



Demography of death and dying

Year 4 core teaching week

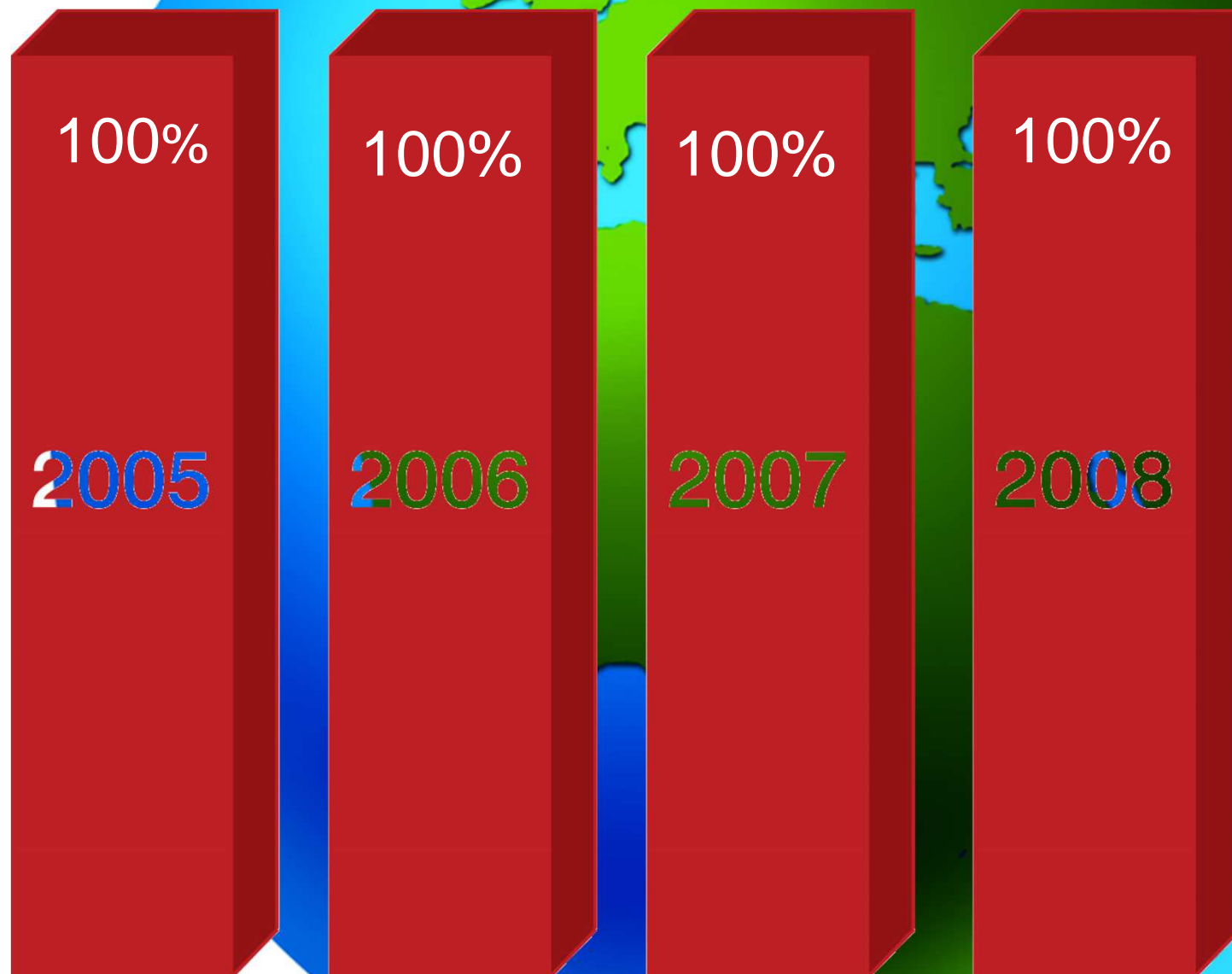
Prof Scott A Murray

Primary Palliative Care Research Group, General Practice

www.chs.ed.ac.uk/gp/research/ppcrg.php

Scott.Murray@ed.ac.uk

World Mortality Rate



Profile of People who die



UK1900 /

Age at death

46

- **Top 3 causes**

1. Infectious diseases
2. Accident
3. Childbirth

- **Disability before death**

➤ Not much

UK 2020

Age at death

78

- **Top 3 causes**

