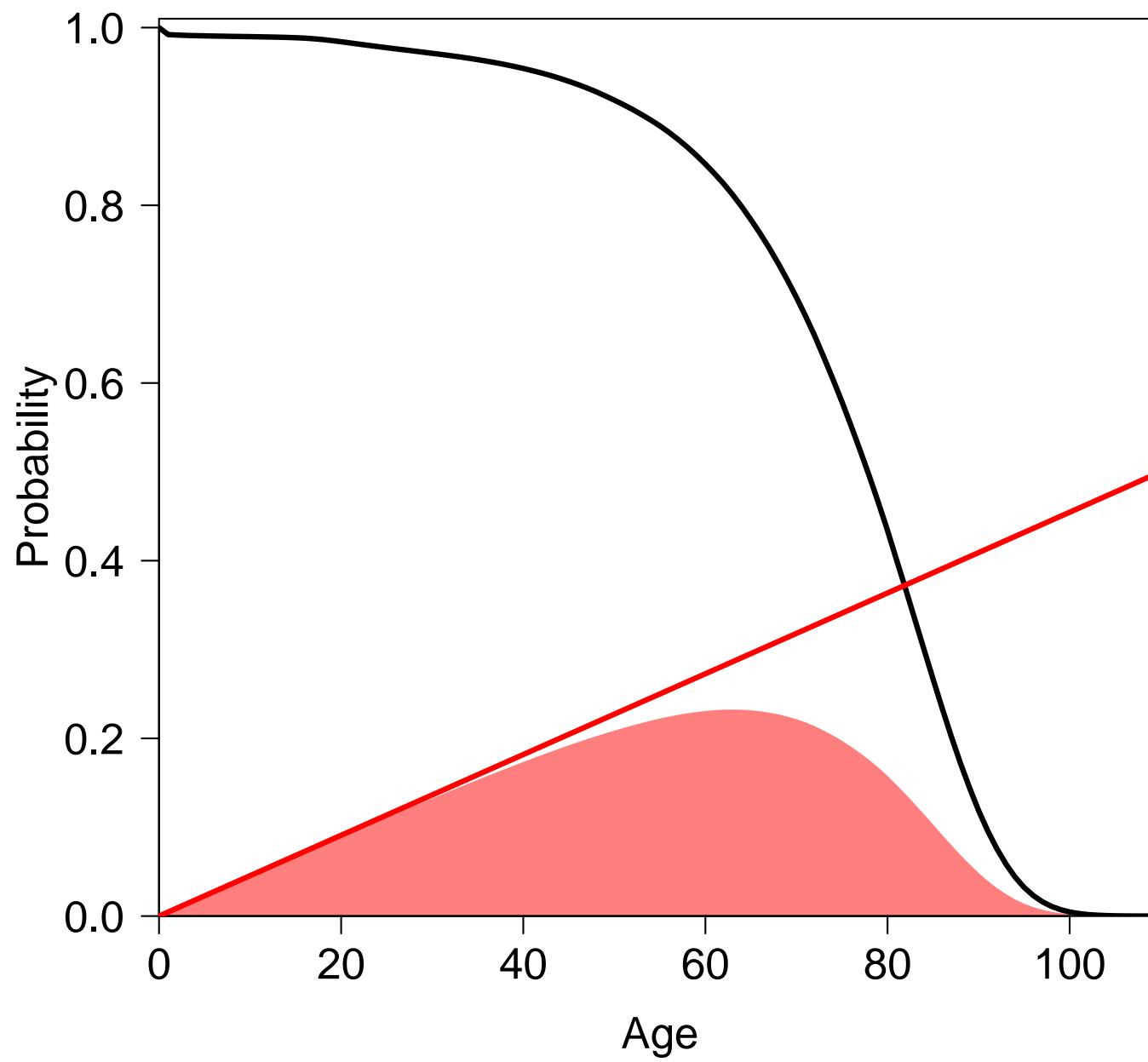


MAX PLANCK INSTITUTE
FOR DEMOGRAPHIC
RESEARCH

Prevalence and the variance of state occupancy time

Tim Riffe and Iván Williams



Question:

Question: In a Sullivan setting,
can we know the variance of
state occupancy time?

Answer:

Answer: No, sorry.

Answer: No, sorry.
But wait!

Preliminary observations

Preliminary observations

- ▶ life **trajectories** come first

Preliminary observations

- ▶ life **trajectories** come first
- ▶ observed or generated

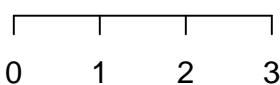
Preliminary observations

- ▶ life **trajectories** come first
- ▶ observed or **generated**
- ▶ **assumptions** required

