



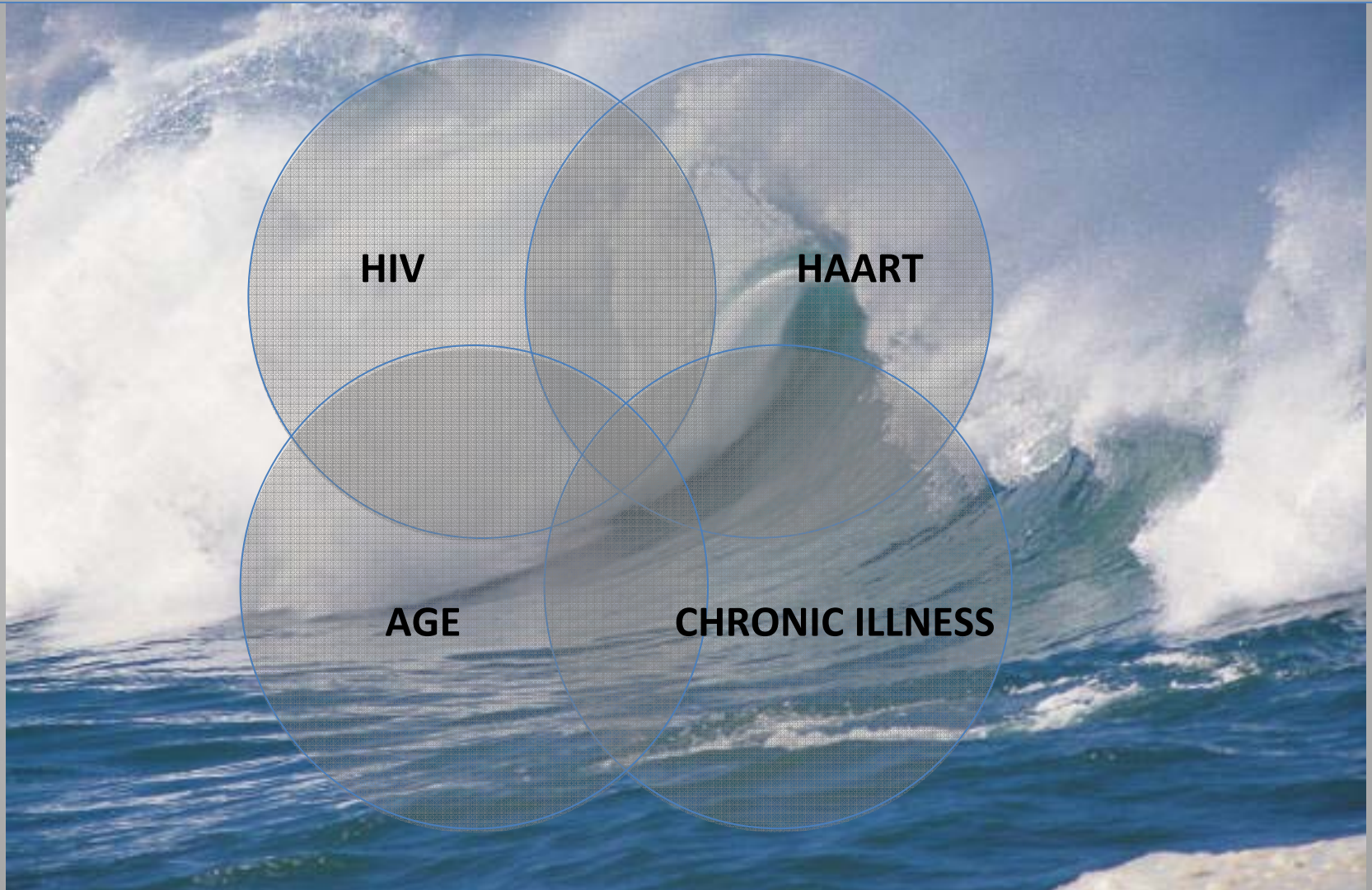
Poz Brain: Mental Health Issues in HIV and Aging

Evan Collins, MD, FRCP(C)
Department of Psychiatry,
University of Toronto

Potential Mental Health Issues in HIV and Aging

- Depression
- Substance use
- Neurocognitive Issues
- Social Support/Social Isolation
- Adjustment to HIV diagnosis >50
- Severe and persistent mental illness and HIV
- Adherence
- Grieving
- Sexuality
- Spirituality
- Relationships

A Tsunami of Converging Factors?



