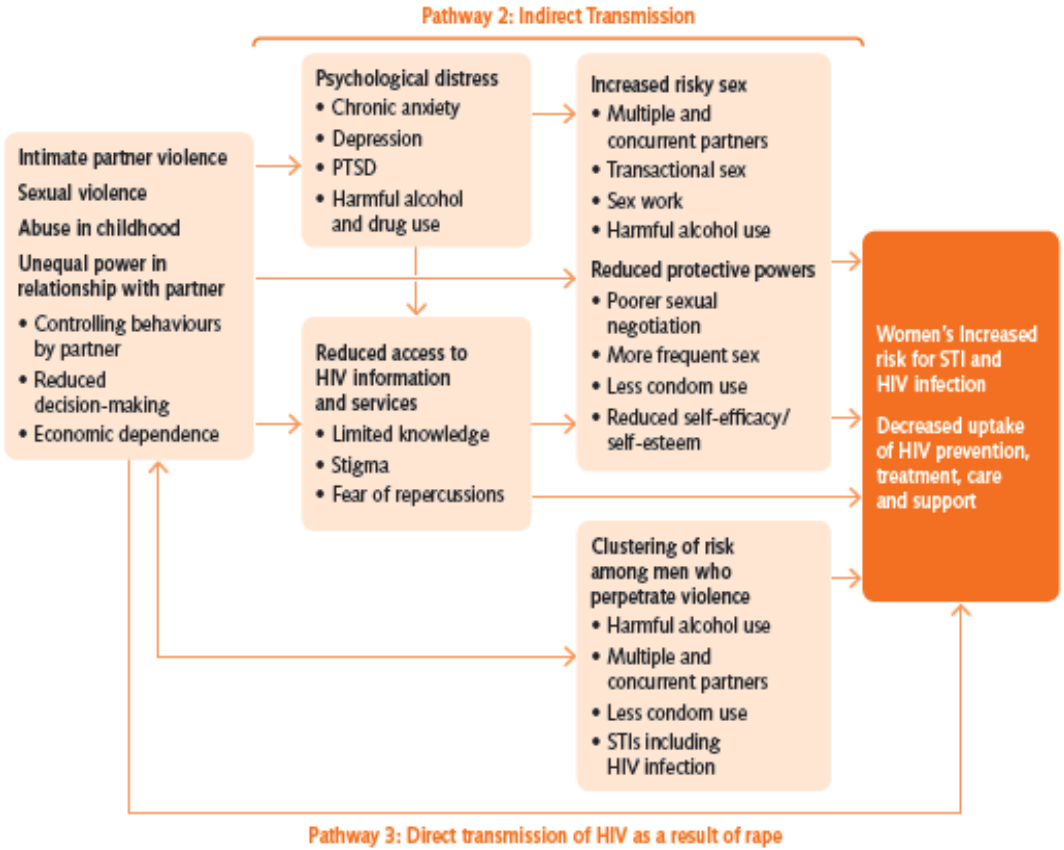
	Number of seroconverters	Person-years	Incidence (per 100 person-years)	IRR (95% CI)	HSV2-adjusted IRR (95% CI)*
Relationship power†					
Medium or high equity	73	1334·7	5·5	1·00	1·00
Low equity	51	601·3	8·5	1·55 (1·08–2·23)	1·54 (1·07–2·22)
Physical or sexual intimate partner violence‡					
None or one	83	1607·7	5·2	1·00	1·00
>1 episode	45	469·0	9·6	1·80 (1·24–2·59)	1·69 (1·17–2·46)
Rape by a non-partner					
None	121	1973·3	6·1	1·00	1·00
Rape by a non-partner	7	103·4	6·8	1·11 (0·52–2·38)	0·98 (0·46–2·11)

Source: Jewkes, Lancet 2010

- 23% physical or sexual IPV, 5% rape by non-partner
- IPV more frequent in unequal relationships (29% vs. 22%)
- Rape not associated with incident HIV

- Increasing evidence for the associations between physical violence, verbal abuse, and male controlling behaviours *(Kouyoumdjian, 2013; Durevall, 2014)*