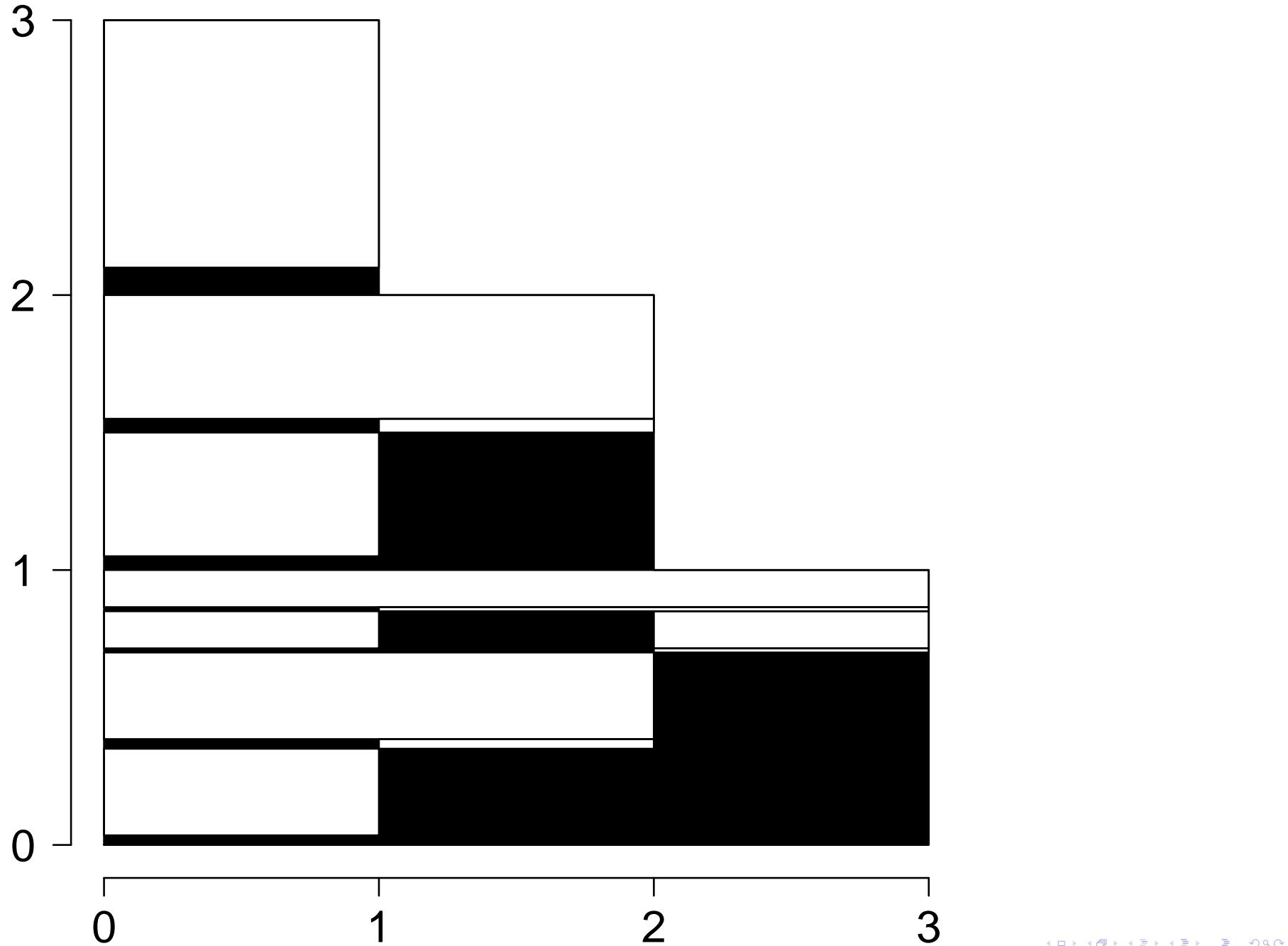
Preliminary observations

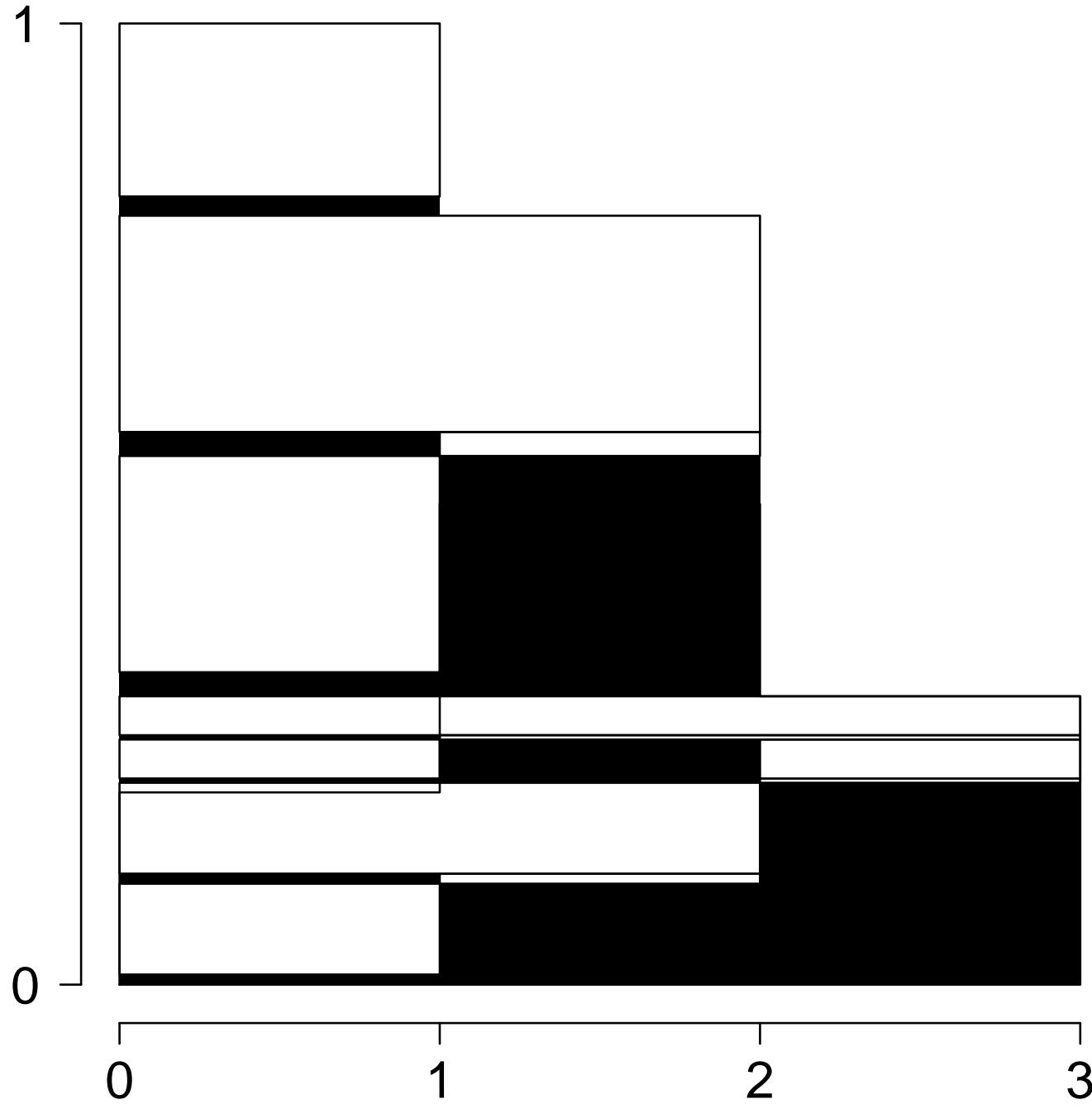
- ▶ life **trajectories** come first
- ▶ observed or **generated**
- ▶ **assumptions** required
- ▶ let's explore some