1. Cancer
2. Organ failure
3. Frailty/ dementia

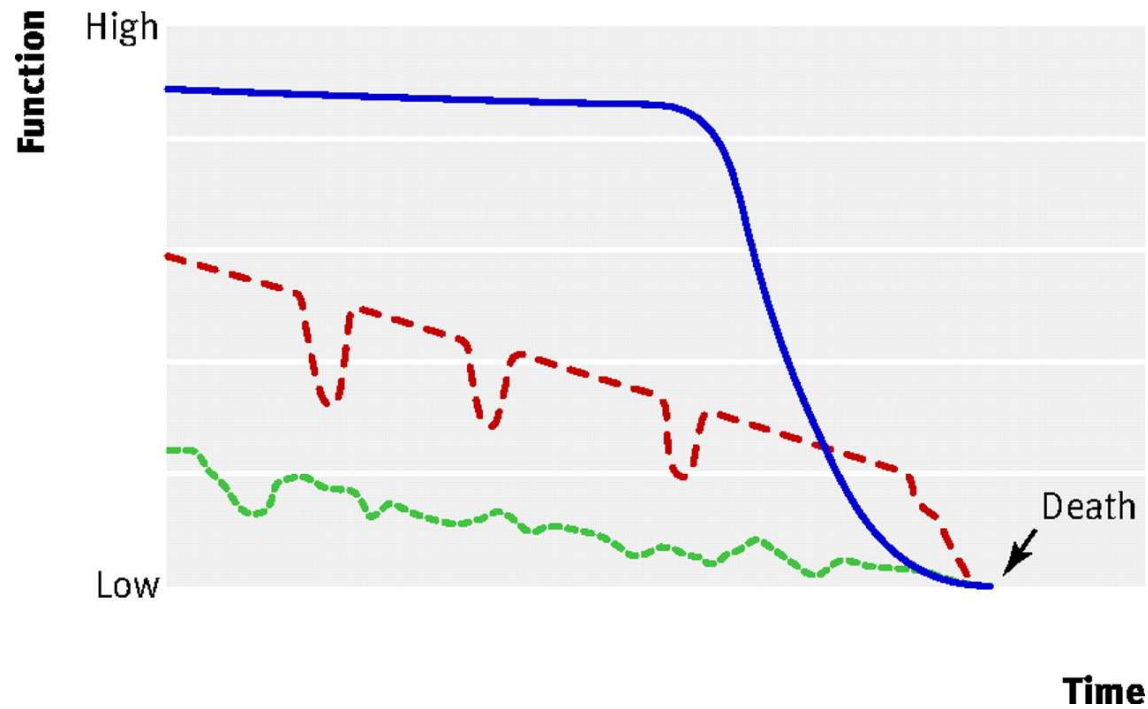
- **Disability before death**

➤ Months - many years

The three main trajectories of decline at the end of life

Number of deaths in each trajectory, out of the average 20 deaths each year per UK general practice list of 2000 patients

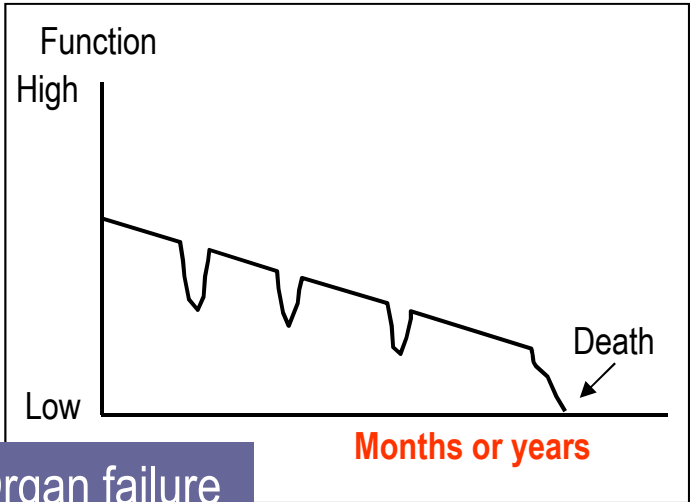
- Cancer (n=5)
- - - Organ failure (n=6)
- · - · - Physical and cognitive frailty (n=7)
- Other (n=2)