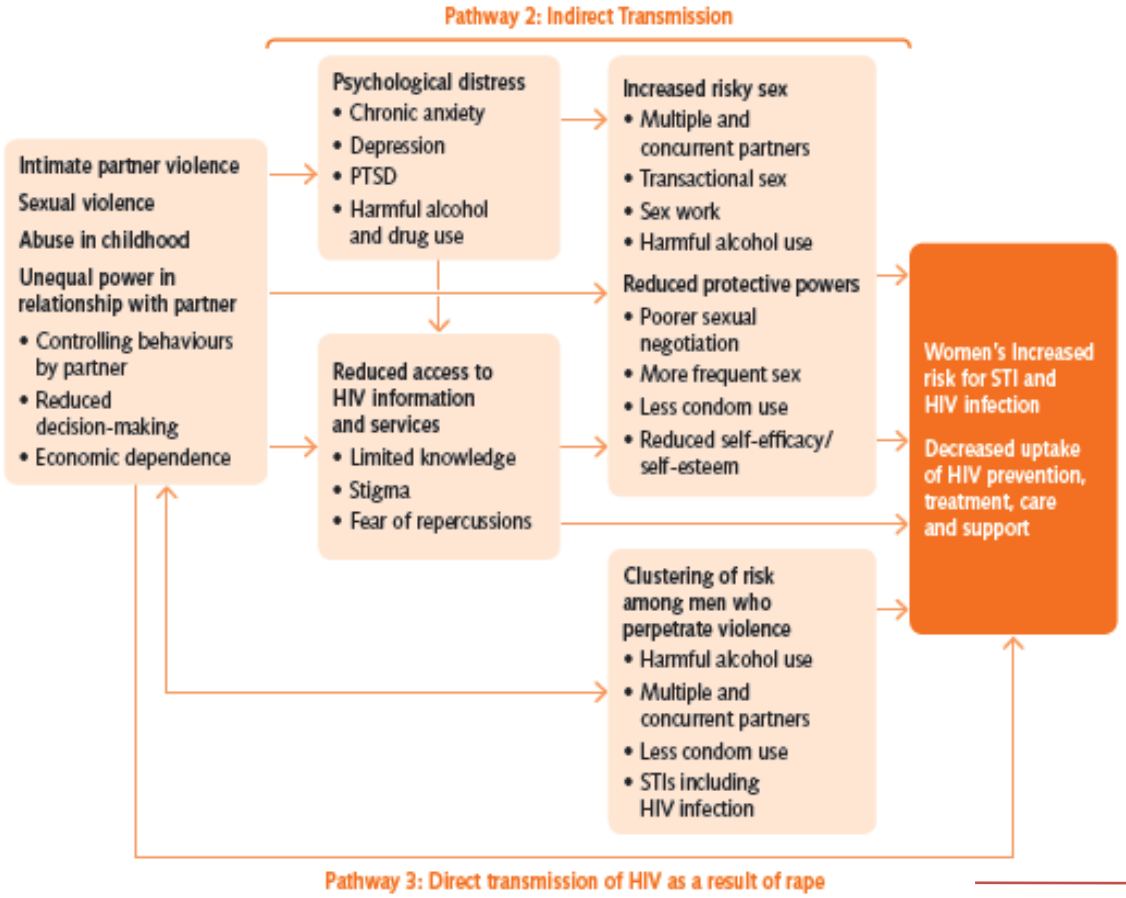
Direct and indirect pathways by which violence increases HIV risk



1. Direct effects of sexual violence
2. Common underlying risk factor = gender inequality
3. Indirect factor for risk
4. Violence as an outcome of HIV status