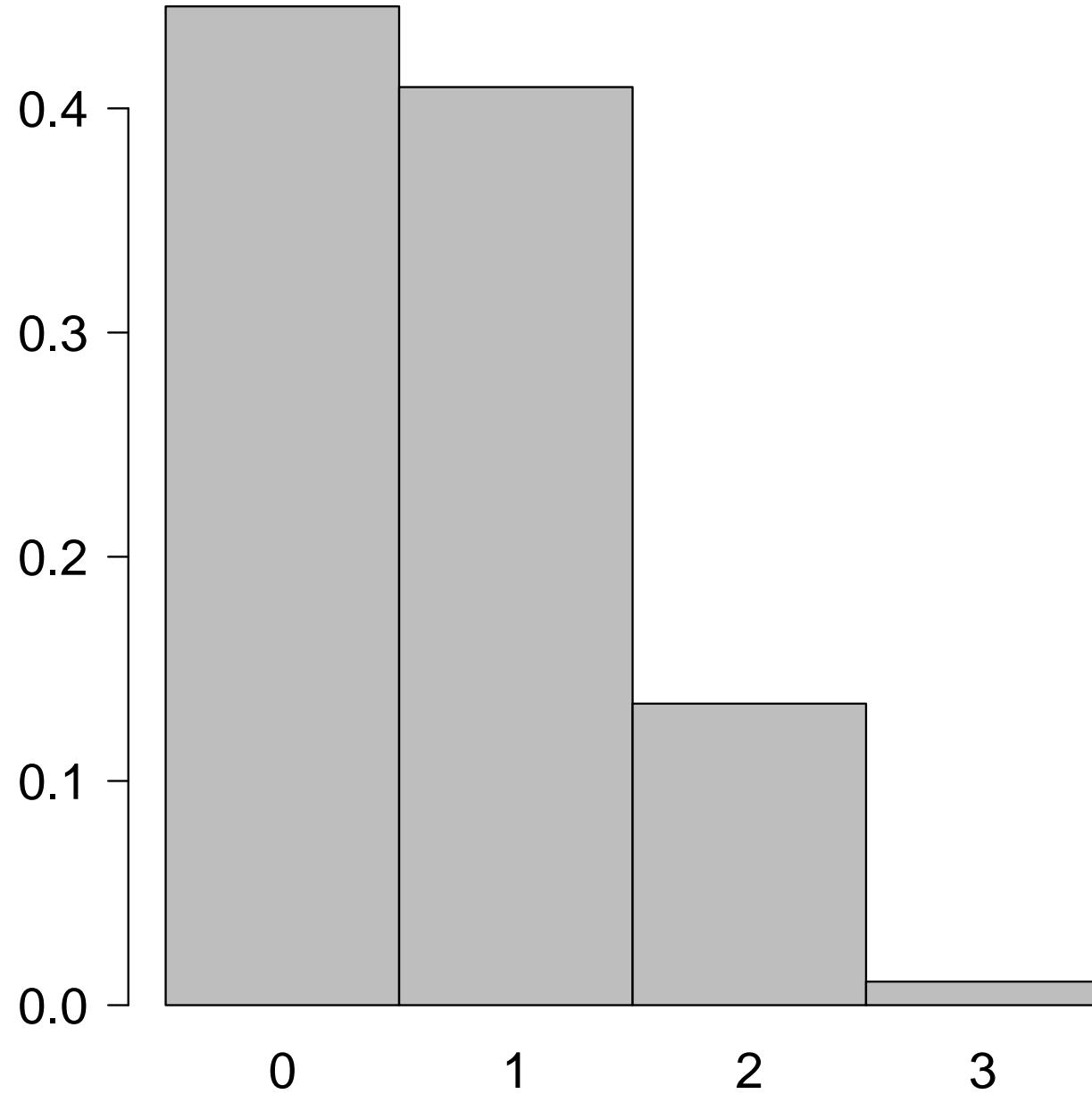
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2	1	
3	0	0
4	1	0
5	0	1
6	1	1
7	0	0
8	1	0
9	0	1
10	1	1
11	0	0
12	1	0
13	0	1
14	1	1



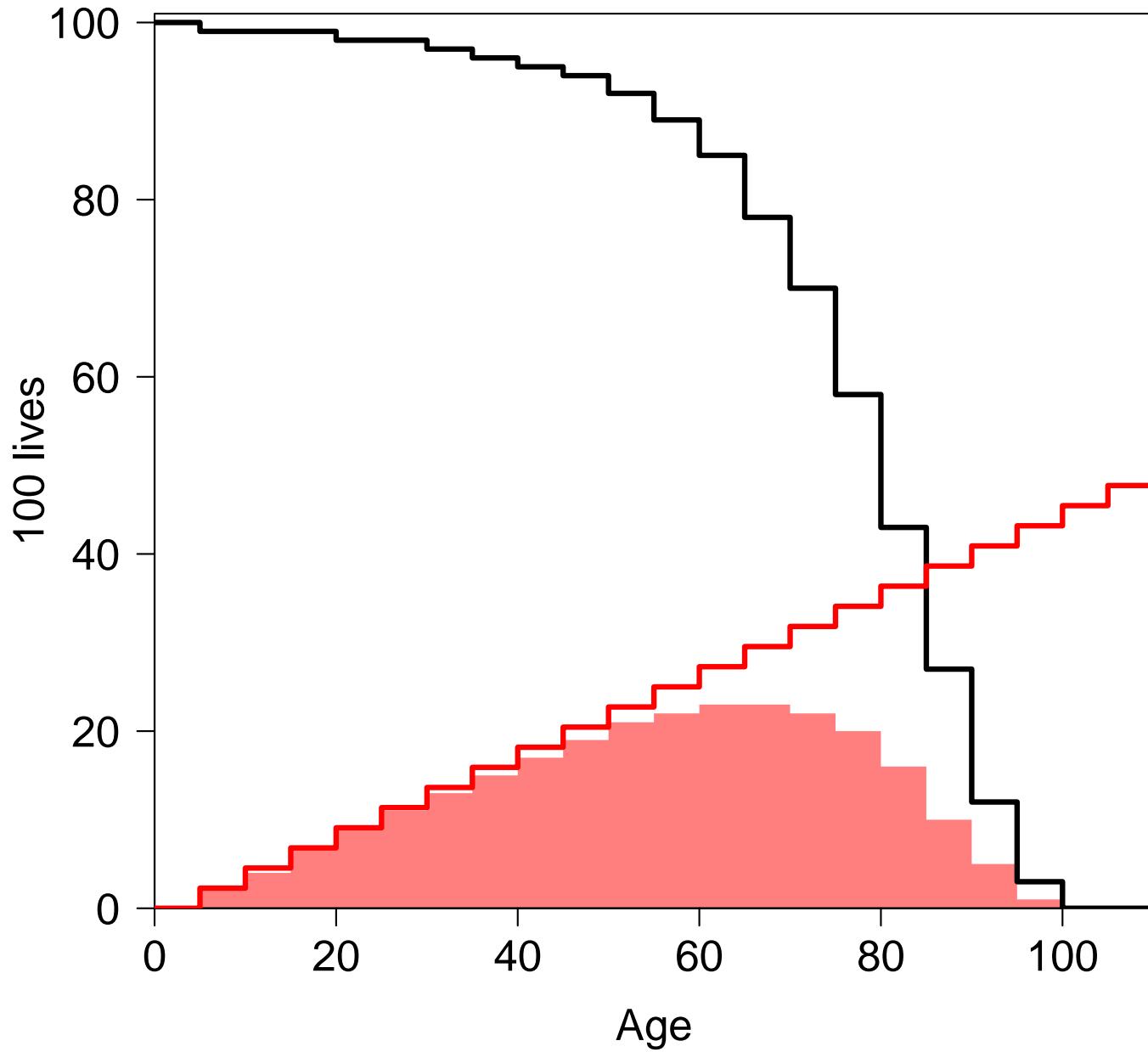
1	0.9		
2	0.1		
3	0.9	0.5	
4	0.1	0.5	
5	0.9	0.5	
6	0.1	0.5	
7	0.9	0.5	0.3
8	0.1	0.5	0.3
9	0.9	0.5	0.3
10	0.1	0.5	0.3
11	0.9	0.5	0.7
12	0.1	0.5	0.7
13	0.9	0.5	0.7
14	0.1	0.5	0.7

