



Life expectancy and health expectancy among victims of violence in Denmark

REVES, Havana, May 2010

Henrik Brønnum-Hansen
Marie Kruse
Jan Sørensen
Karin Helweg-Larsen



National Institute of
Public Health
University of Southern Denmark

Background

- **Mortality directly caused by violence** is generally accessible from the cause of death register
- The **impact of violence** caused by interpersonal conflicts **on life expectancy and health expectancy** has not been explored

Mainly because

- **Lack** in most countries **of systematic data collection** of hospital contacts due to violence, including emergency department contacts
- **No registrations** about the victims **in police statistics** on interpersonal violence

Purpose

To quantify how much the lifetime of victims of violence is shorter and less healthy in comparison with non-victims

Data sources – mortality

- Individuals exposed to violence during the period 2002-2007 were identified from the **National Patient Register** by their reason for contact or via the **Police Victim Statistics**
- Through linkage to the **Danish Civil Registration System** date of death among deceased was determined and person years at risk was calculated

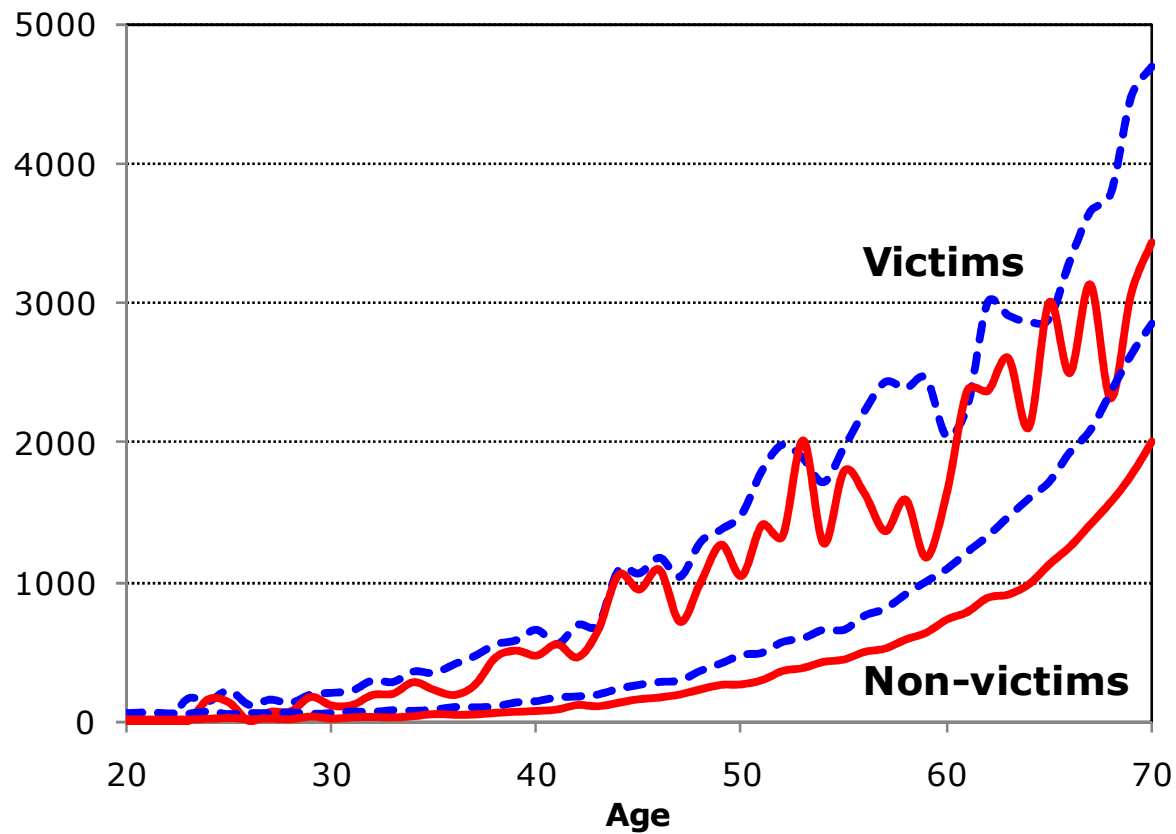
Data for estimating death rates and constructing life tables