Source: WHO, 2013

Direct and indirect pathways by which violence increases HIV risk

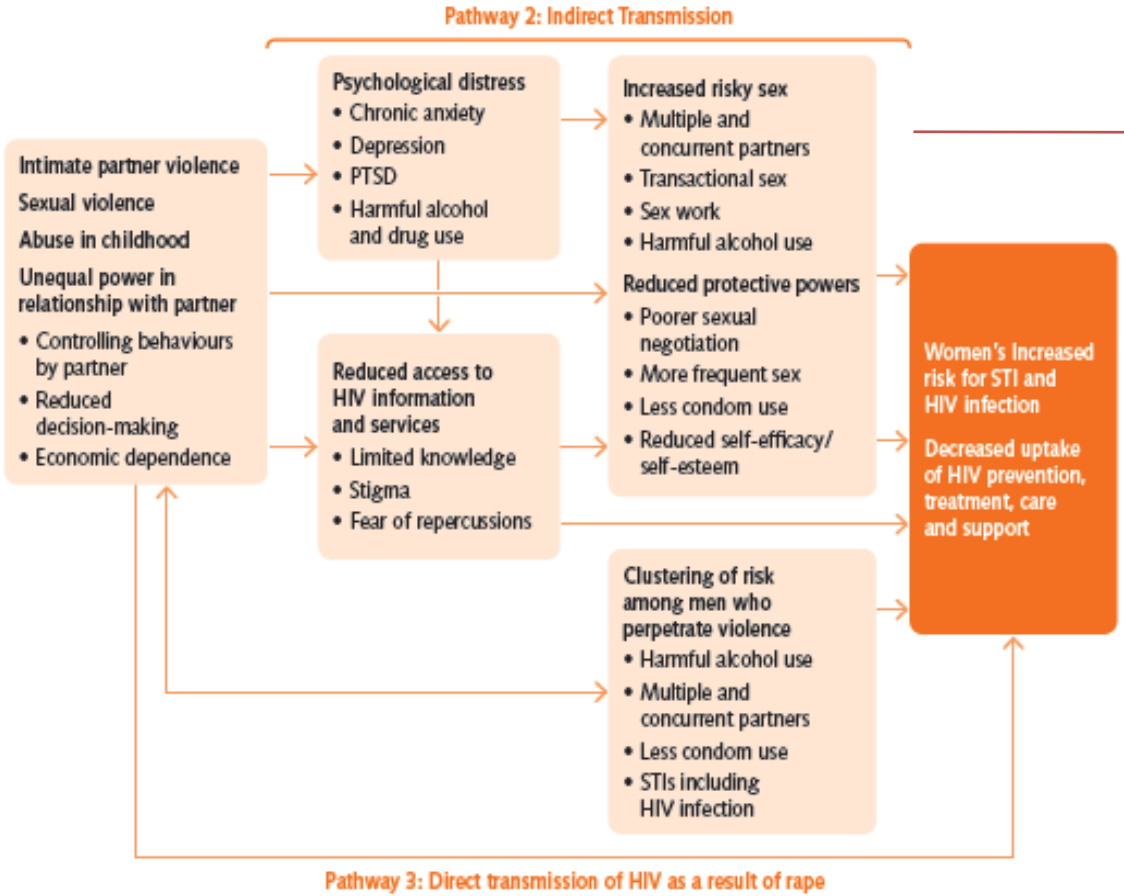


Biological plausibility

- Genital injury
- Frequency of forced sex
- Type of sex e.g. anal sex
- Presence of ectopy
- Partner viral load

Source: WHO, 2013

Direct and indirect pathways by which violence increases HIV risk



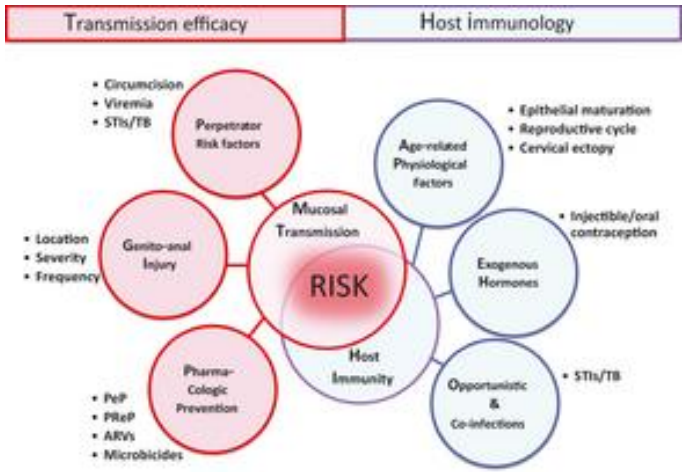
- Biological mechanism?

Source: WHO, 2013

Immunology of violence – emerging evidence

HIV infection is associated with inflammation and immune activation

- Genital injury and exposure to HIV/STI as a result of sexual violence can induce inflammation, immune activation



It might not all be about SEXUAL violence

Source: Klot, 2012; Ghosh, 2015;

Immunology of violence

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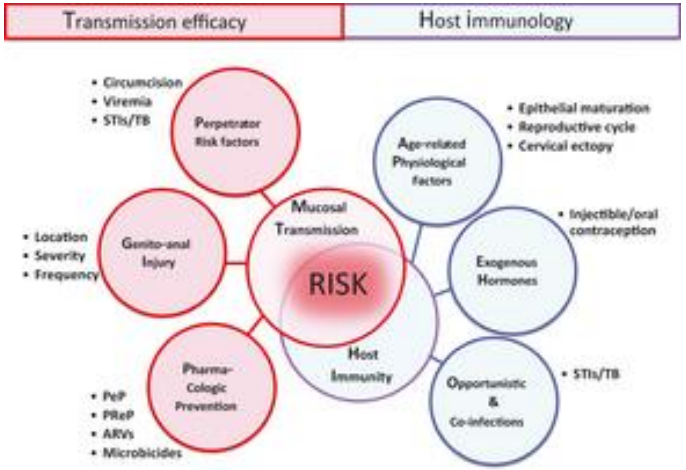

It might not all be about SEXUAL violence

- Physical abuse, emotional abuse associated with up/down regulation of host genital immunology immune responses
  - Women who experienced IPV were at increased risk of acquiring HIV with increasingly severe violence associated with increased risk of infection.
  - Higher rates of depression and lower T-cell function in women who experience chronic abuse.
  - PTSD associated with dysregulation of cortisol pathways, fight or flight responses.

