#### BHIVA AUTUMN CONFERENCE 2012

**Including CHIVA Parallel Sessions** 



## Professor Brian Gazzard

#### Chelsea and Westminster Hospital, London

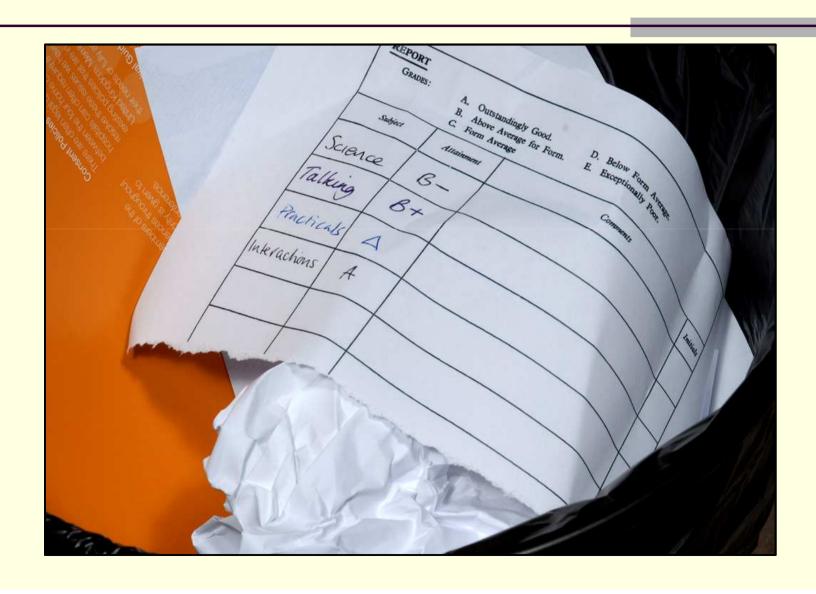
COMPETING INTEREST OF FINANCIAL VALUE > £1,000:	
Speaker Name	Statement
Brian Gazzard	None
Date	22 September 2012