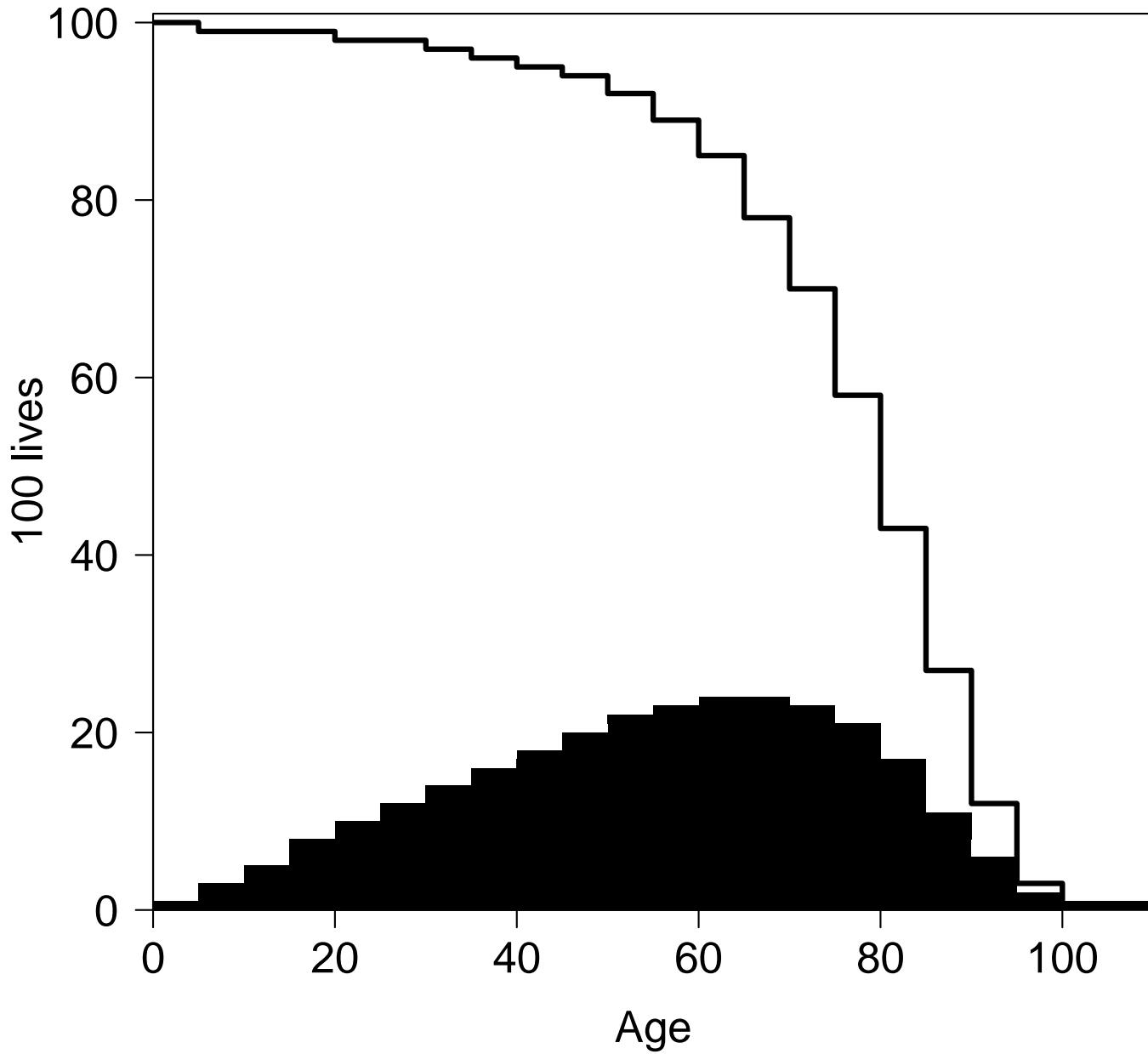


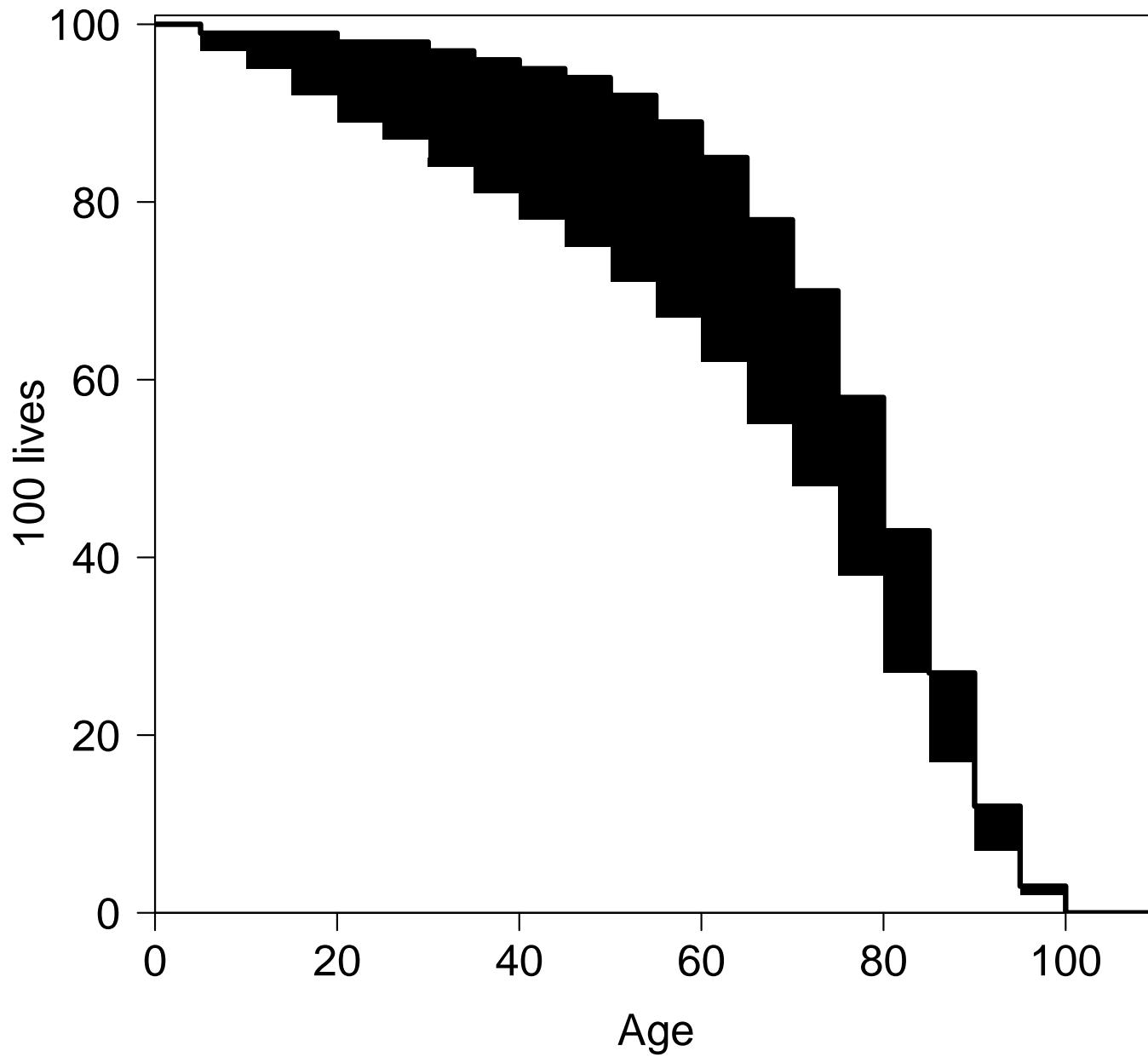


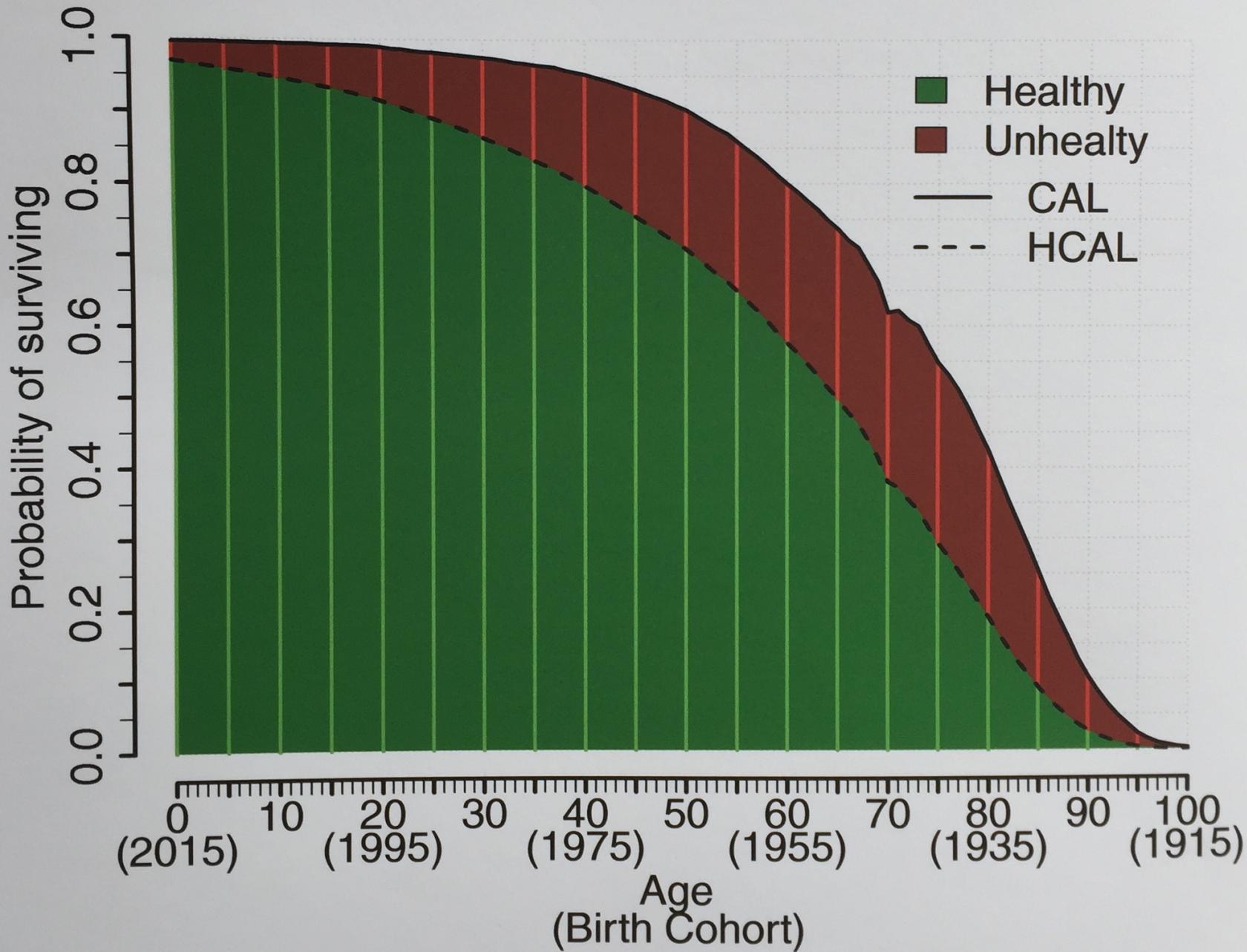