- *Potentially important in the maturing genital tract of young women*

Source: Klot, 2012; Ghosh, 2015;

Lack of anti-herpes immune response in women physically and emotionally abused

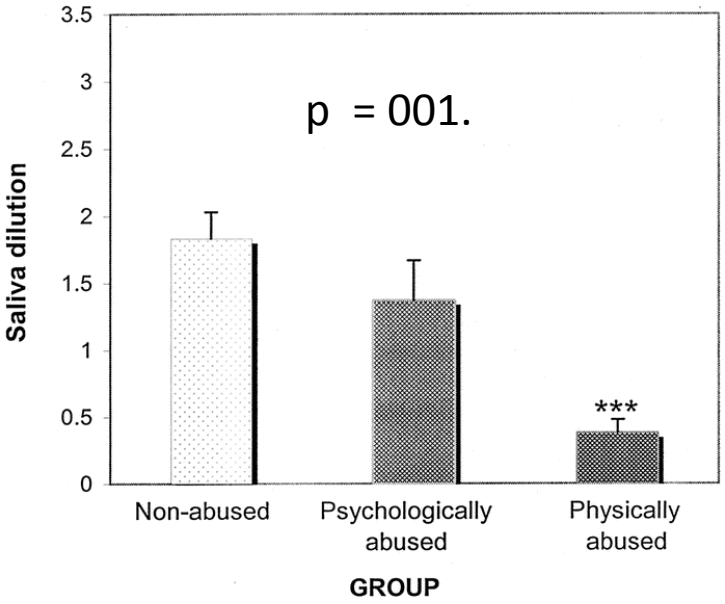

Figure 1. Mean (SE) dilution of saliva capable of neutralizing herpes simplex virus type 1 in women. *;

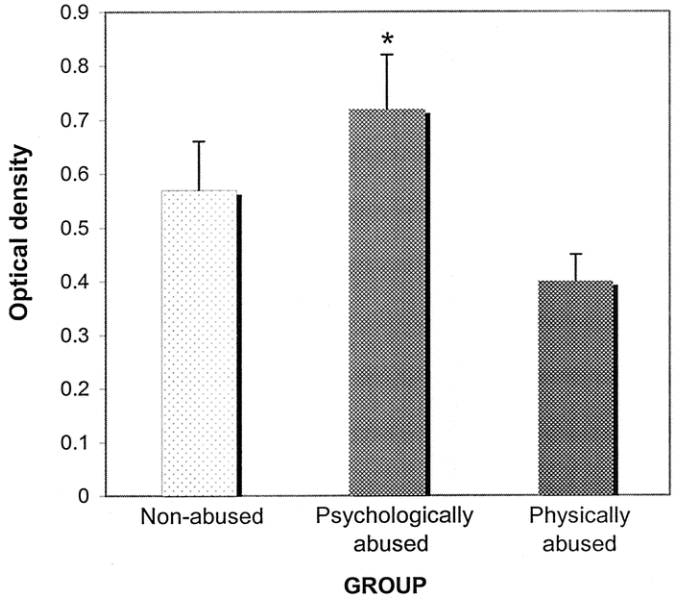

Figure 2. Levels of HSV-1 sIgA

Source: Garcia-Linares, 2004

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Violence and fear of violence influence engagement in HIV treatment and care