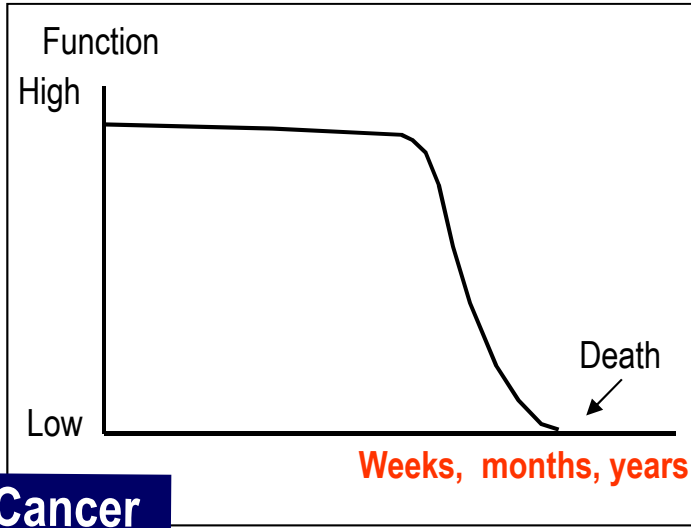
Murray, S. A et al. *BMJ* 2008;336:958-959

BMJ

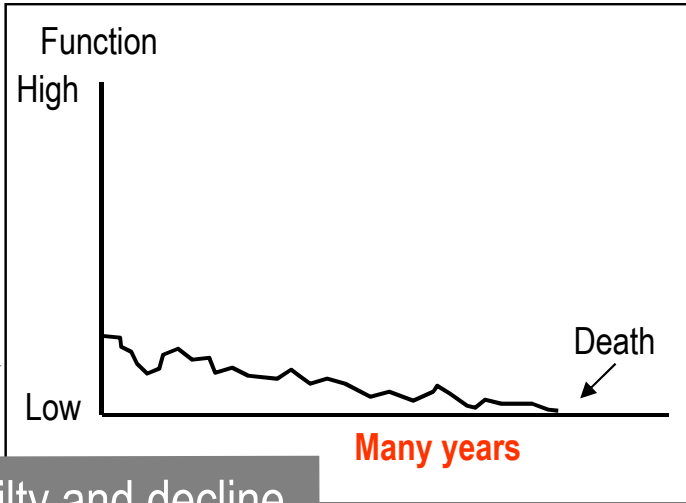
3 trajectories



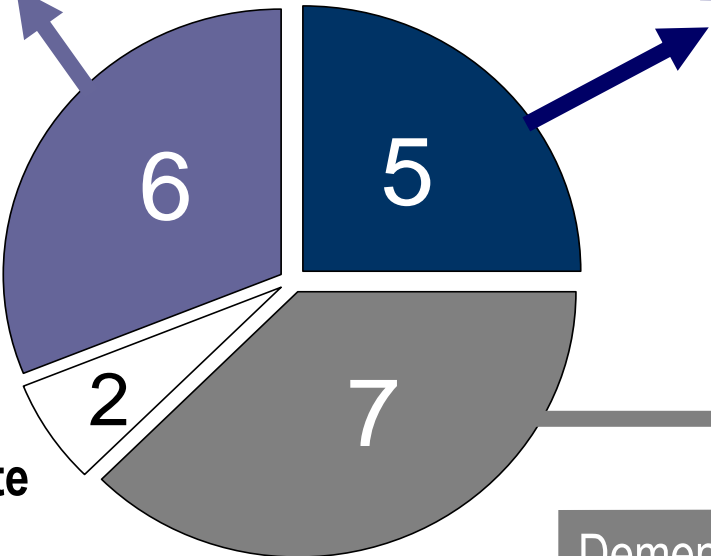
Organ failure



Cancer



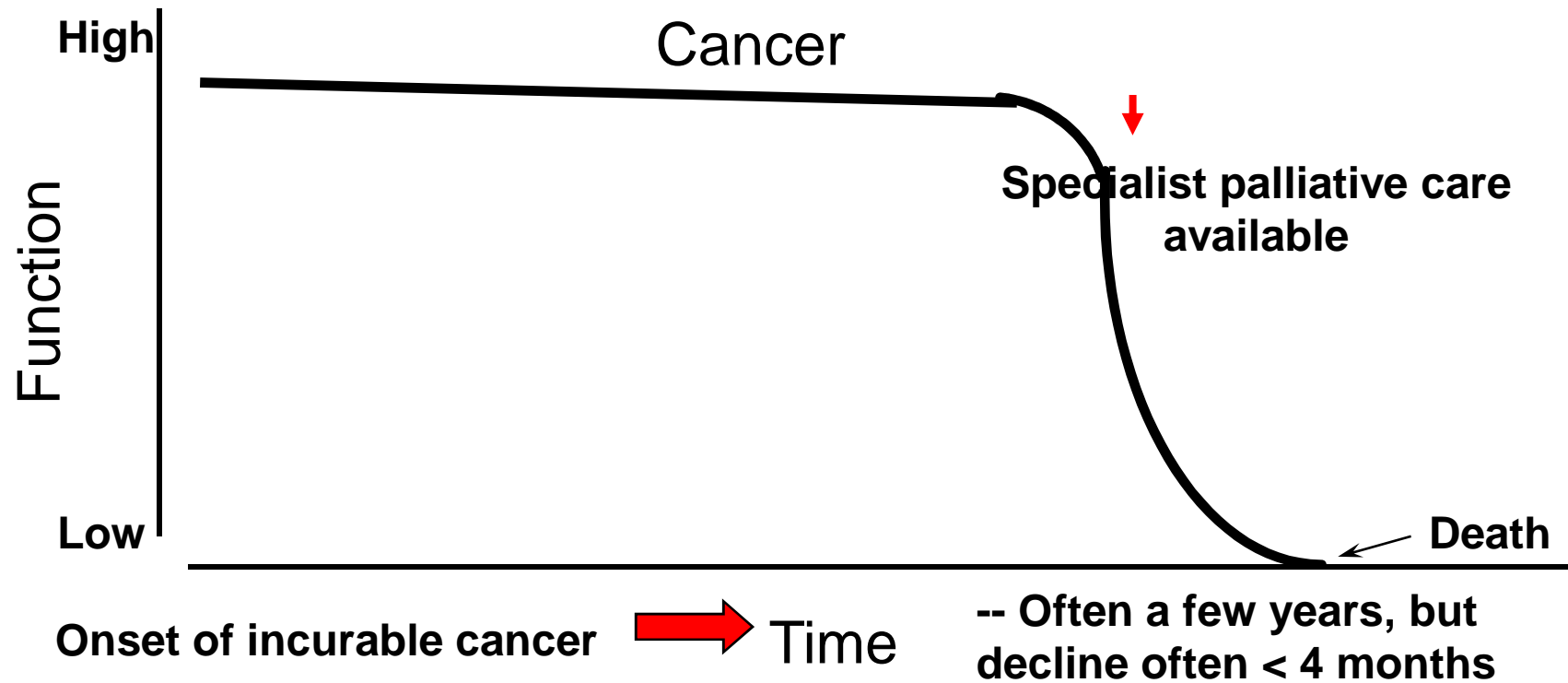