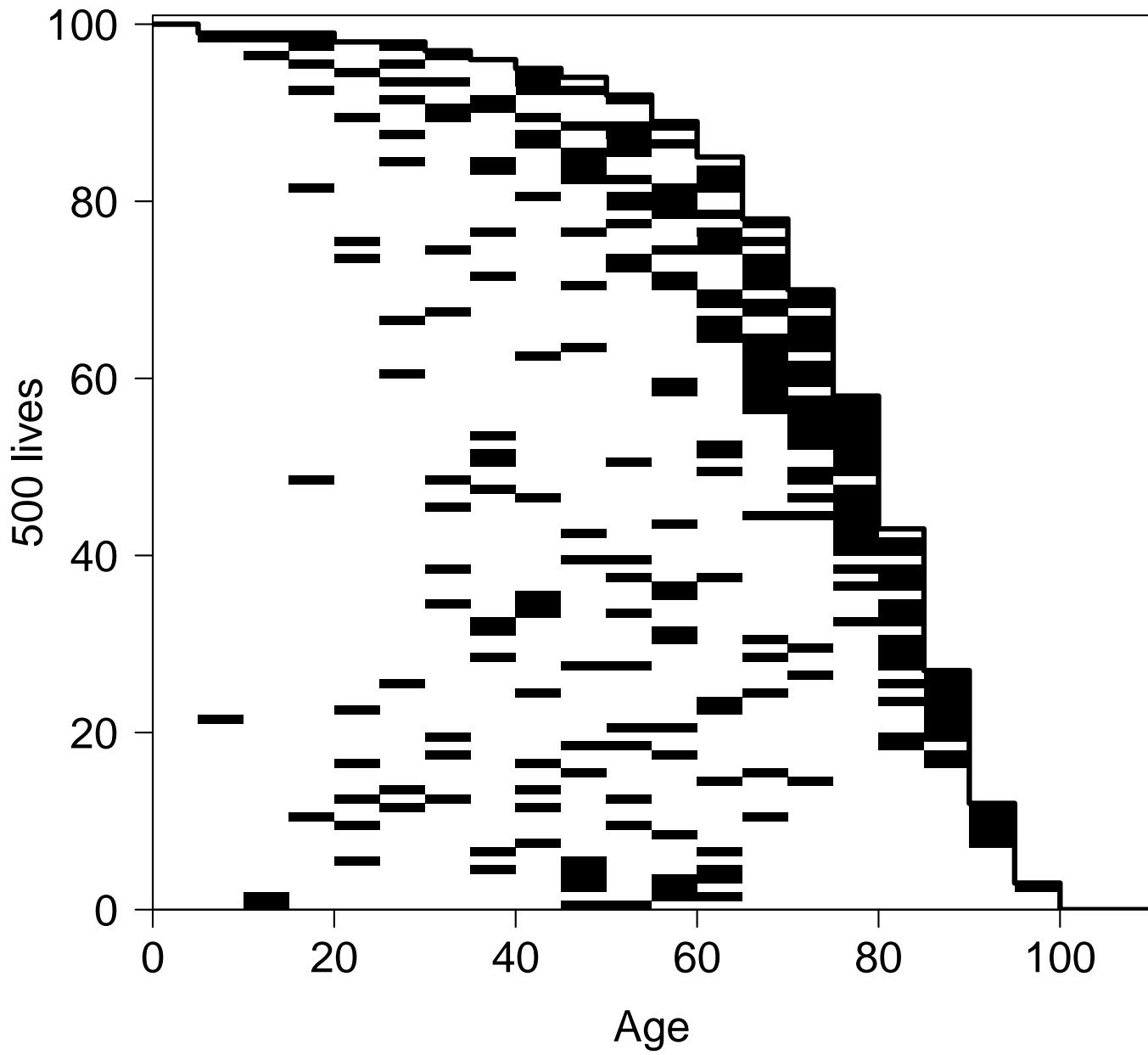
Many ways to combine
survivorship and prevalence. . .