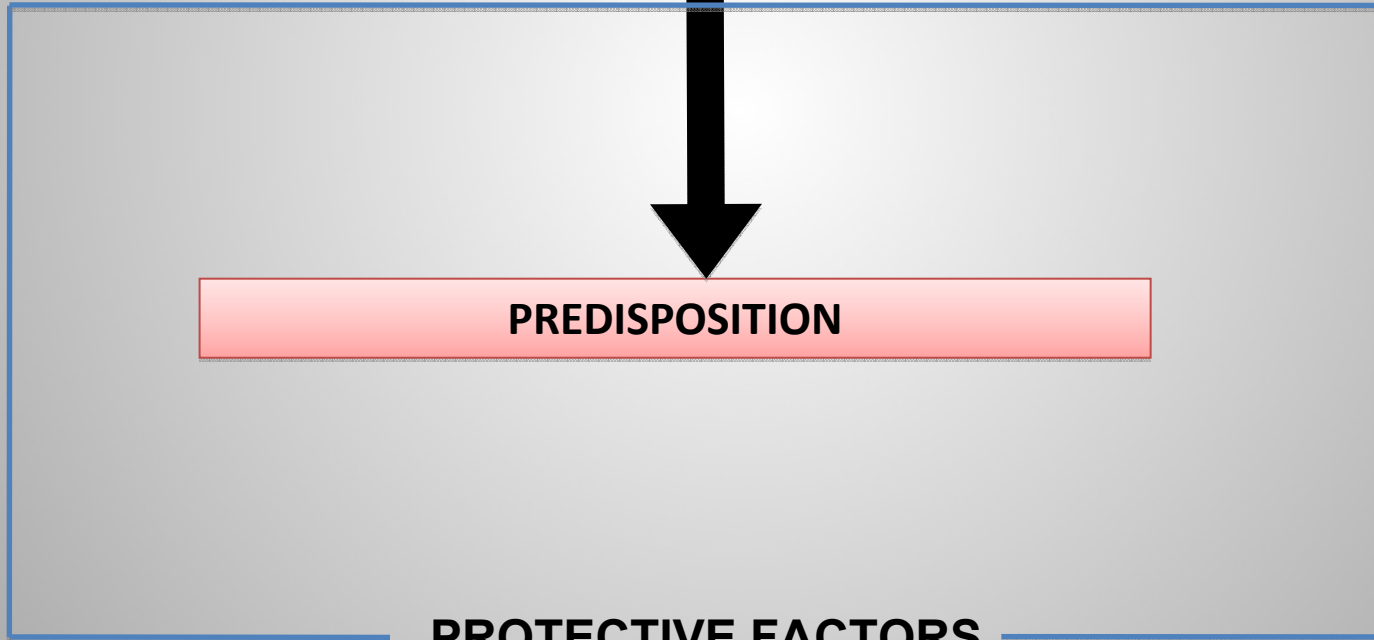
Stress-Vulnerability Model of Depression

**PRECIPITATING
FACTORS**

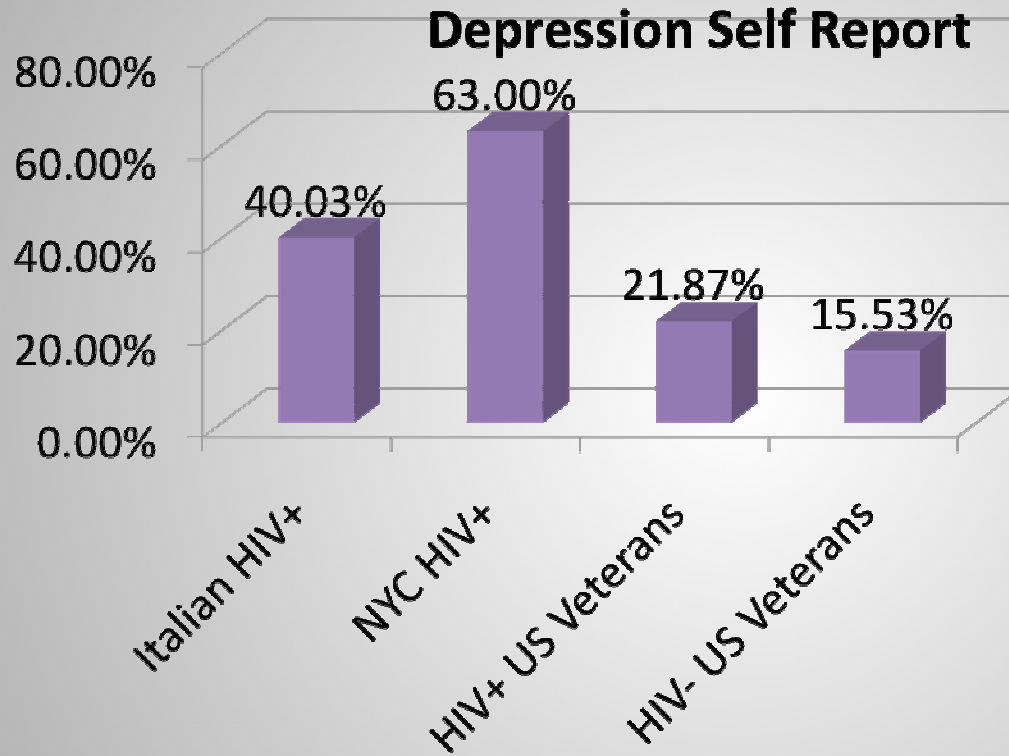


PREDISPOSITION

PROTECTIVE FACTORS



Depression in Cohorts > 50 yrs



- 1) *Liuzzi, et al, JIAS 2008 (n=169)*
- 2) *Karpiak et al, ROAH 2007 (n=914)*
- 3) *Justice et al, AIDS 2004 (n=1047 HIV+ & 756 HIV-)*