Studies with Pregnant Women

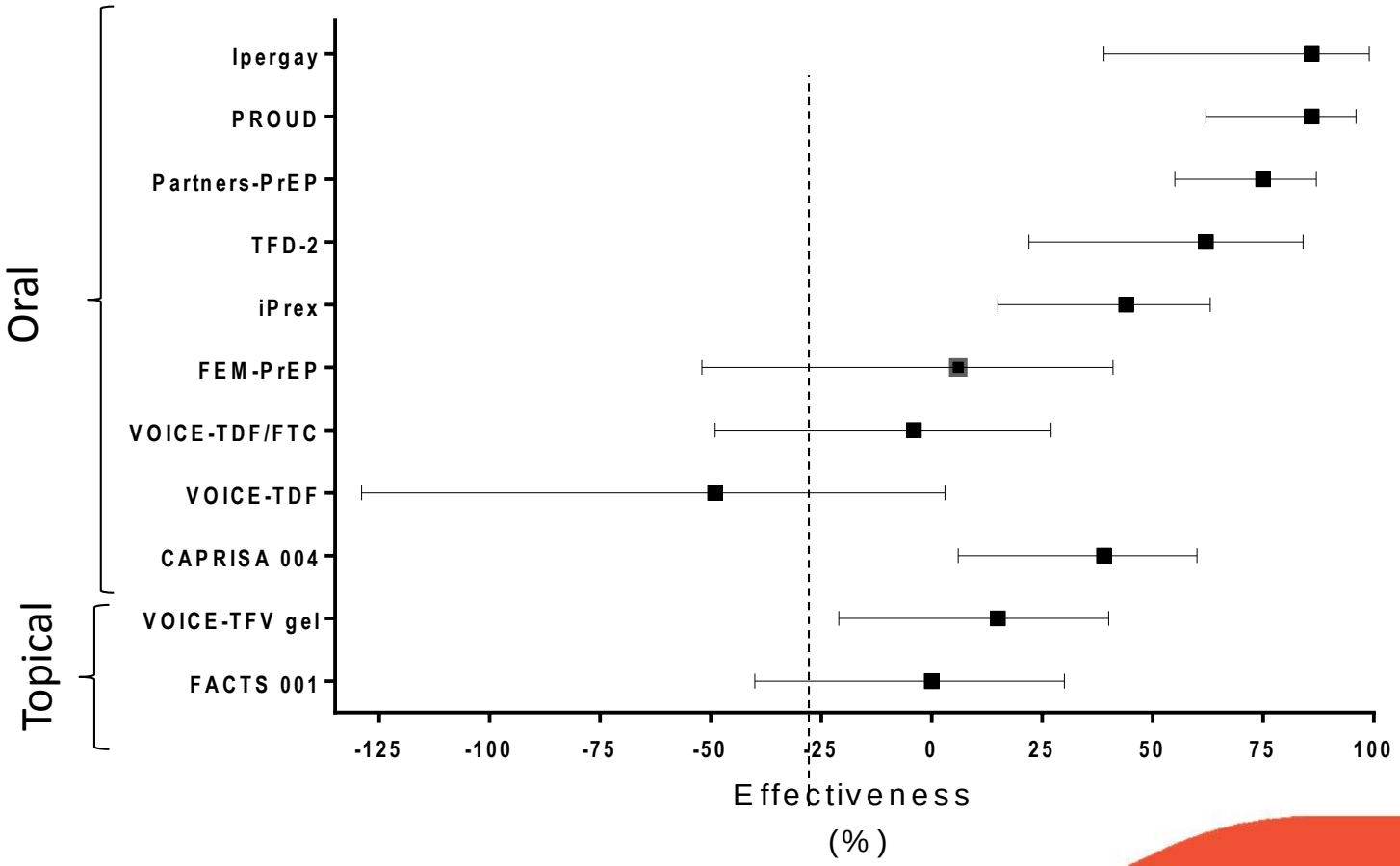
- Anticipated IPV is associated with refusing **HIV testing**
  - Stigma, fear of disclosure to partner major barrier to uptake of PMTCT ART
- Male involvement predicts better **adherence to NVP**
- Physical IPV lowers uptake of **antenatal care**
- History of violence decreases women's **breastfeeding**

Studies with HIV-positive Women

- Anticipated violence lengthens time to **linkage to care**
- History of physical or sexual IPV decreases **ART uptake**
- Current IPV is linked to poor **ART adherence**
- GBV associated with poor **HIV outcomes**
  - Lower CD4+ counts, increased virologic failure and OI

Source: Gourlay, 2013; Hatcher, 2013

Potential impact violence or fear of violence on PrEP uptake and adherence



Molina, CROI 2015; McCormack, CROI 2015; Baeten, 2012; Thigpen, 2012; Grant, 2010; Karim, 2010; van Damme,, 20122; Marrazzo, 2014; Rees, 2015

Oral PrEP: Male partners influence uptake and use in young African women

- VOICE:
  - 50 % (TDF-FTC) – 58% (TDF) of participants in nested cohort had no drug detected at any visit

- VOICE-C – qualitative data
  - Male partners' understanding/support of the trial and study products had a significant influence on women's use of PrEP

- Concerns about potential stigma led to concealed use of study products and lower adherence;
- ART use perceived to be associated with HIV illness by male partners; unintentional disclosure occasionally led to relationship conflicts

Source: Marrazzo, 2015; Montgomery, 2014; van der Straten, 2014a; van der Straten, 2014b

Microbicides: Fear of violence influenced women's decisions to disclose trial participation and gel use

MDP 301

- Male partners were perceived as authoritarian, controlling and suspicious and were often perpetrators of IPV.
- Fear of violence influenced women's decisions to disclose trial participation and gel use, but attempted concealment of gel use further led to relationship strain

CAPRISA 004

- In CAPRISA 004, a third of women expressed fear of disclosing gel use and trial participation
- Non-disclosure / attempted concealment of gel use was associated with greater difficulty with gel use
- In contrast, disclosure of gel use to partners was associated with modest (14%) increases in adherence