Dementia, frailty and decline



GP has 20 deaths per list of 2000 patients per year

Acute

“Cancer” Trajectory, Diagnosis to Death



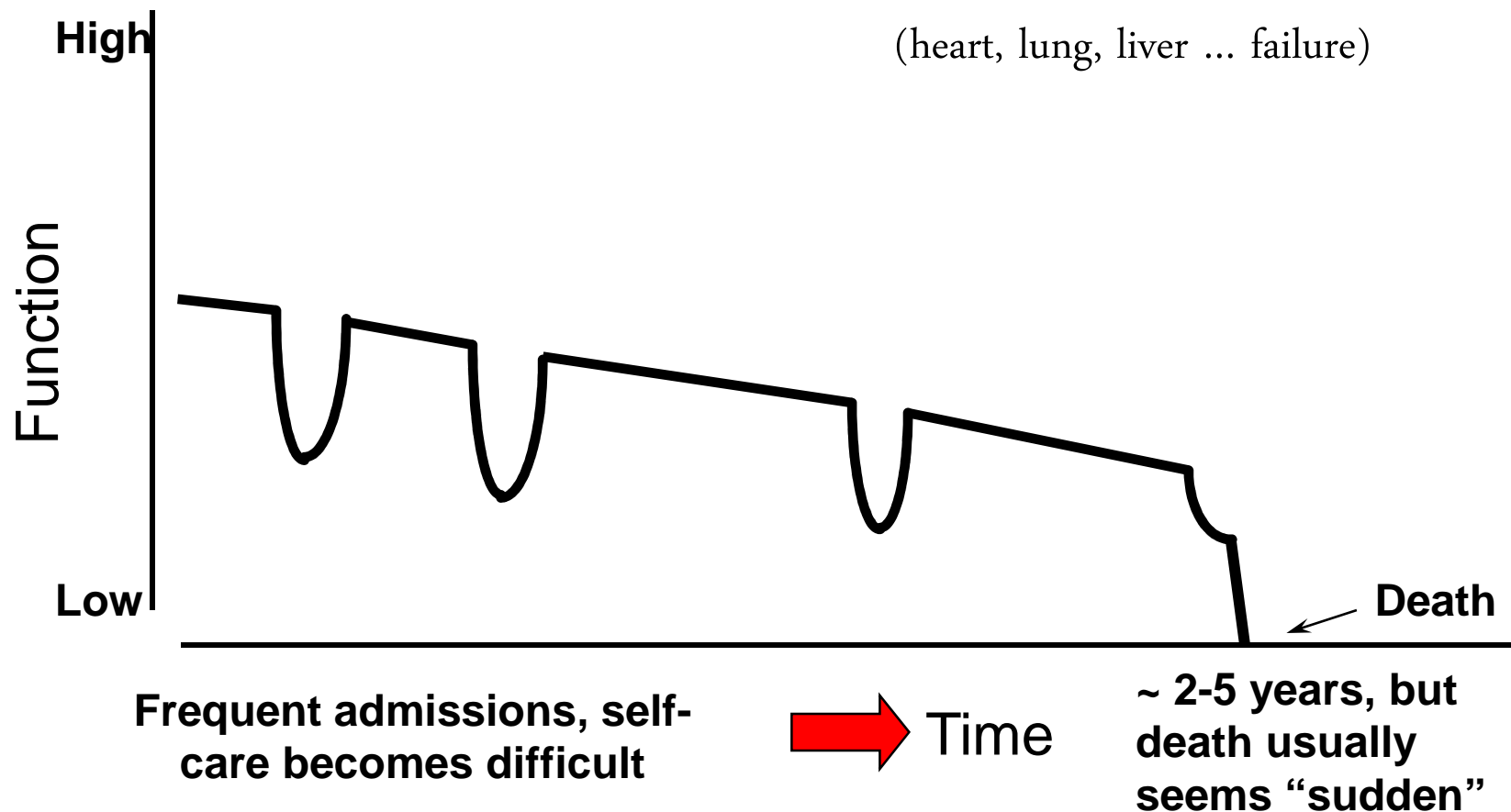
Generally predictable course, short decline