Depression

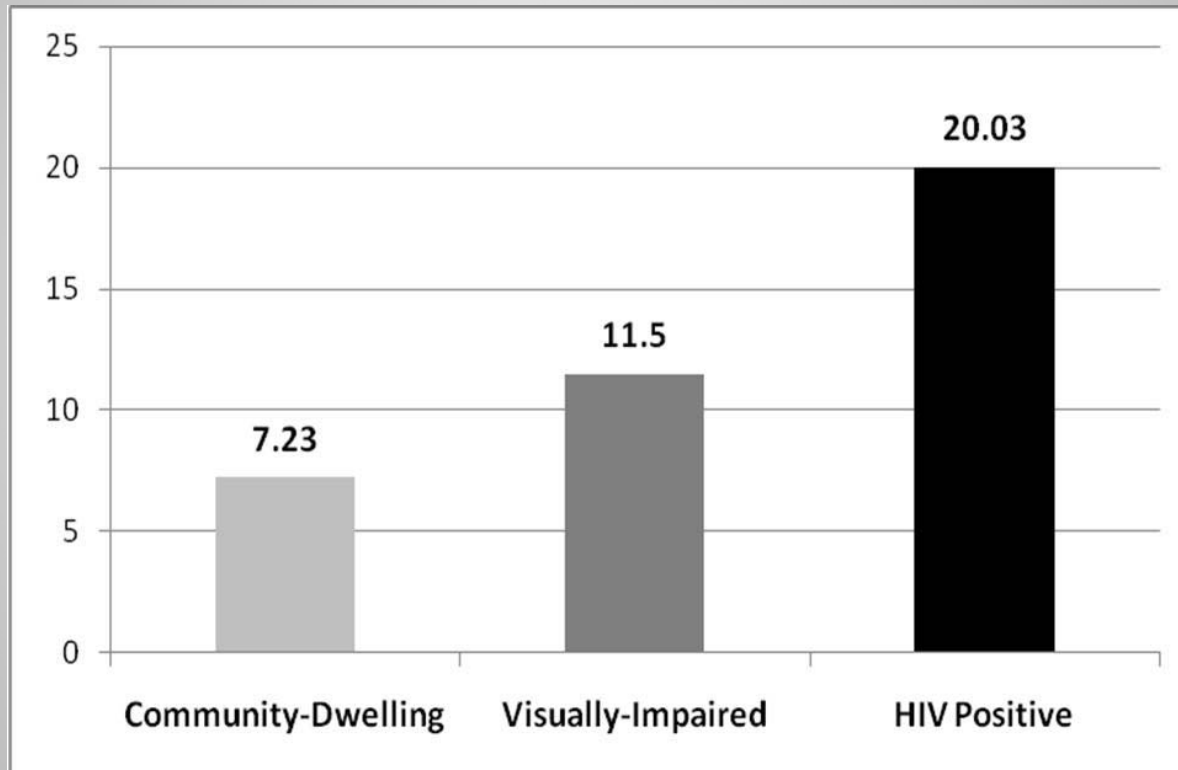
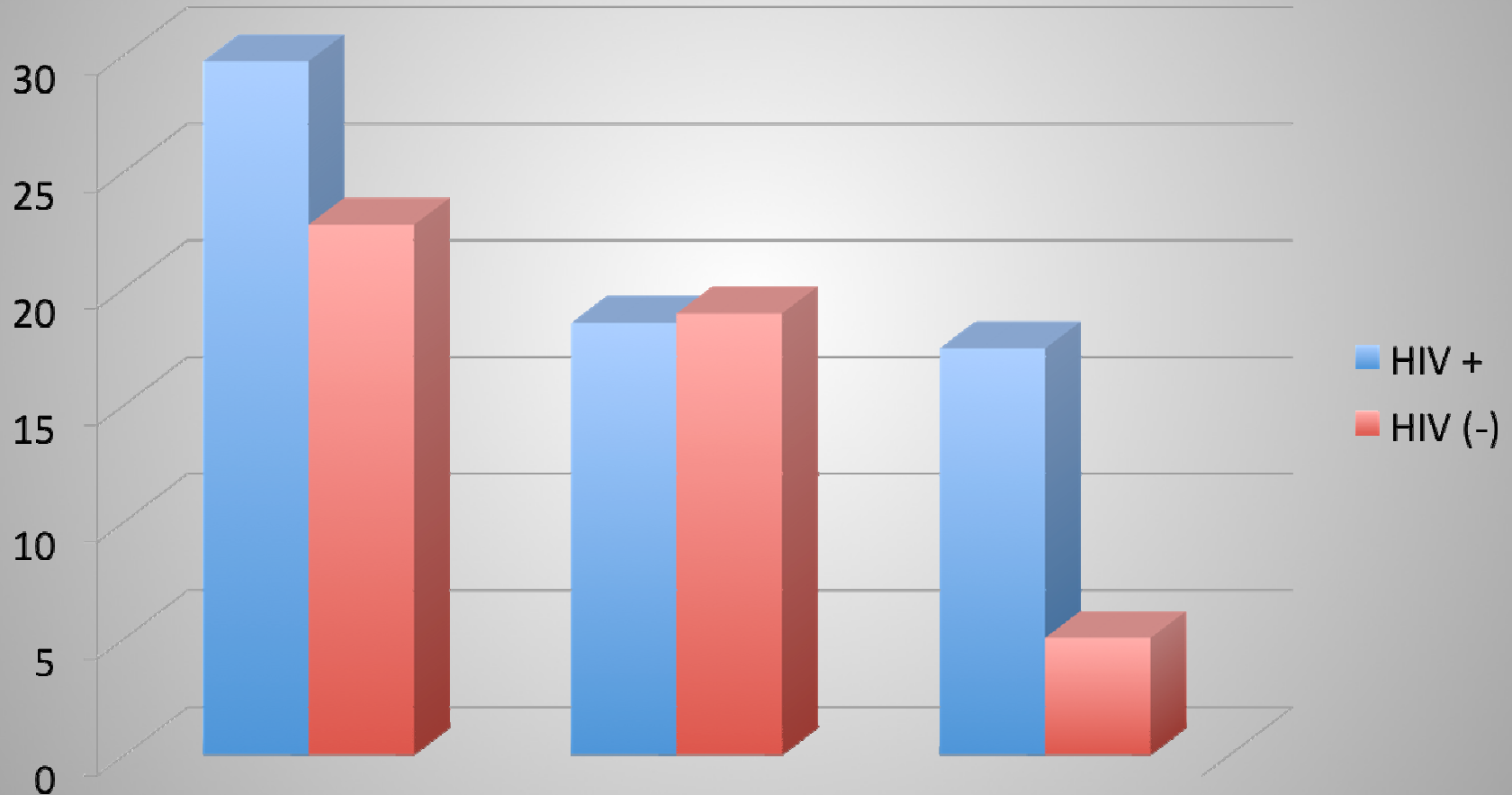