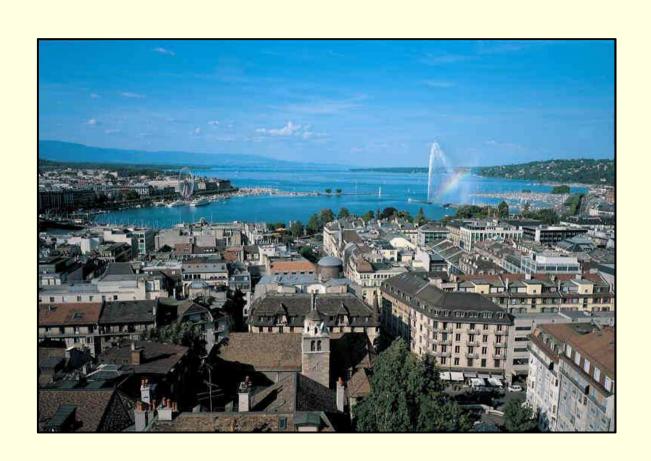
# School report



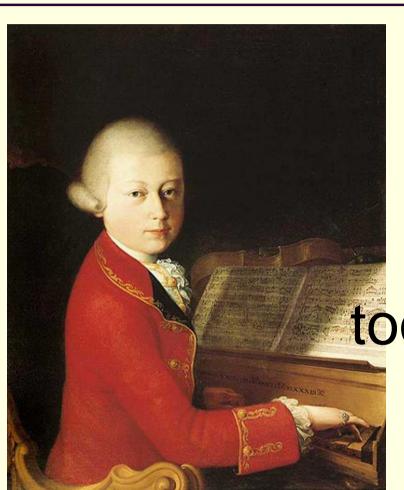


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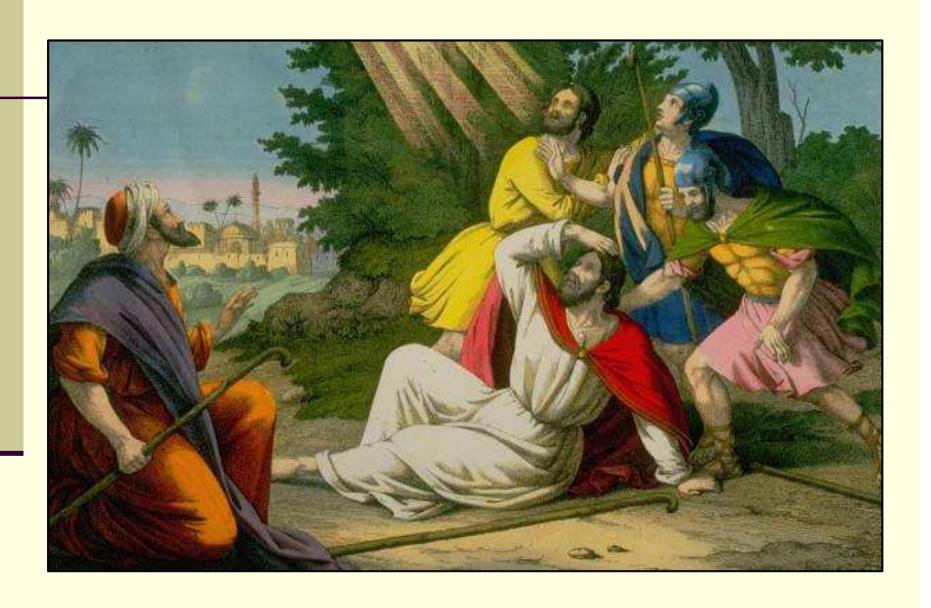
## Geneva



#### Mozart



too many words...