Relatively well resourced hospice care fits well

Organ failure trajectory



Organ System Failure Trajectory



Needs: acute care for exacerbations, chronic care, support at home*.

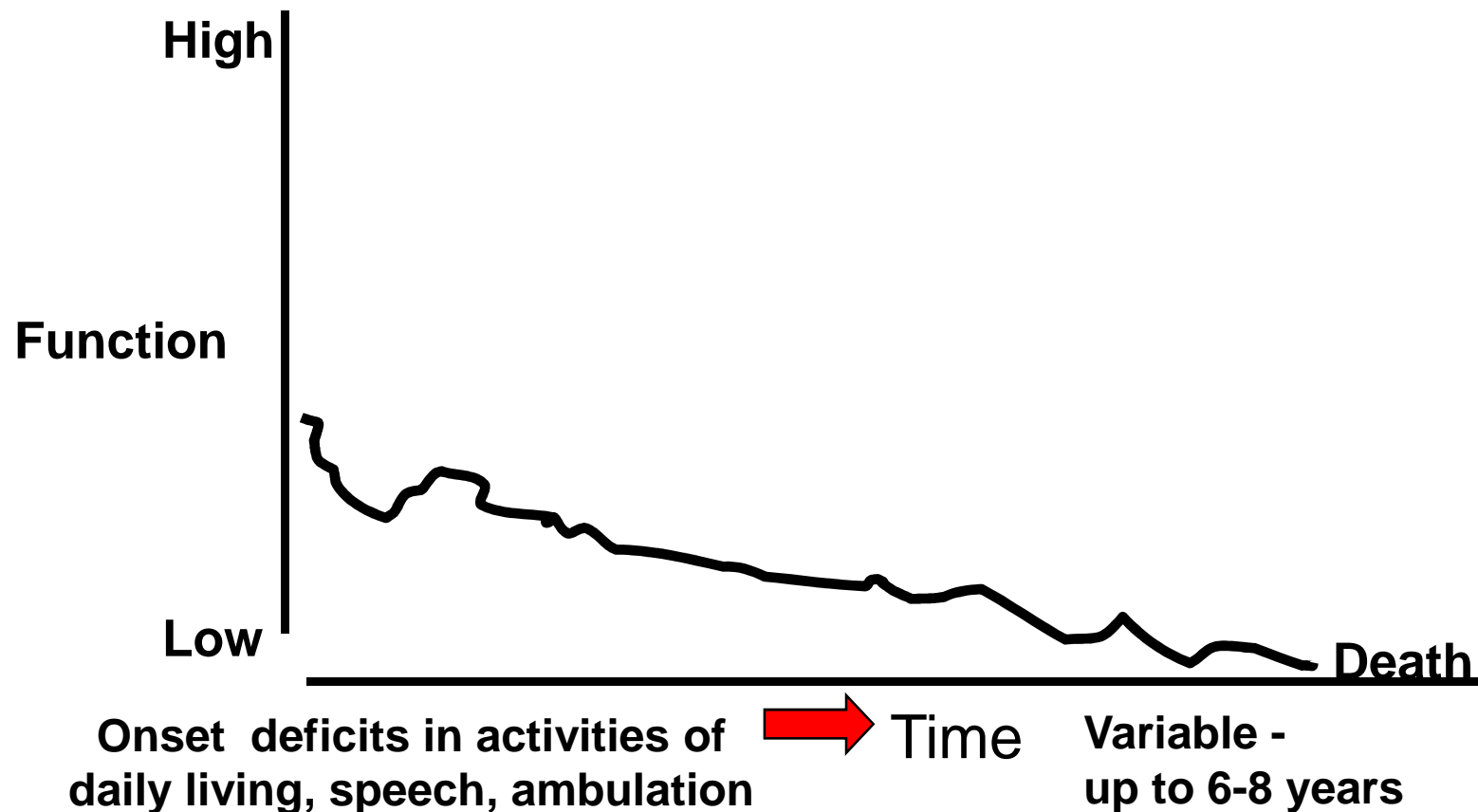
No service designed to routinely meet the needs of this pattern of decline