Figure 2 Comparison of Average CES-D Scores among Middle-age and Older Adults who are Community-dwelling, Visually-Impaired, or Living with HIV in ROAH. Data on Community-dwelling adults and visually impaired adults were obtained from Gump et al. (2005) and Horowitz et al. (2006), respectively.

Current Depression (self-report: PHQ)

n=1803



Depression in Aging and HIV

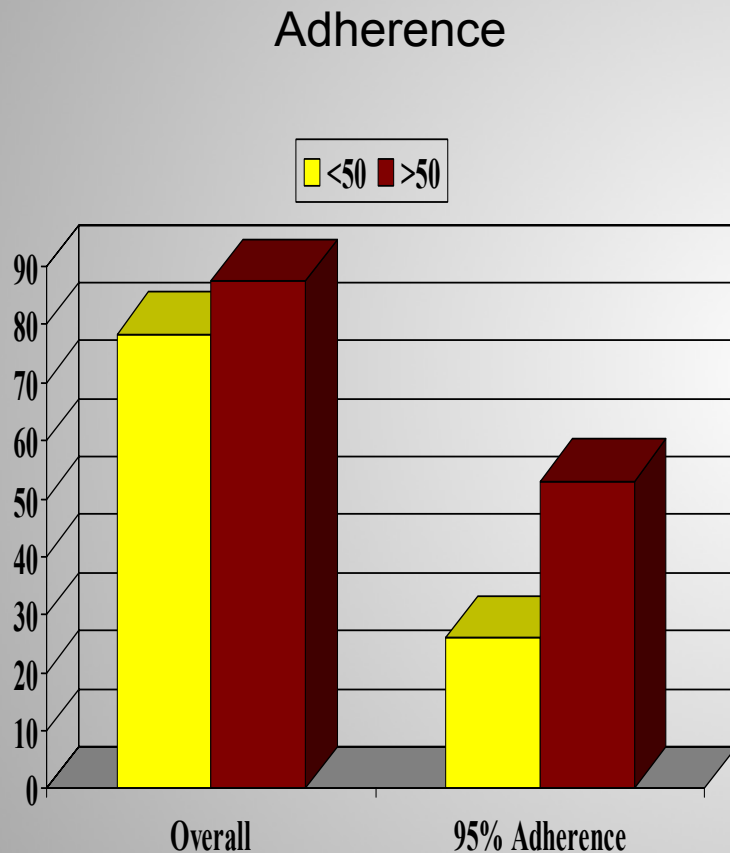
- Not always typical
- Often “normalized”
- There are many conditions mimic depression
 - Substance abuse
 - Hormonal imbalance (thyroid, testosterone)
 - Anemias and fatigue
 - Dementia
 - Liver disease
 - Efavirenz, interferon
- Reinforces social isolation
- Treatment can improve adherence and prolong life