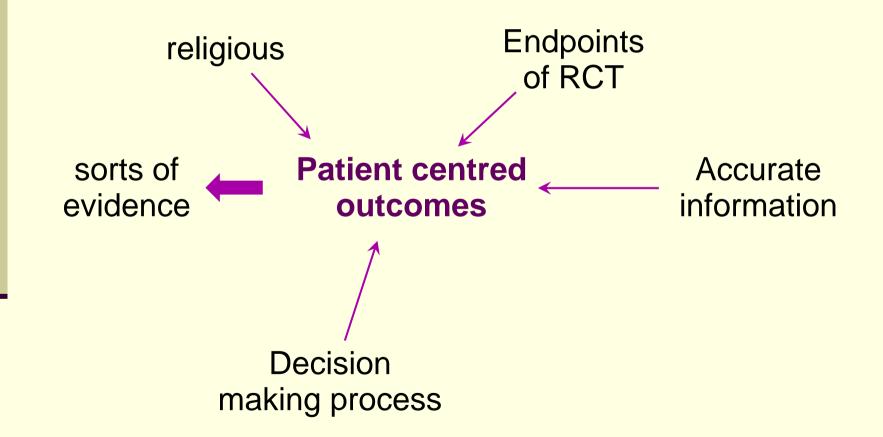
#### THE CONVERSION

**Affordable Health Care Act** 

**PCORI** 

**Grant money (lots of it!!)** 

#### **PCORI**



### Why HIV?

**Ageing population** 

Major disparities in outcome

**Complexity of care** 

**Changes in healthcare systems** 

Marginalised and disadvantaged population

## R.C.T.

No bias

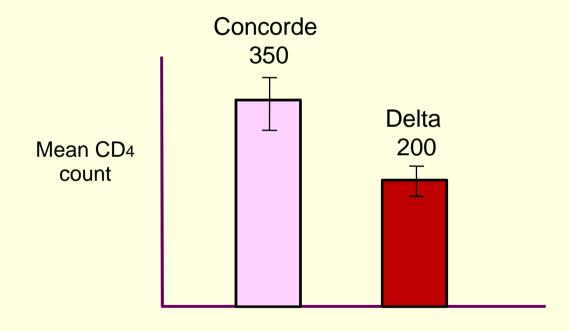
no deaths

Entry criteria no elderly

good adherence

**End points** 

# Recruitment of patients



# ITT analysis

**Less toxic** 

**More efficacious** 

#### Studies in the USA

**40% IVDU** 

60% indigent

Only 60% remain undetectable

In N.C. Accord 40% deaths not HIV related

#### **ECHO** and **THRIVE**

**Less toxic** 

Not more efficacious

### ECHO ENTRY CRITERIA

34 NNRTI RAMS EXCLUDED

 $\mathsf{TNF}\alpha$  antibodies v pills

superior RCT

superior clinic practice

#### Observational cohort

Open / closed

**Channelling bias** 

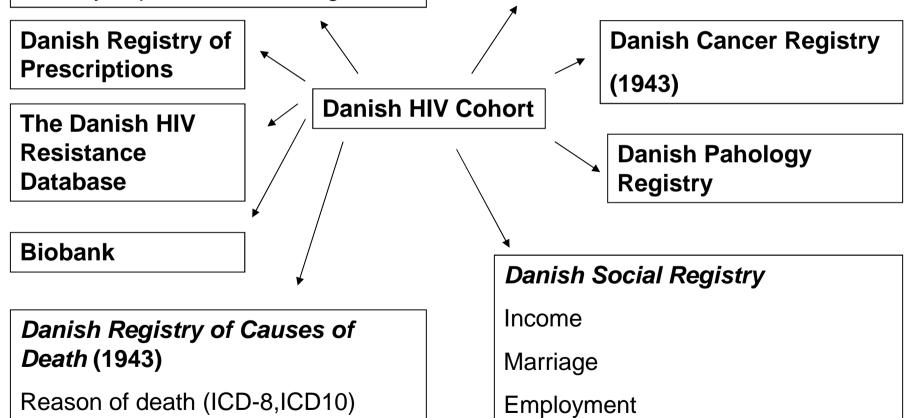
Loss to follow up

# Danish Civil Registration System (1967)

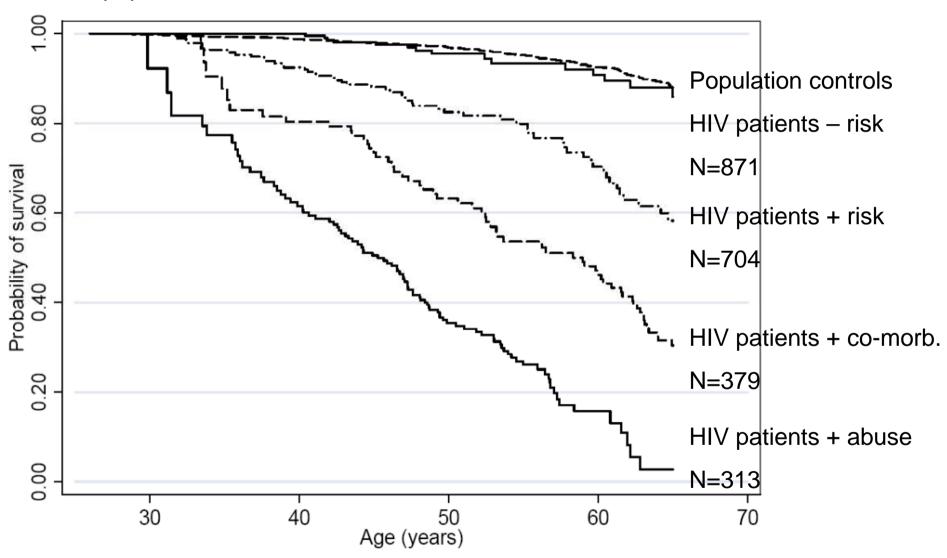
- Date of death,
- •Emmi- and imigration.
- •Identity of parents and siblings