Sources: Stadler, 2014; Succop, 2014; Mngadi,2014

Trials ≠ "real life"

- What PrEP-takers say PrEP offers
  - Decreased anxiety
  - Increased communication, disclosure, trust
  - Increased self-efficacy
  - Increased sexual pleasure & intimacy
- Sex workers
  - Fear of violence may motivate PrEP use

- Need to understand how young women will incorporate oral PrEP into their every day lives

Source : Gilmore , 2014; Ware, 2012; Ware 2014; Eakle, personal communication

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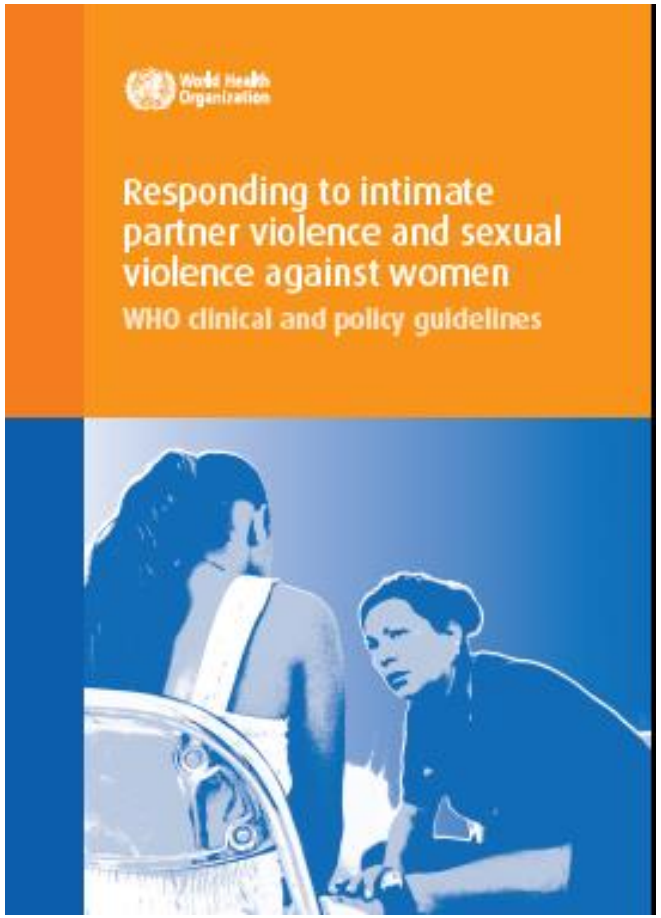
Rationale for a health sector response

- Abused women more likely to seek health services
- Most women attend health services at some point, especially sexual and reproductive health
- If health workers know about a history of violence they can give better services for women
  - Identify women in danger before violence escalates
  - Provide appropriate clinical care
  - Reduce negative health outcomes of VAW
  - Assist survivors to access help / services/ protections
  - Improve sexual, reproductive health and HIV outcomes
- Human rights obligations to the highest standard of health care