	Person years	Deaths
Non-victims	Almost 25 mill.	328,163
Victims	592,317	5,069

Individuals who were killed were only included as victims if they had experienced an incident of violence before the fatal incident, i.e. they were victims before death

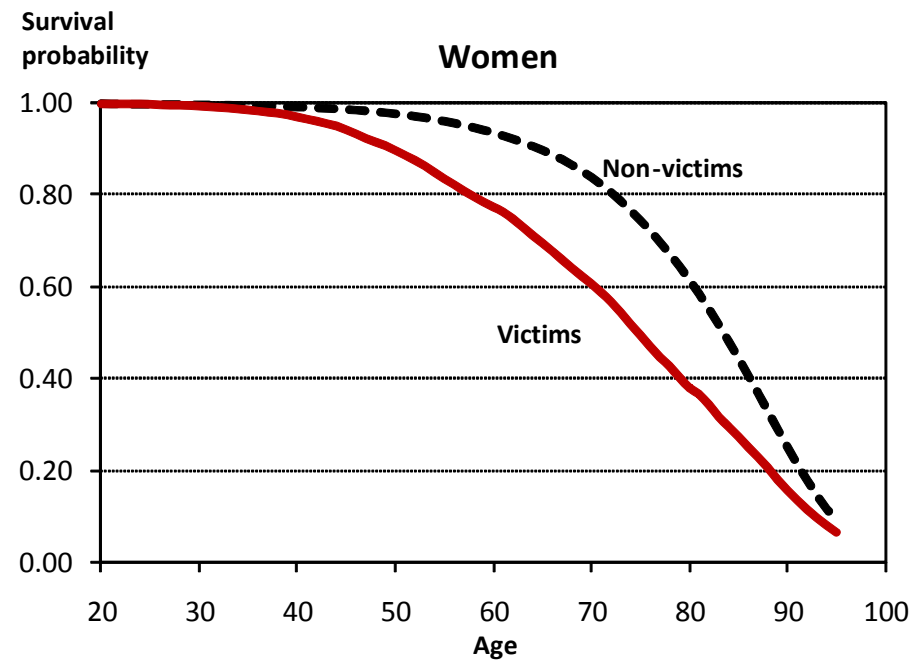
Death rates for victims and non-victims for the period 2002-2007 (identified through National Patient Register and Police Victim Statistics)

Deaths per
100,000
person years



Gender specific life tables were constructed for individuals exposed to violence and individuals not exposed to violence