*No one seems to believe we have got this even half right. Delamothe T. BMJ 2009;338:b11457

Frailty trajectory



Dementia/Frailty Trajectory

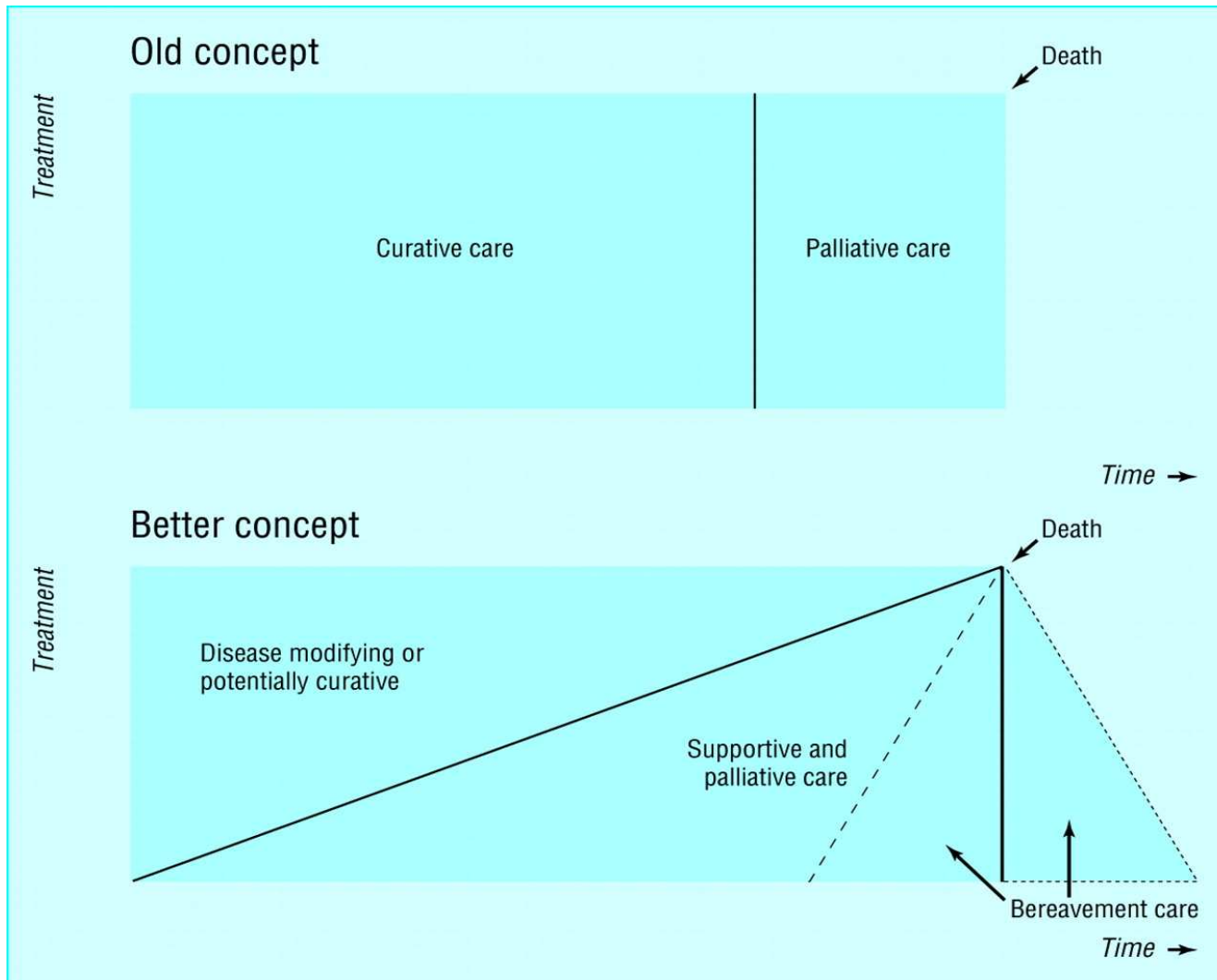


Needs: Integrated clinical care

Long term support at home, carer support, possibly nursing care.

