

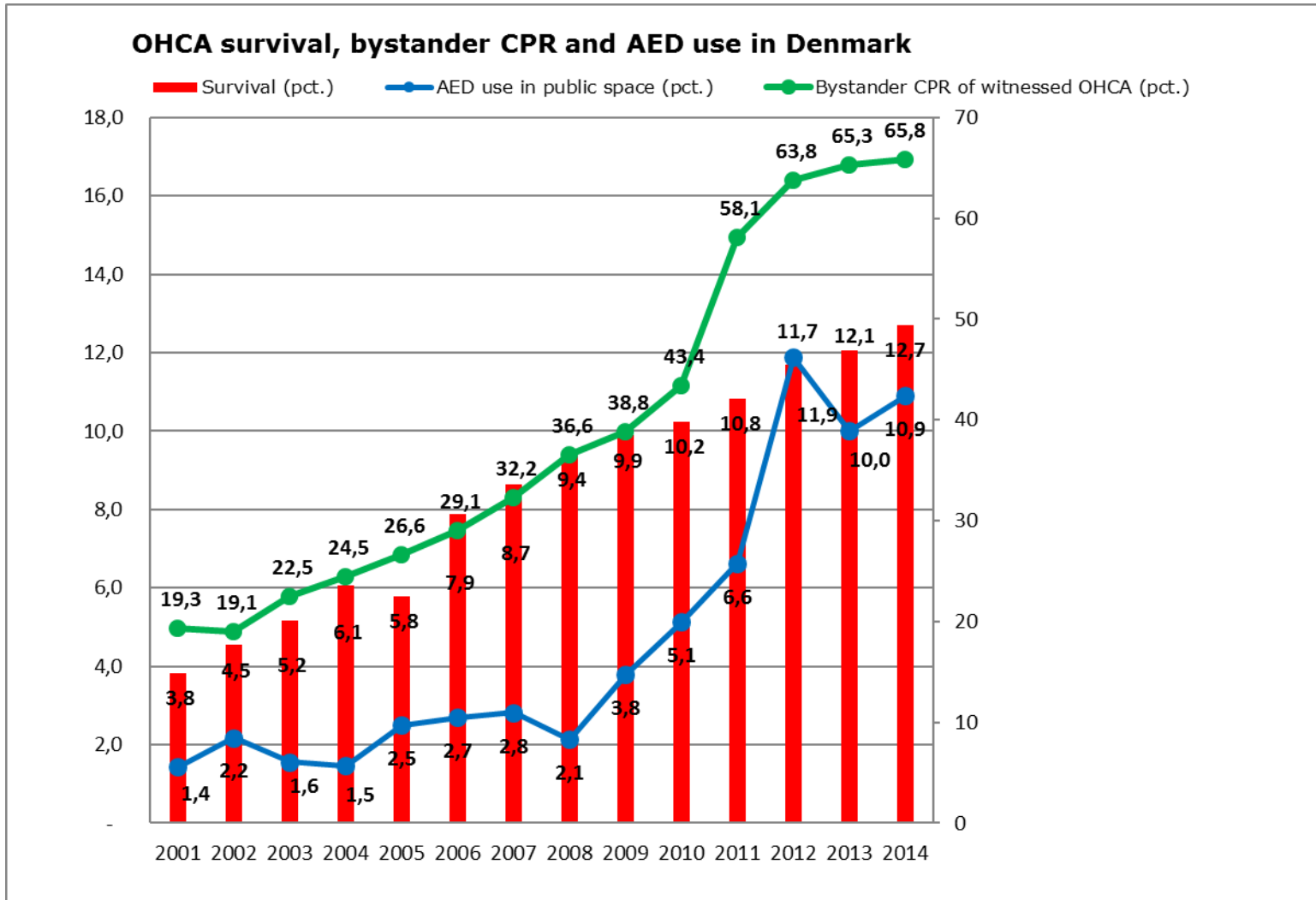
Nordic Stroke 2017 Aarhus – W01

What can we learn from development in resuscitation in Denmark

Anders Hede

Head of Research

TrygFonden



Source: Danish Cardiac Arrest Registry

- Many small mutually reinforcing incremental and sustained improvements
- Collaboration and high ambitions
- Good data
- Flexible research program on the various components in order to adjust policy and generate/test new ideas
- International collaboration on research and policy development
- Embrace communication, politics, media, civil society and the population
- Persistence for at least a decade

We have commitments to collaboration and improvement:

- National learning and quality team
- Prehospitals sees stroke as “the next big thing”
- Stroke integrated into Danish Council for Resuscitation

We have good data

- Plans for improvement (prehospital and PRO)

We have good researchers

- Building collaboration and persistence
- Flexible funding of small and larger projects

International collaboration on population/prehospital improvements?

- A new “Utstein”?