#### Danish Hospital Database (1977)

- Date of inpatient admissions and outpatient visits
- •Diagnosis (ICD-8 until 1993, thereafter ICD-10)

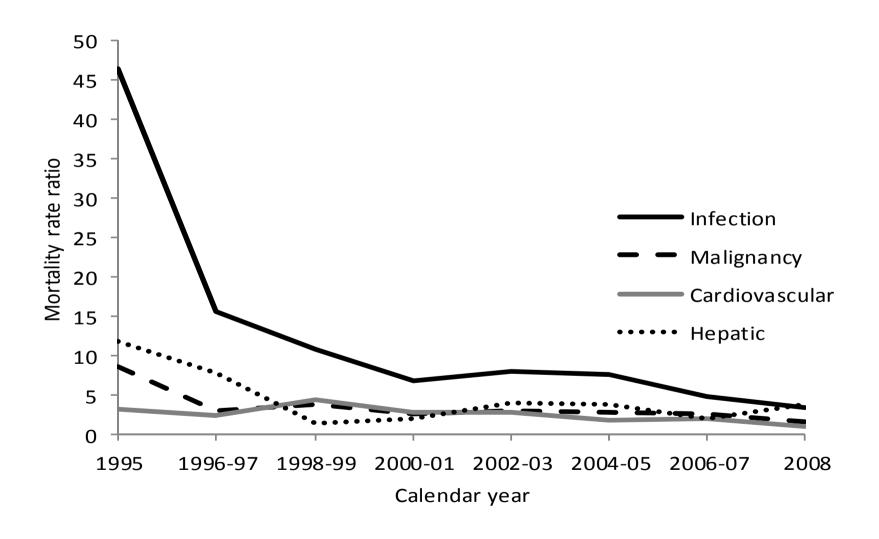


Mortality in HIV patients starting HAART after 1 January 1998 N=2267 And population controls, N=9068