Suicide and HIV

- Declined since introduction of cART
- Higher than in general population
- Among PLHIV, higher rates in:
 - Older PLHIV
 - Men > women
 - Advanced HIV disease
 - PLHIV with pre-existing mental illness
 - Injecting drug users

Keiser, et al Am J Psychiatr 2010

Some things may get better with age



- S. Mavandadi's HIV and Aging Study
- 109 adults, 50% women,
- Majority black or hispanic
- Adults 55+:
 - ↑ medical morbidity
 - ↓ depression
 - ↑ social support

Substance Use and Abuse

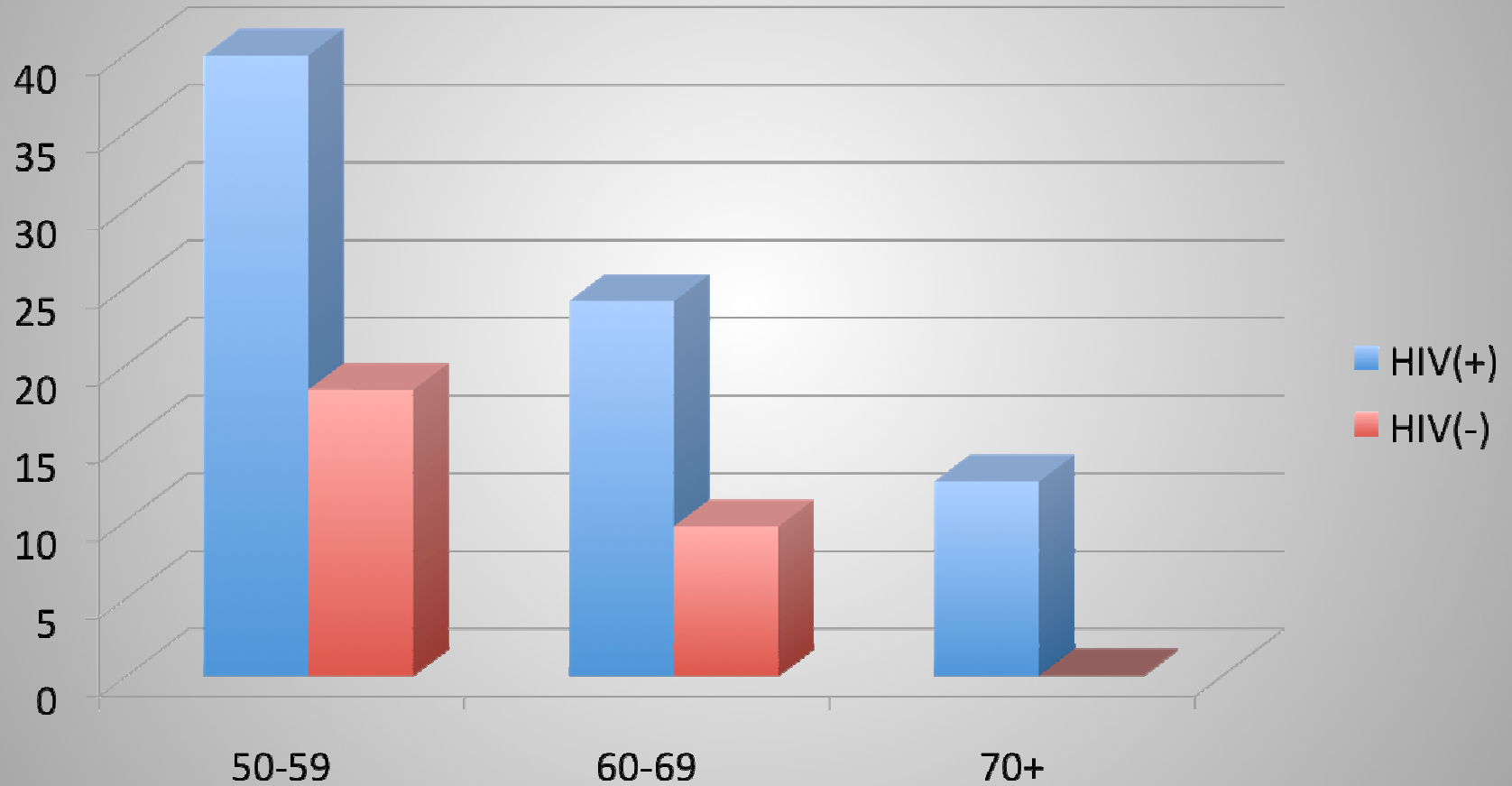
Aging

- Often hidden
- Alcohol > other substances
- ↓ tolerance & ↑ toxicity
- Prescription drug abuse
- Often associated with chronic pain or sleeplessness
- Polypharmacy