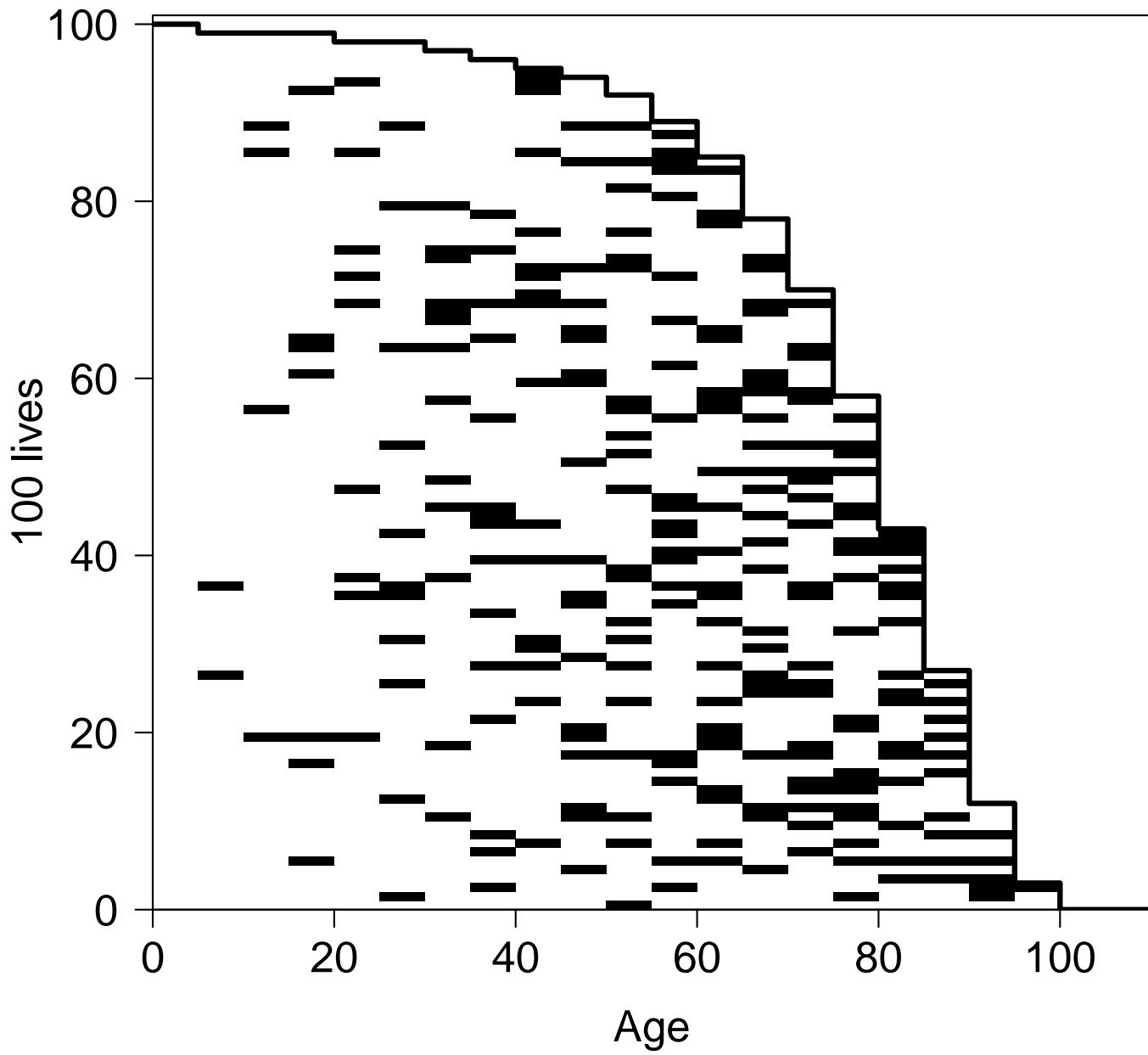


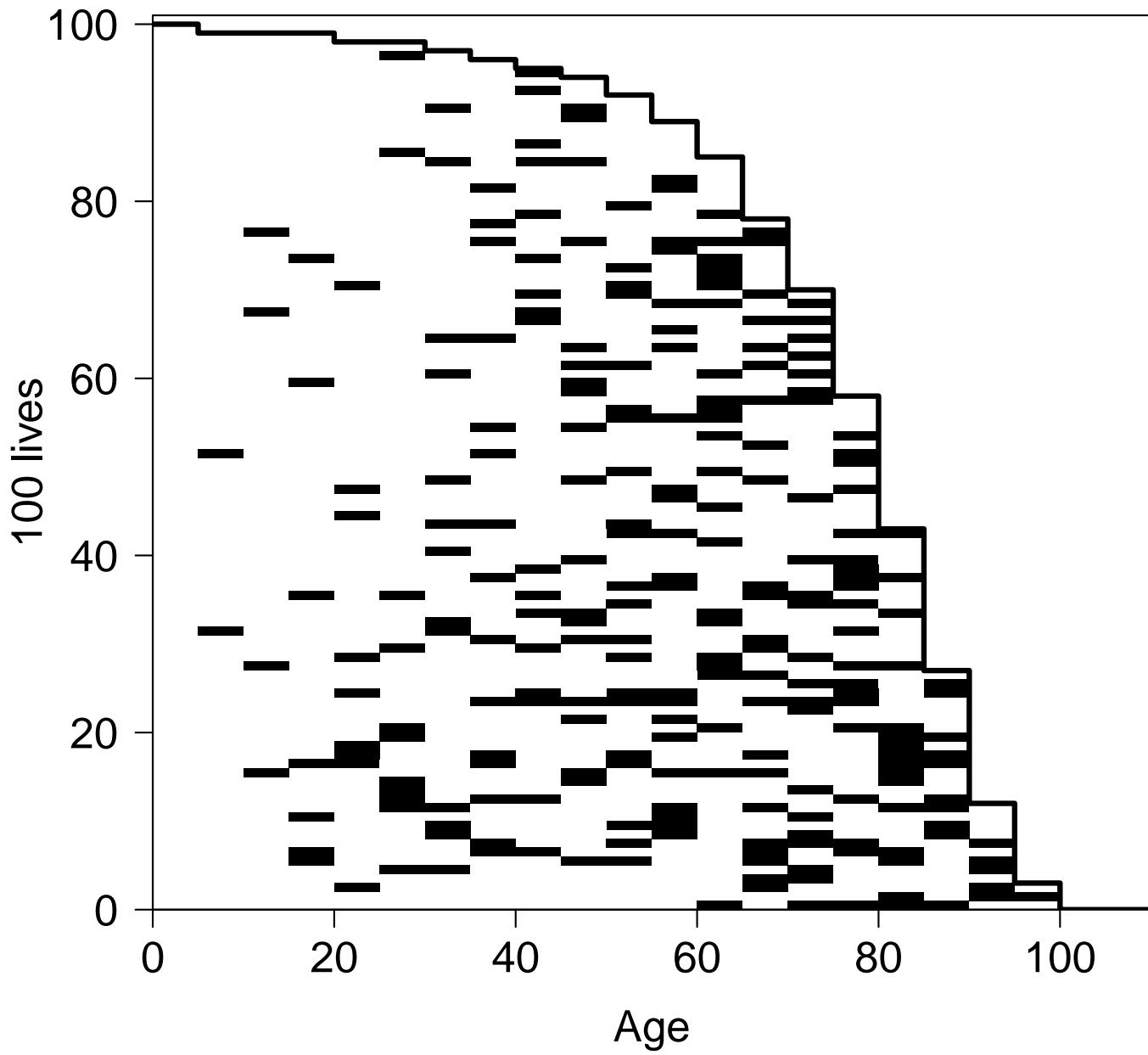


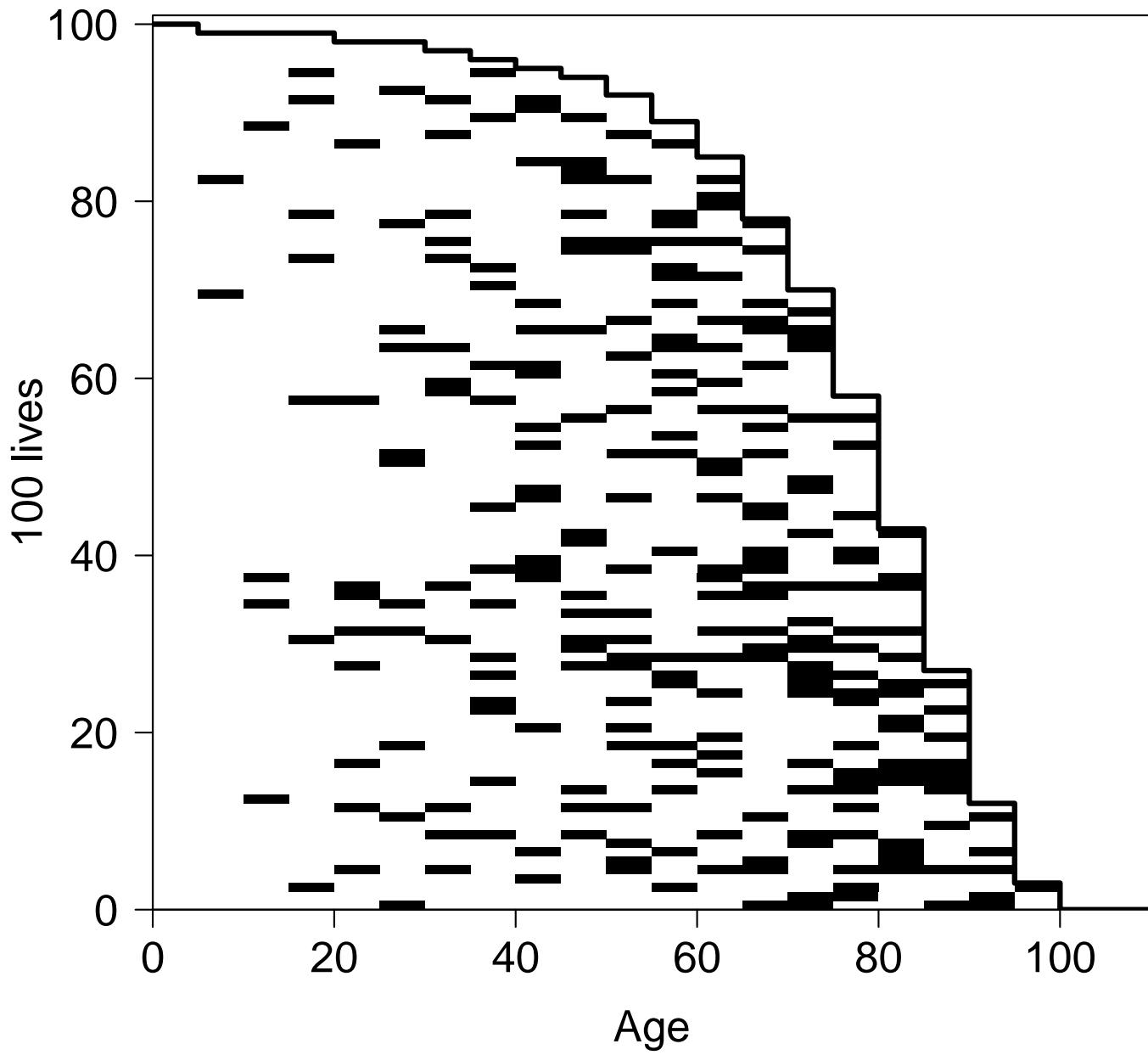


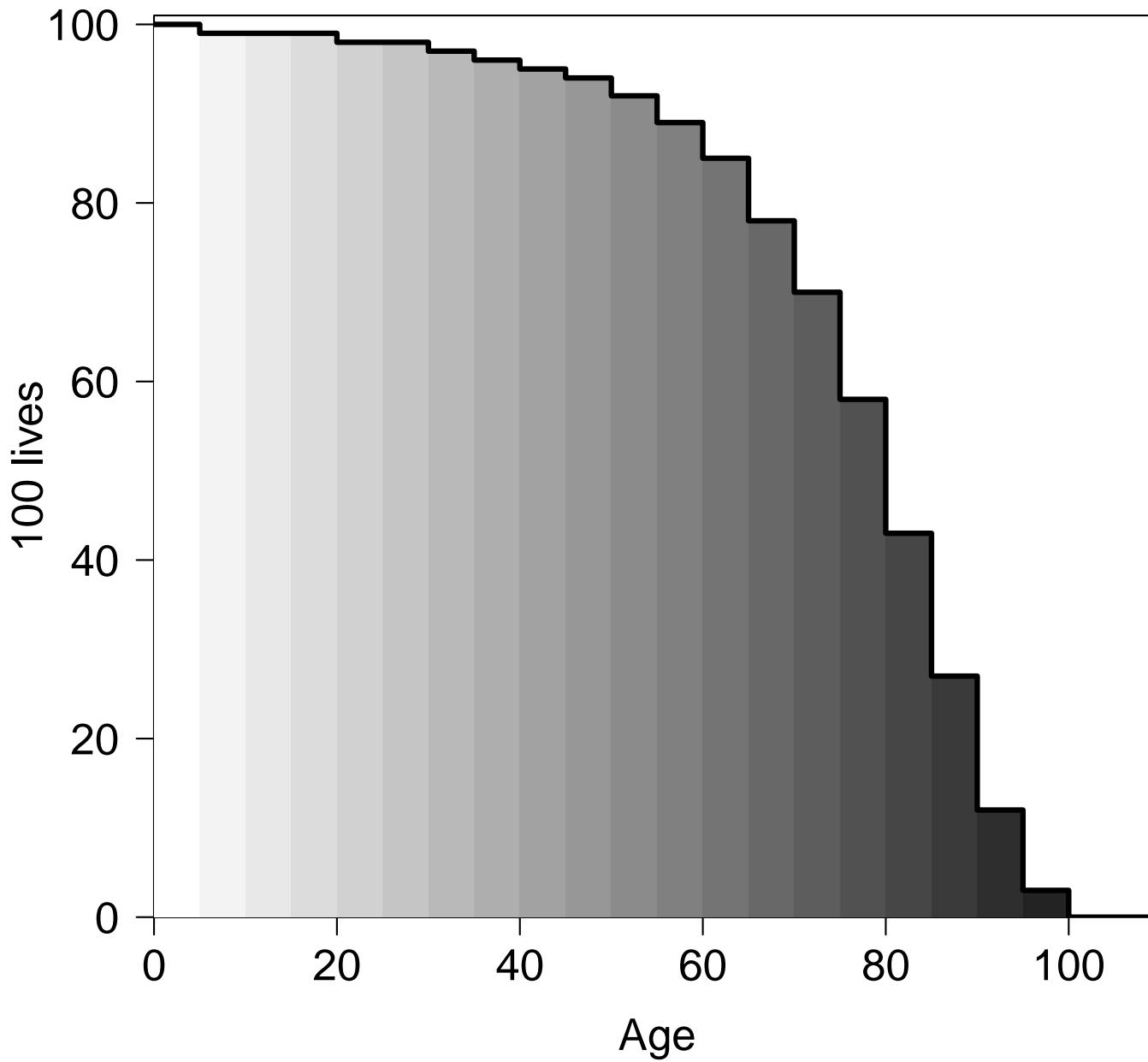