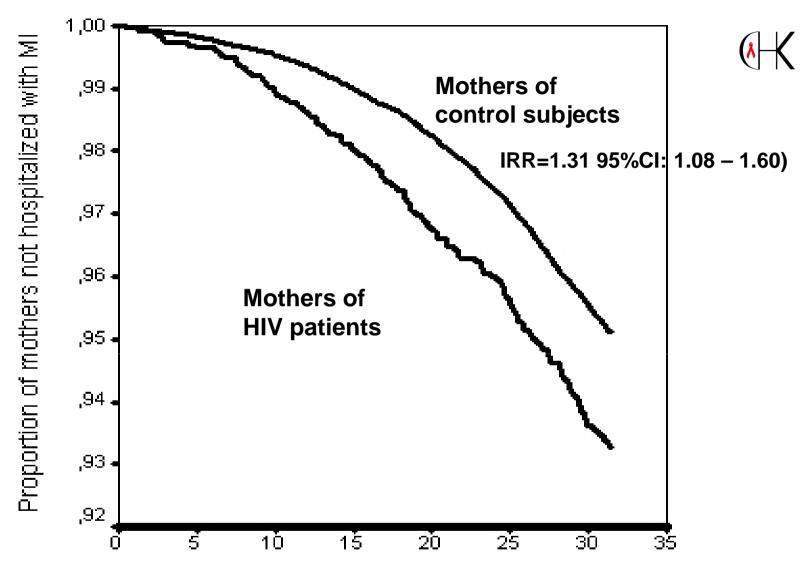


Obel et al., PLoS One 2012

# Causes of death among Danish HIV patients compared to population controls in the period 1995-2008



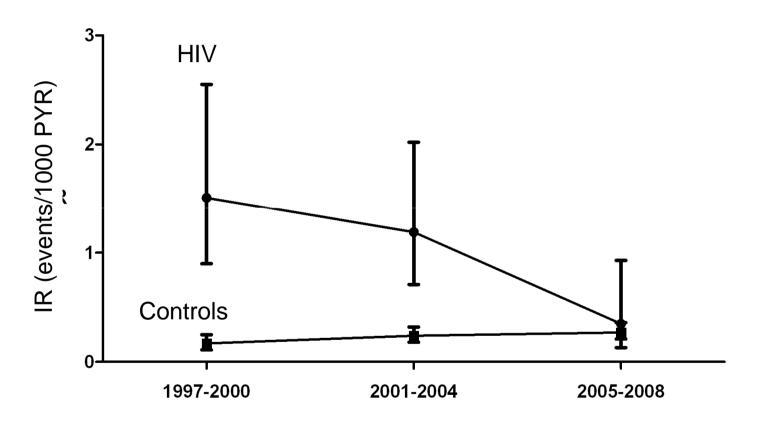
Helleberg et al., Infection 2012



Time after index date, years

Rasmussen et. al, BMC Infectious Diseases, 2011

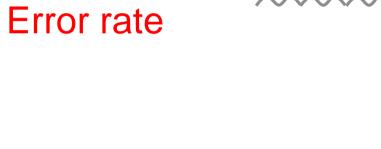
Incidence and impact on mortality of severe neuro-cognitive disorders in persons with and without HIV: a Danish nationwide cohort study

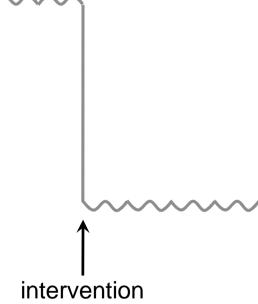


**Figure 1**: Incidence rates (IR) (per 1000 PYR, 95% confidence intervals) for severe neuro-cognitive disorders in HIV-infected patients (filled circles) and population controls (squares) by time periods; 1997-2000, 2001-2004 and 2005-2008.

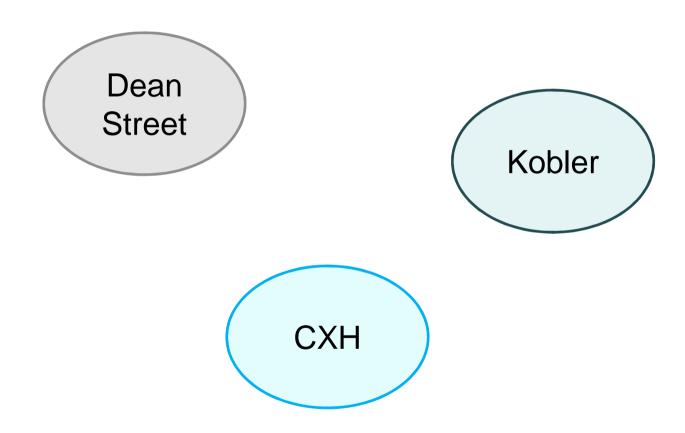
François-Xavier Lescure et al. CID, 2011

# Action research





# Cluster randomisation



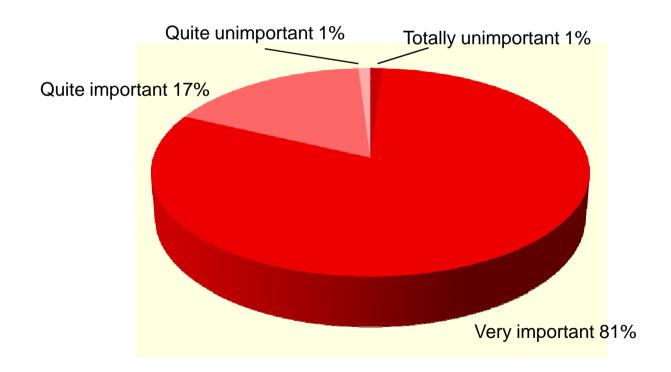
## P.C.O.

```
"better" outcome

_____ better adherence
_____ less expensive
```

# Patient involvement in decision making

Patients were asked: how important is it for you to be involved in medical decisions?