HIV

- Link between drug use and HIV infection
- Substance use can impact adherence, the immune system, physical and mental health
- Often complicated by HCV co-infection
- Harm reduction
- Marijuana used therapeutically

Drug Abuse & Dependence (self-report DAST-10) n=1803



ROAH: Substance Use

<u>Substance</u>	<u>Current %</u>	<u>History %</u>
■ Tobacco	57	84
■ Alcohol	38	81
■ Marijuana	23	71
■ Cocaine	15	63
■ Crack	16	47
■ Heroin	7	44
■ Crystal Meth	2	9

Neurocognitive Disorder

AGING

- Memory loss of senescence
- Alzheimer's & Multi-infarct Dementia
- More likely cortical
- 20% of older adults
- Significant morbidity and mortality

HIV

- HIV/AIDS Neurocognitive Disorder (HAND)
- Aging, HIV infection and cART penetration are independent factors
- Associated with DM, hypertension, atherosclerosis, lipids
- More likely subcortical
- Significant morbidity and mortality

HIV/AIDS NEUROCOGNITIVE DISORDER (HAND)

	No Preexisting Cause	Acquired Impairment in >2 cognitive abilities	Interferes with daily functioning
Asymptomatic Neurocognitive Impairment (ANI)	✓	✓	No
Mild Neurocognitive Disorder (MND)	✓	✓	Mild
HIV Associated Dementia (HAD)	✓	Marked	Marked

Symptoms of HAND

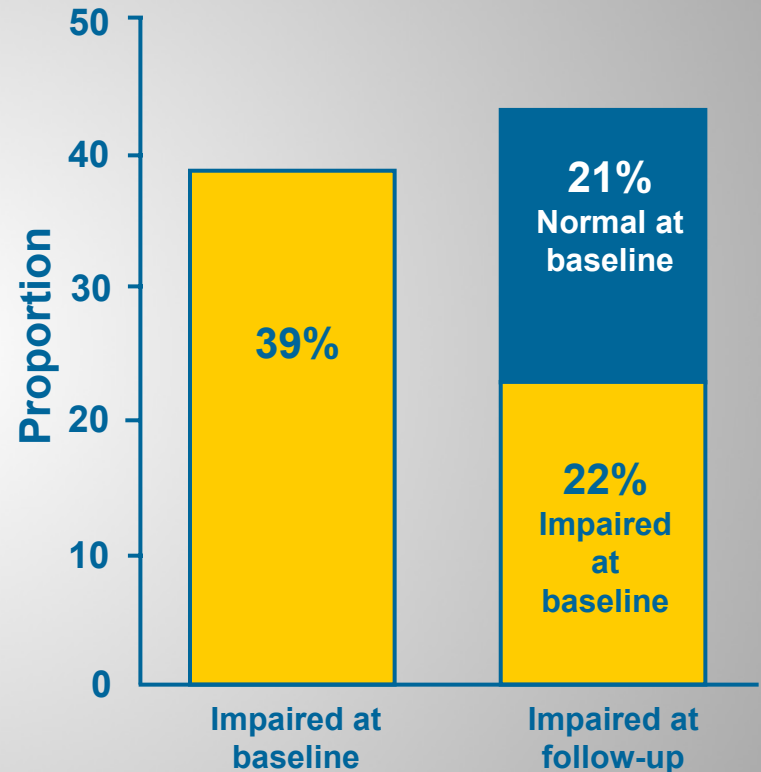
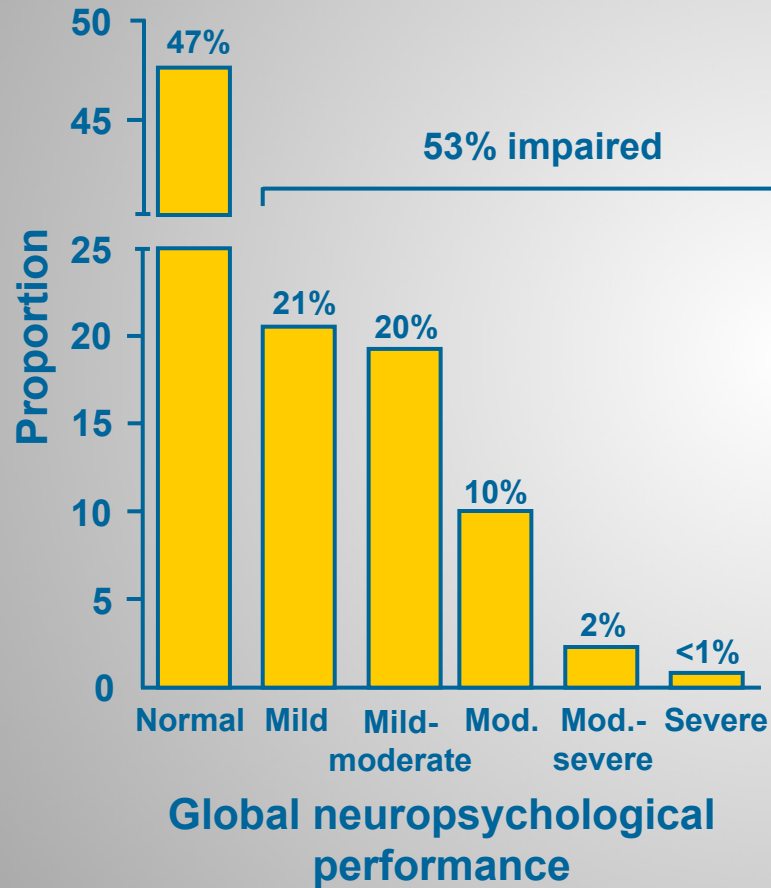
- **COGNITION**
 - Memory
 - Speech
 - Attention/Concentration
 - Judgment
 - Learning
- **DAILY FUNCTIONING**
 - Home
 - Work
 - Social
- **MOTOR**
 - Balance
 - Walking
 - Coordination
- **MOOD**
 - Depression
 - Personality Change
 - Irritable/Excitable
 - Apathy
 - Withdrawal