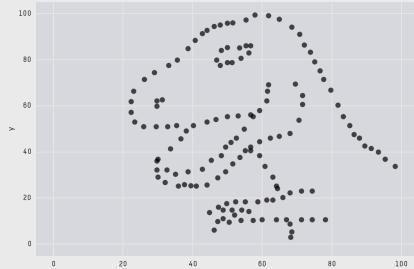








Anscombosaurus (HT Alberto Cairo)



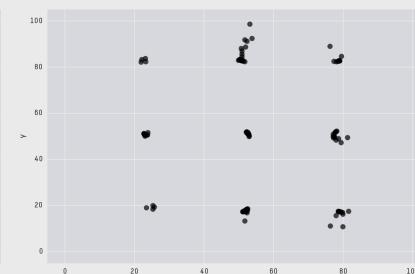
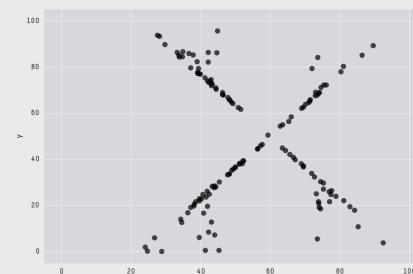
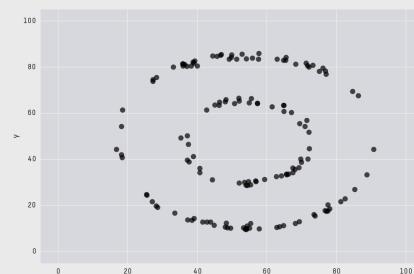