#### **Decision Aids**

Paper based
Web based
Videos

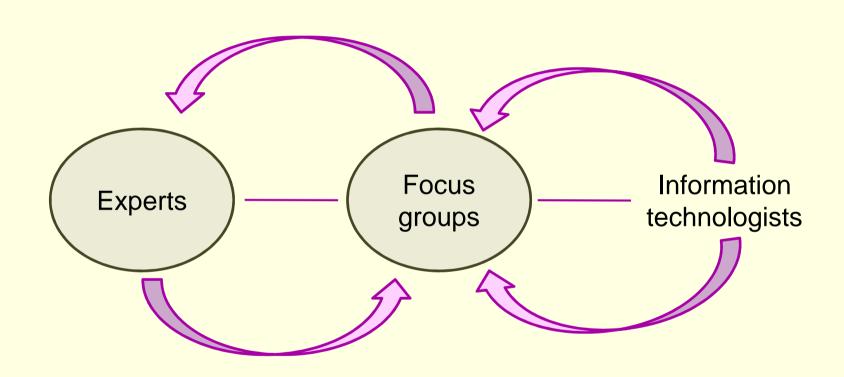
Outcomes:

knowledge
satisfaction
impact on decisions
risk perception
"decision conflict"

Ottowa Decision Support Framework

International Patients Decision Aids Standards (IPDAS)

# Making-a-decision Aid



#### Shared decision criteria

- 1. Equipose
- 2. Not critical
- 3. Preference sensitive

## Rilpivirine v Efavirenz

#### Not preference sensitive

- 1. Need ARV
- 2. Not in renal failure
- 3. Appropriate vaccination

#### **Preference sensitive**

- 1. Side effect profile
- 2. Adherence
- 3. Food requirements

#### Patient Centred Outcomes Research

Patient-centered outcomes research (PCOR) helps people and their caregivers communicate and make informed health care decisions, allowing their voices to be heard in assessing the value of health care options. This research answers patient-centered questions such as:

- 1. "Given my personal characteristics, conditions and preferences, what should I expect will happen to me?"
- 2. "What are my options and what are the potential benefits and harms of those options?"
- 3. "What can I do to improve the outcomes that are most important to me?"
- 4. "How can clinicians and the care delivery systems they work in help me make the best decisions about my health and healthcare?"

#### Complex predicting individual outcomes

#### **System dynamic analysis**

Input: Age

CD4 and slope

**Viral load** 

**BMI** 

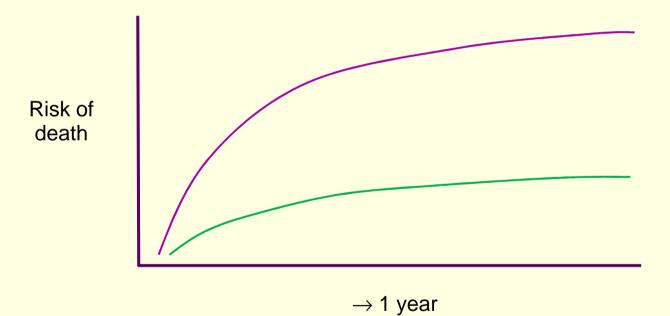
**Anaemia** 

**Smoking** 

Framlingham score

Frax score

# Systemic dynamic analysis



### Rationing

Resources are finite

**Implicit rationing** → **unfair** 

Doctors have a duty of care to the patients they don't see

#### Waste avoidance

10% of health care costs are fraud

40% of healthcare costs are "waste"

# National commissioning

Patient centred

Priority setting using economic evaluations

#### What do patients want?

- 1. ? Local care  $\leftrightarrow$  travel for best care
- 2. ? Freedom from side affects more important than minor changes in efficacy
- 3. 3 pills/day v cost (better health care provision)
- 4. Poorly adherent patients: continue to treat/ no treatment
- 5. 5 mins every 6/52, 1/2 hr per year