Real world consequences of HAND

- **Worse medication adherence**
- Impaired driving
- Difficulty with finances and meal preparation
- Difficulty with employment
- Stress on relationships
- **Shorter survival**

HAND is common

CHARTER and ACTG: 39–53% prevalence



HIV-Associated Neurocognitive Disorders (HAND)

~assessment~

- Clinician screening
- Neuropsych testing
- CSF viral load testing
- Brain imaging
- Need for a Canadian consensus on screening and testing

HIV-Associated Neurocognitive Disorders (HAND)

~potential treatments~

- Changing ARV regimens
- Lithium Carbonate
- Minocycline
- Memantine
- Cognitive Rehabilitation
- “Brain Fitness”



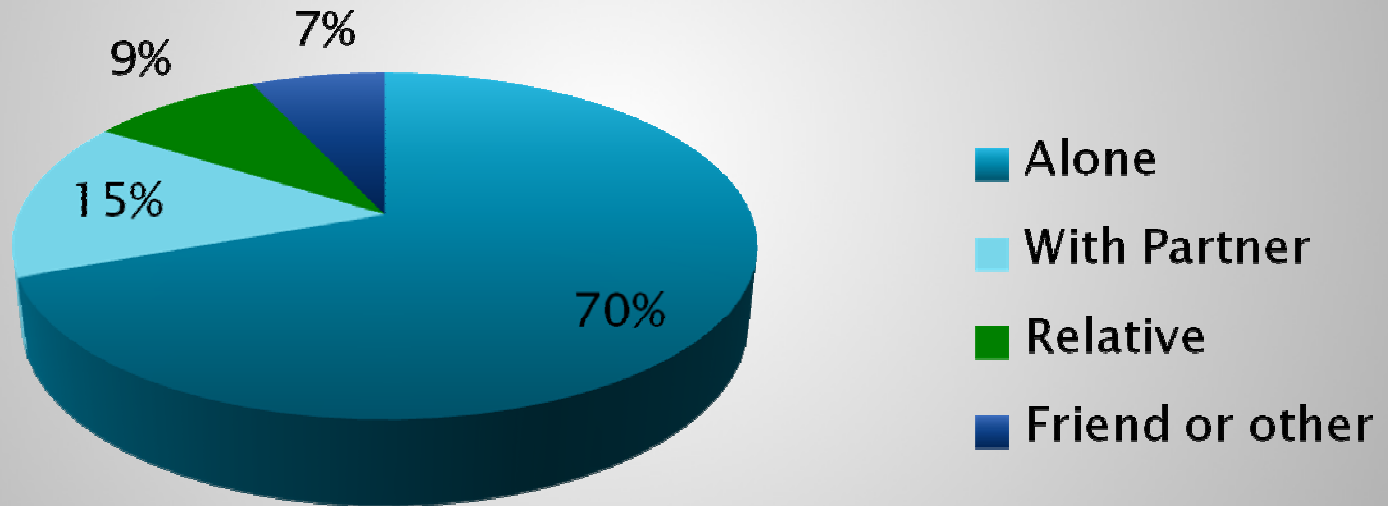
**TU T'INQUIÈTES DES
EFFETS DU VIH SUR TON
CORPS, MAIS N'OUBLIE
PAS TON CERVEAU.**

Le contenu est exclusivement utilisé à des fins d'illustration; toute personne représentée dans le contenu est un modèle.