(very preliminar results – only reported for +55 year old)

Fairly high levels of knowledge in the population

Unsolicited - 43 pct. cannot mention a symptom, 17 pct. mentions wrong symptoms. But 30 pct. can mention two or more correct symptoms

Solicited – 58 pct. gets three or more symptoms right (of 10 correct and 3 wrong symptoms + don't know to choose among).

14 pct. get no right answers or don't know

Much **uncertainty about whether symptoms require a 112 call** – only numbness (“følelsesløshed”) in arm, leg, face feels really serious

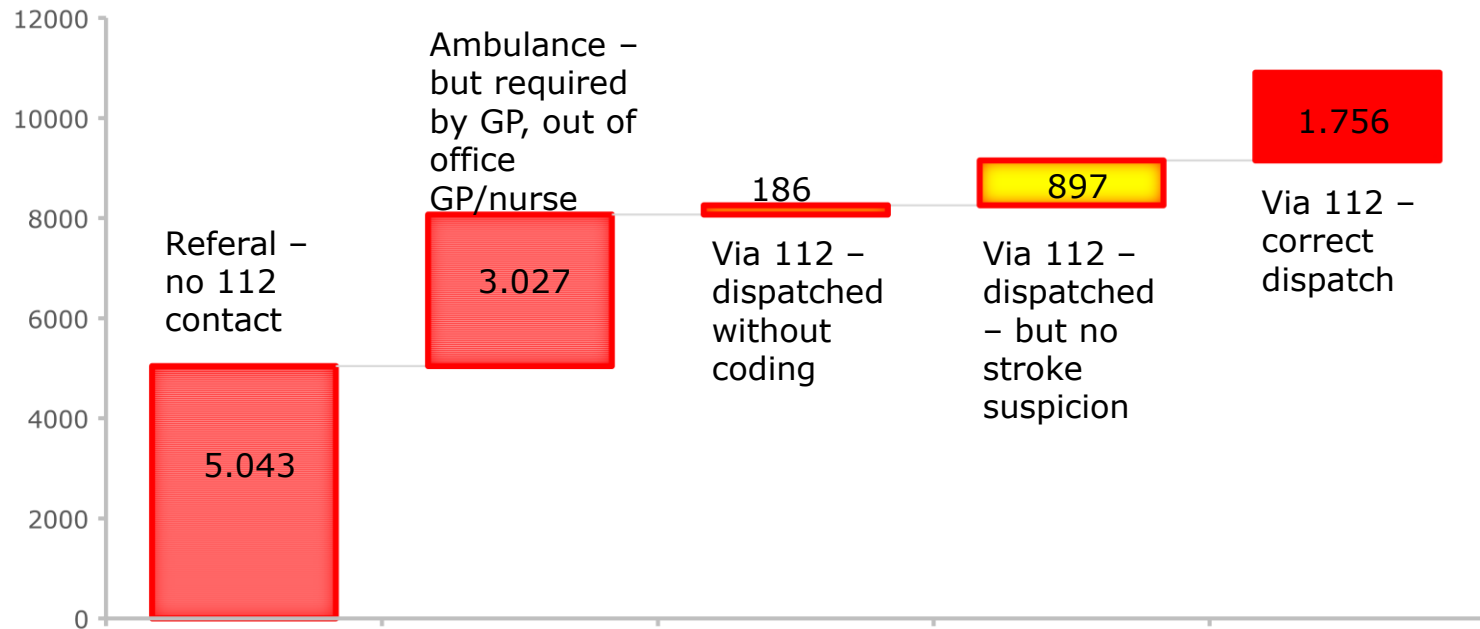
Severe **underestimation of the treatment window** of stroke. 72 pct. thinks it is 2 hours or below.

Very **considerable public experience already with stroke:**

70 pct. knows someone who has been affected (56 pct. among 18-54 years)

15 pct. have tried to alarm on suspicion of stroke (7 pct. among 18-54 years).

How did stroke patients reach the hospital – Metropolitan Region 2012-2013.
Of 10.909 strokes (TIA, AIS, ICH)



Decent detectionsrate at 112 at overall 66 pct. – TIA 74 pct., AIS 66 pct. and ICH 51 pct.

Of 135.468 ambulance dispatches 5.805 was to suspected stroke - 30 pct. PPV/“hit rate”.

Data: Vierick et al, SJTREM (2016) 24:89

Proposal primary target: **35 pct. of AIS in active treatment**

Secondary targets: average delay, 3 month survival and function mRS for **all** strokes

Can we get there – i.e. **doubling** the average treatment rate?

- The best areas are already in the 20s and slowly improving
- Reduction of delay before 112-calls
- Reduction of delay at GPs, out of office services
- After 112 call - continuous improvements in the prehospital system – less delay, fewer wrong admissions etc.
- Broader indications for treatment

"We always overestimate the change that will occur in the next two years and underestimate the change that will occur in the next ten."

Bill Gates