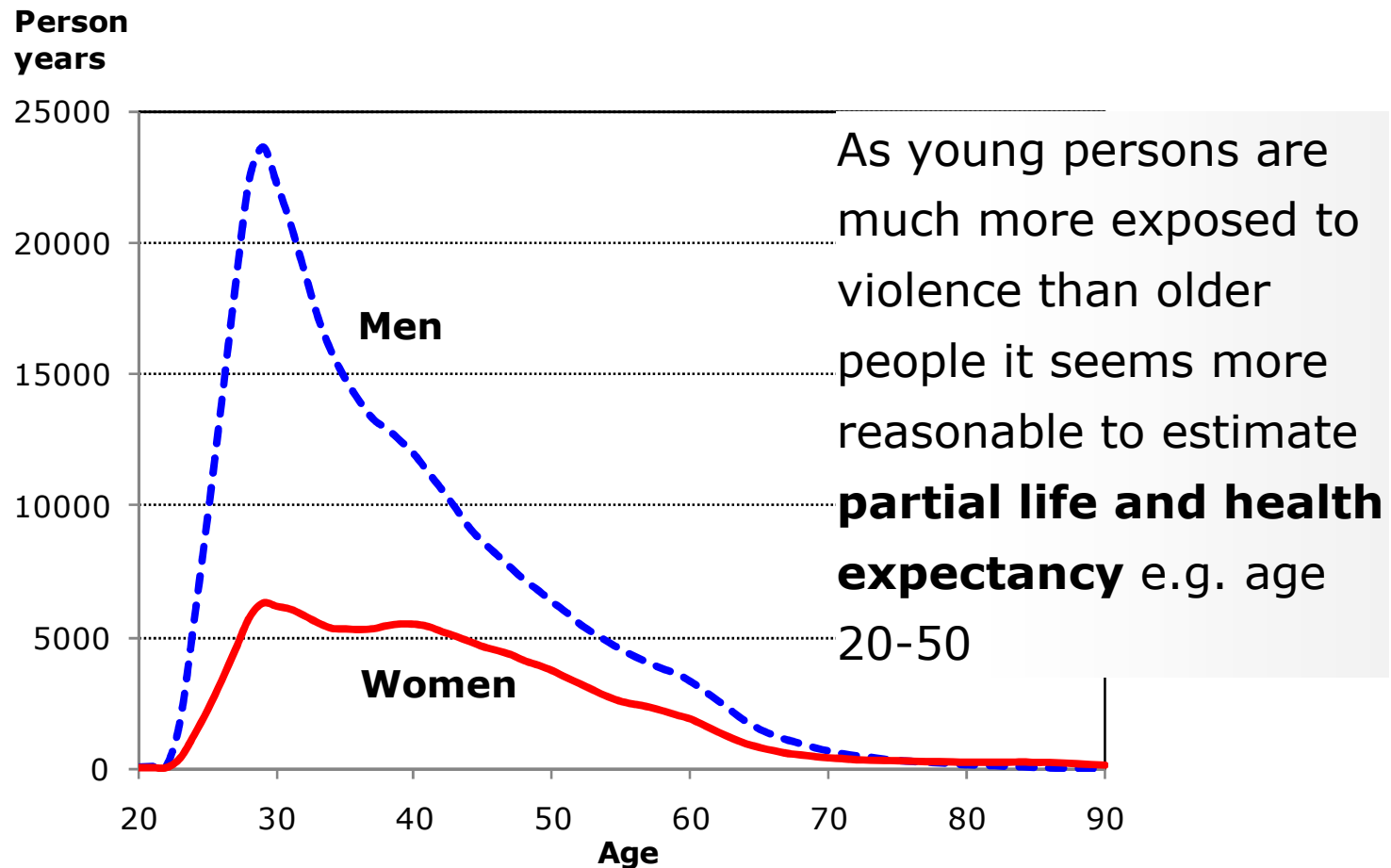
Survival curves from age 20. Victims and non-victims



Life expectancy at age 20

	Men	Women
Non-victims	57.2 years	61.3 years
Victims	49.2 years	53.1 years
Difference	8.0 years	8.2 years

Sum of person years of victims exposed to violence during the period 2002-2007 (identified through National Patient Register and Police Victim Statistics)



Data sources – health status prevalence

- Self-reported data from the Danish **Health Interview Surveys** in 2000 and 2005
- **Self-rated health:** ‘How do you rate your present state of health in general?’
very good or good *versus* fair, poor, and very poor
- **Long-standing illness:** ‘Do you suffer from any long-standing illness, long-standing after-effect of injury, any handicaps, or other long-standing condition?’
...
considered to be limiting if the disease implied restrictions to daily life or at work

Data sources – exposure to violence

- **Self-administered questionnaire** data from the Danish Health (Interview) Surveys in 2000 and 2005
- *Within the past 12 months been subjected to violence:*
 - Pushed, shaken, scratched
 - Kicked, hit with a fist or object
 - Thrown into furniture, walls, down stairs or the like
 - Attempted strangulation, assaulted with a knife or firearms