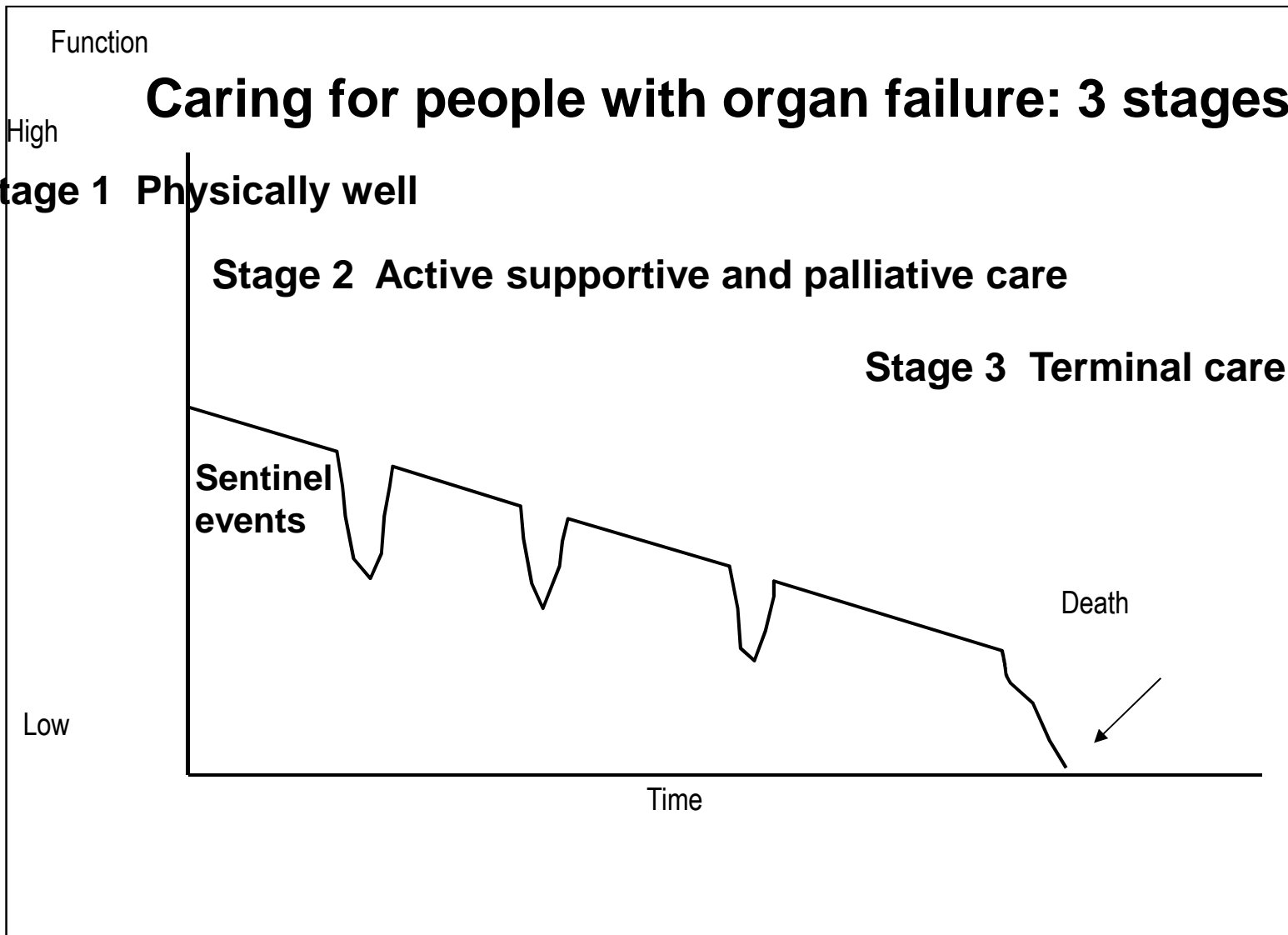
Care homes with reliably good end-of-life care

When to shift gear?