Source: Garcia-Moreno, 2014

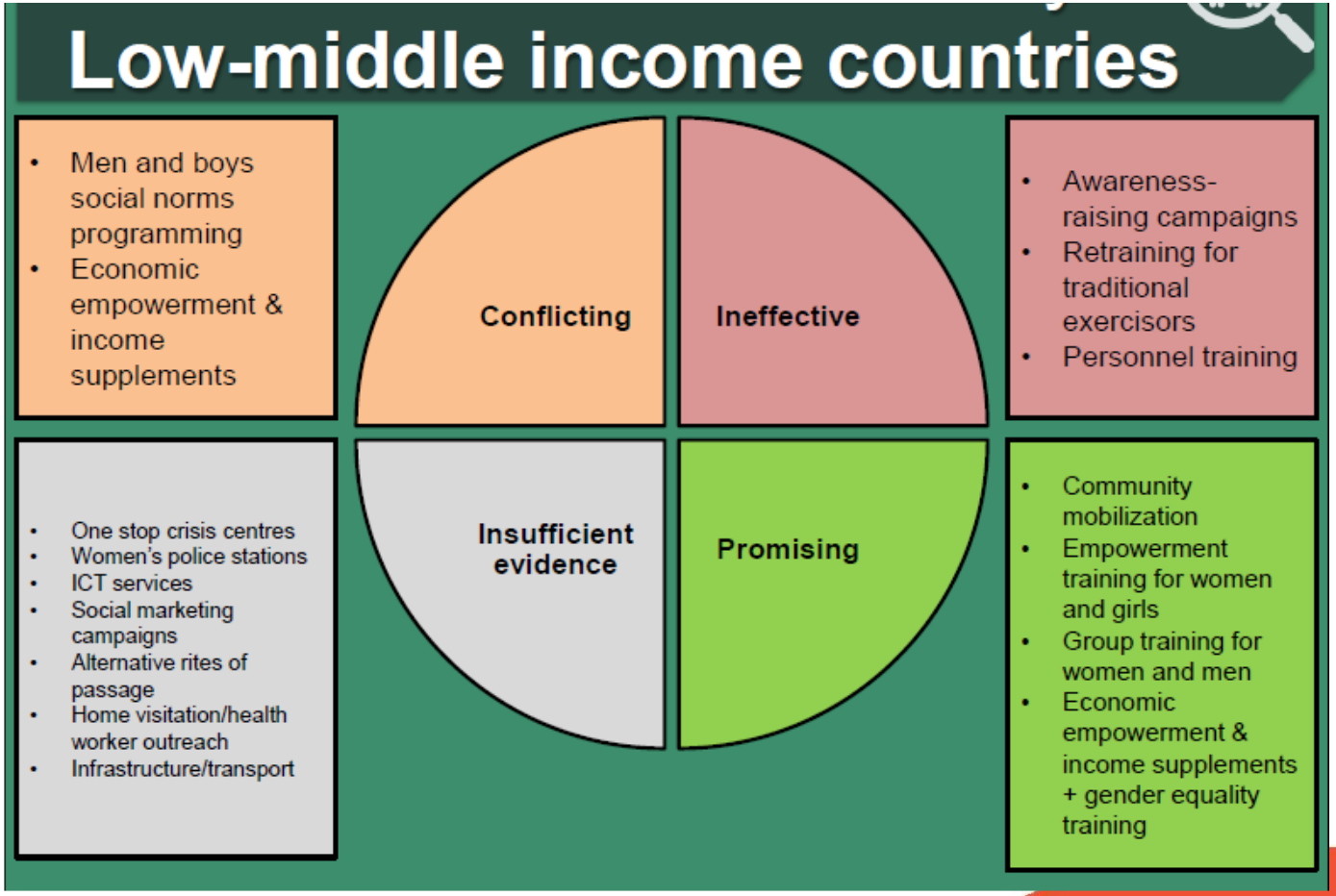
The health sector has a responsibility to respond to violence, and global guidelines already exist



- ✓ Health-care providers are trained
- ✓ Standard operating procedures are in place
- ✓ Consultation takes place in a private setting
- ✓ Confidentiality is guaranteed
- ✓ A referral system is in place to ensure that women can access related services
- ✓ Health-care settings are equipped to provide a comprehensive response, addressing both physical and mental consequences
- ✓ Health-care providers gather forensic evidence when needed

WHO (2013) Clinical and Policy Guidelines

Prevention of violence against women and girls – what does the evidence say?



Source: Ellsberg, 2014

Effectiveness of an integrated intimate partner violence and HIV prevention intervention in Rakai, Uganda: analysis of an intervention in an existing cluster randomised cohort