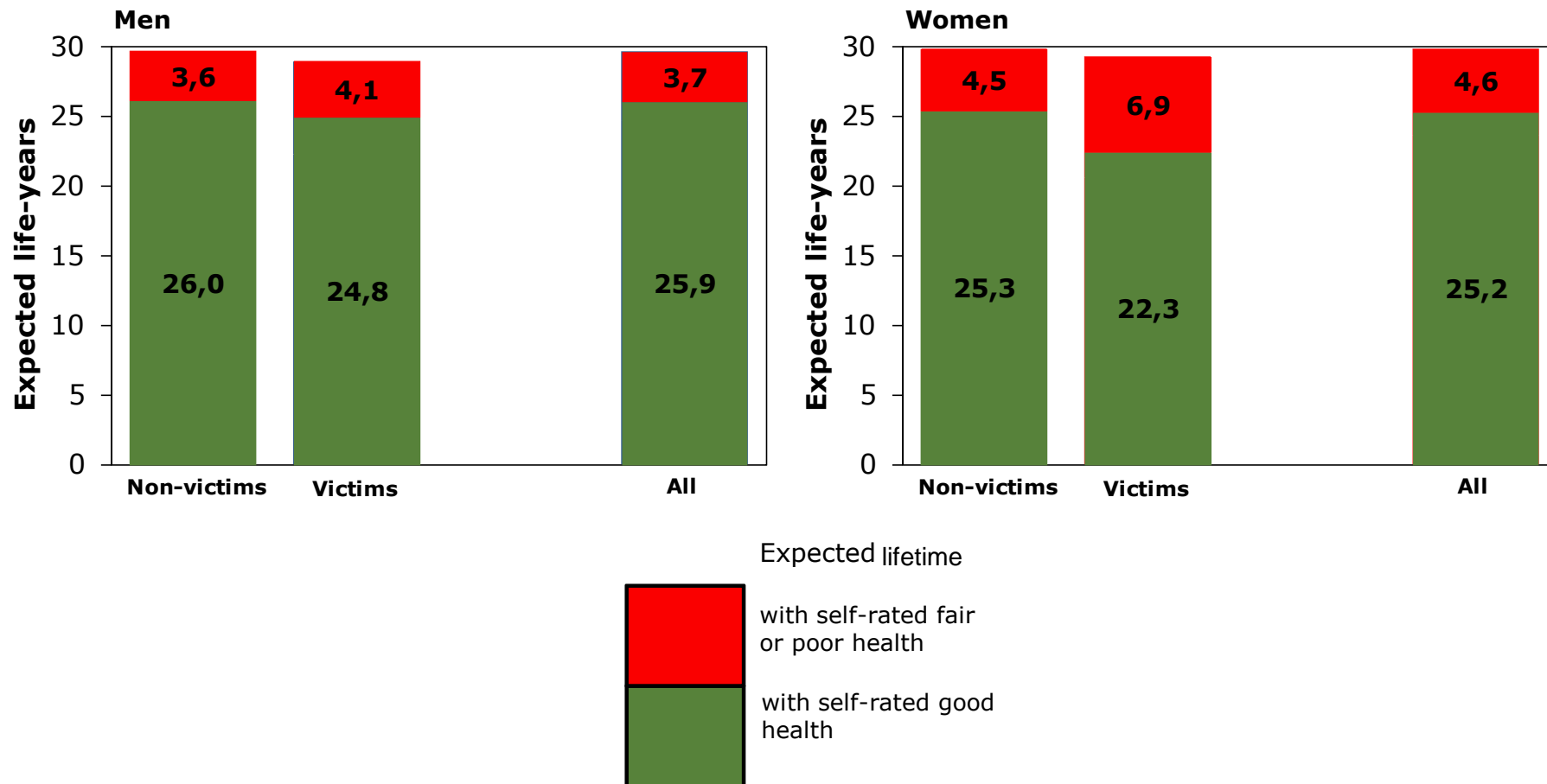
Results

Partial life expectancy

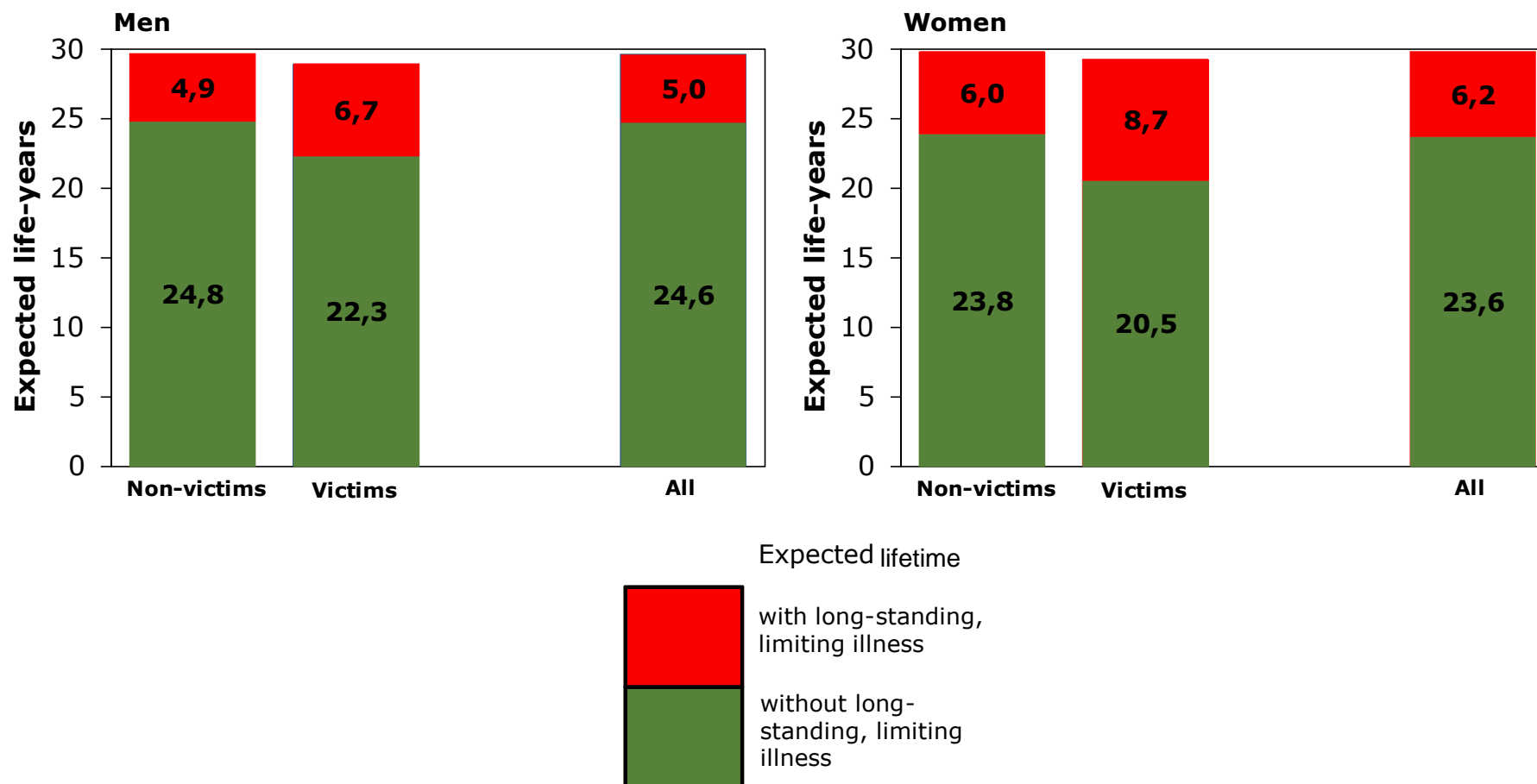
(expected lifetime between age 20 and 50)

	Men	Women
Non-victims	29.6 years	29.8 years
Victims	28.9 years	29.2 years
Difference	0.7 years	0.6 years

Partial life expectancy with self-rated good health and with self-rated fair or poor health between age 20 and 50



Partial life expectancy without and with long-standing, limiting illness between age 20 and 50



Discussion - 1

The **definition of victims** based on register data (for life table construction) differs from the definition based on health surveys (for establishing health status prevalence)

Differential **non-response** in the health surveys may cause biased results

We **cannot conclude** that violence in itself causes poor health

Discussion - 2

Living conditions are in general **less favourable** among individuals exposed to violence

Victims more frequently suffer from **psychiatric diseases** than non-victims

Prevalence of **smoking** is higher among victims than non-victims. Victims have a higher intake of **alcohol**, are more exposed to **stressors** and have more often **mental health problems** than non-victims

Conclusion

Victims of violence are **seriously disadvantaged** with reduced life expectancy and loss of healthy lifetime

Exposure to **violence is one of several risk factors** that cause poor health conditions for these individuals



Thank you!



National Institute of
Public Health
University of Southern Denmark