Communique avec un spécialiste du VIH pour savoir comment
les médicaments contre le VIH peuvent affecter ton cerveau.

ROAH: Living Situation

Living Situation of Older HIV+ Adults in NYC



In contrast, 39.4% of elderly adults in NYC live alone

Social Isolation

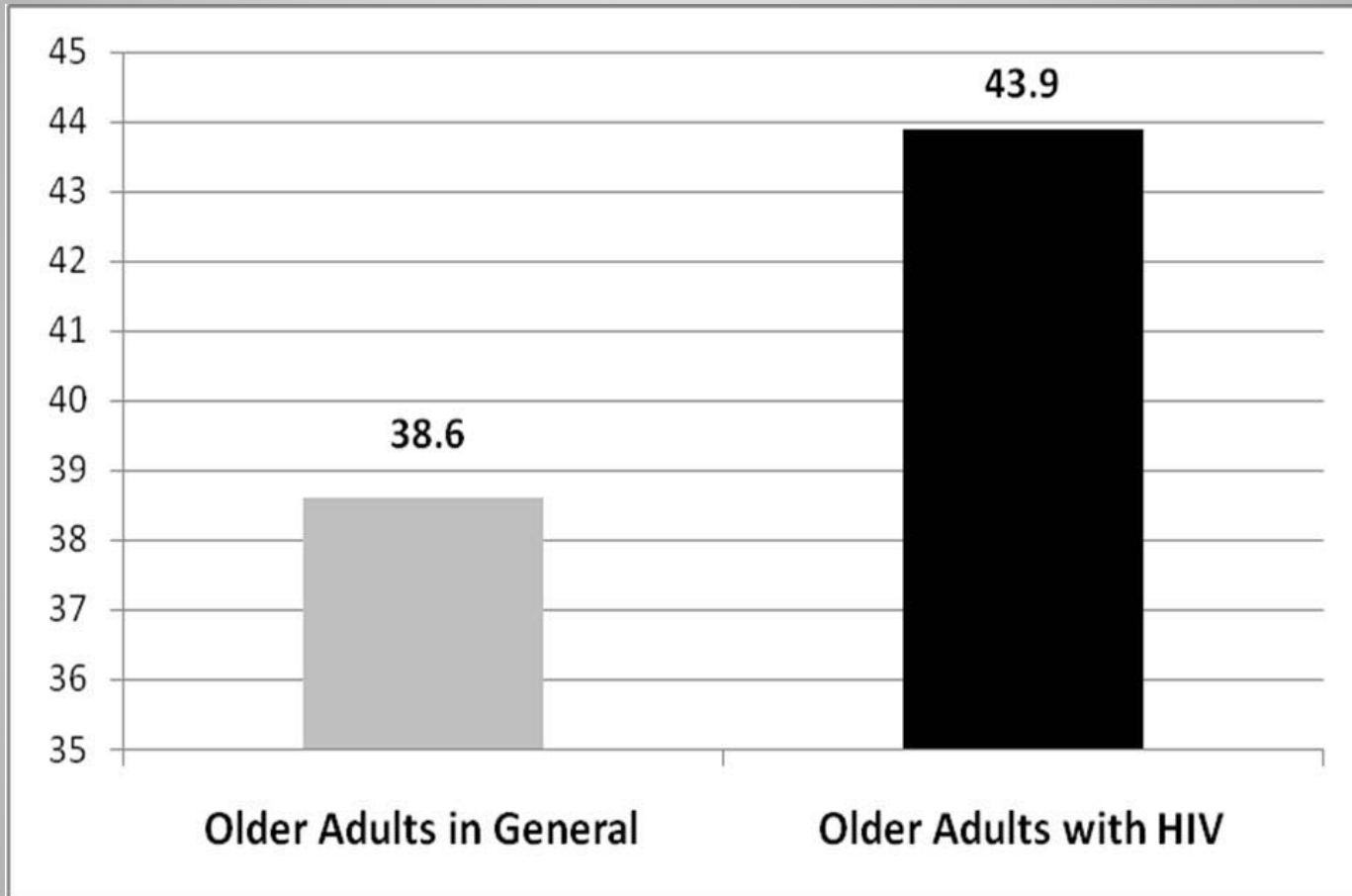


Figure 1 Comparison of UCLA Loneliness Scale Scores between Older Adults with HIV and Community Dwelling Elderly as reported in Adams et al. (2004).

How Do We Respond?

- We need to work together create a system of care to adequately respond that builds on:
 - The AIDS Movement's great success in advocating for treatment, care and support
 - Gerontology and HIV sectors emphasis on bio-psycho-social and community approaches
 - Successful models of treatment, care and support