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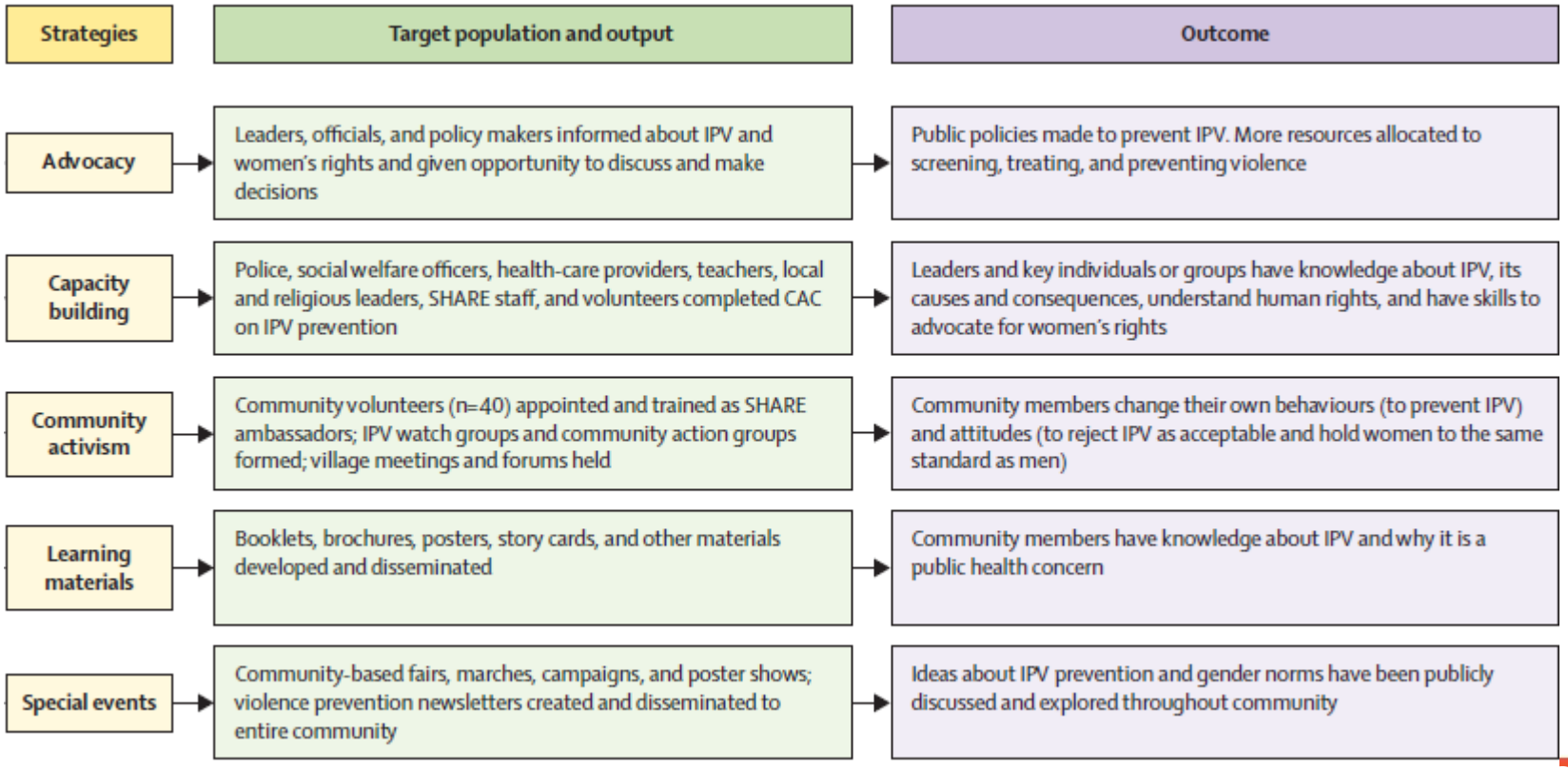

Wagman, Lancet 2014

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	Control			Intervention			Comparisons	
	Incident cases (person-years)	Participants*	Incident cases per 100 person-years	Incident cases (person-years)	Participants*	Incident cases per 100 person-years	IRR (95% CI); p value	aIRR† (95% CI); p value
Women	71 (6154)	2038	1·15	56 (5649)	1925	0·99	0·86 (0·61–1·22); p=0·396	0·72 (0·49–1·07); p=0·1020
Men	48 (4237)	1435	1·13	27 (3861)	1326	0·70	0·62 (0·39–0·99); p=0·045	0·59 (0·35–0·95); p=0·0304
Overall	119 (10 390)	3473	1·15	83 (9510)	3251	0·87	0·76 (0·58–1·01); p=0·057	0·67 (0·46–0·97); p=0·0362

IRR=incidence rate ratio. aIRR=adjusted incidence rate ratio.*Participants who contributed to the person-year calculation. †Adjusted for baseline HIV prevalence by trial group, baseline age, baseline education, baseline marital status, and circumcision status of men or primary male partner of female respondents.

- Exposure to SHARE was also associated with significant:
  - Reductions in past year sexual IPV, physical IPV and forced sex as reported by women
  - Increases in disclosure of HIV results

Wagman, Lancet 2014

Conclusions

- HIV and violence against women and girls are widespread, particularly in high HIV prevalence settings
- Young women are exposed to multiple, overlapping forms of violence which increase their risk for HIV
  - Not just sexual violence
- We need a health sector response to violence which is evidence-based if we are to achieve HIV targets
- While the evidence base is small, promising approaches suggest that it is possible to achieve reductions in violence and HIV within programmatic timeframes

"There is no policy for progress more effective than the empowerment of women and girls. Study after study has taught us that no other policy is as likely to raise economic productivity, or to reduce infant and maternal mortality. No other policy is as sure to improve nutrition and promote health -- including the prevention of HIV/AIDS... "

Kofi Annan, 2005

Acknowledgements

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  - D Baron, A Hatcher, S Mullick, J Stadler, H Rees
- STRIVE
  - C Watts, L Heise, A Stangl, S Lees, S Kapiga
- Greentree II participants
  - C Wira, M Ghosh, J Auerbach, J Wagman

EMPOWER

Improved combination prevention (including PrEP) for adolescent girls and young women in Tanzania and South Africa

- To evaluate the feasibility, acceptability and additional benefits of combining GBV and stigma reduction activities within an oral PrEP programme for young women aged 16-24 years

Funded by DFID for 2.5 years through Evidence for HIV Prevention in Southern Africa