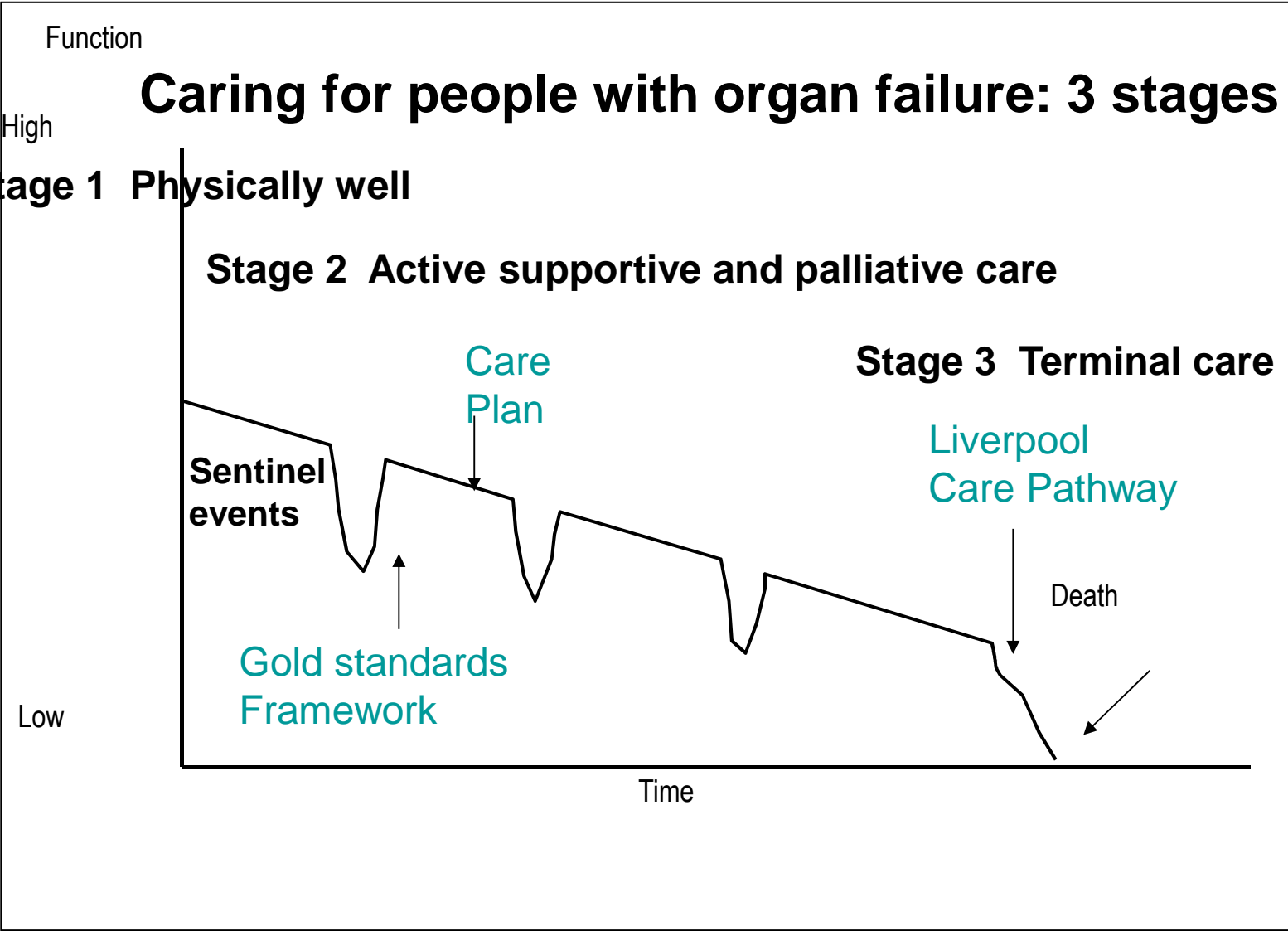


Murray SA, Kendall M, Boyd K, Sheikh A.
Illness trajectories and palliative care.
BMJ. 2005; 330:1007-1011.

bmj.com



Boyd K and Murray SA . Recognising and managing key transitions in end of life care. *BMJ* 2010;341:c4863.



When is a patient palliative?

- Would you be surprised if Mrs A were to die within the next 12 months?



Joanne Lynn USA

- Study in cardiology ward revealed that this question identifies 60 -70% of admissions
- Avoid “prognostic paralysis* ”

*Murray SA, Boyd K, and Sheikh A. Palliative care in chronic illnesses: we need to move from prognostic paralysis to active total care. *BMJ* 2005. 330:611-12.