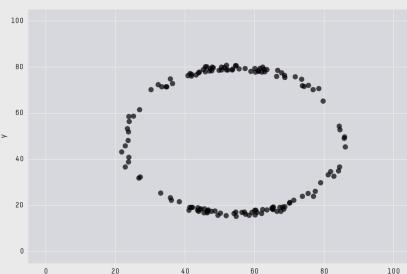
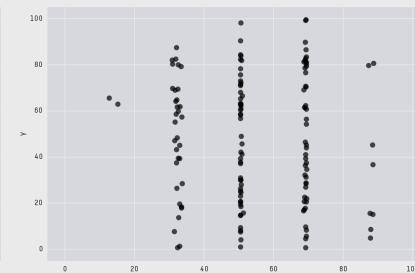
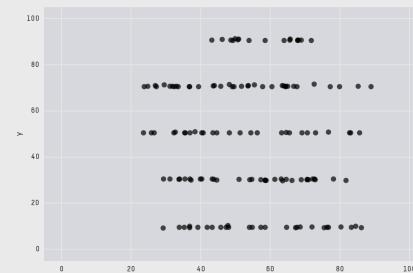
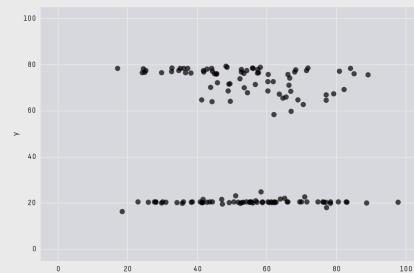
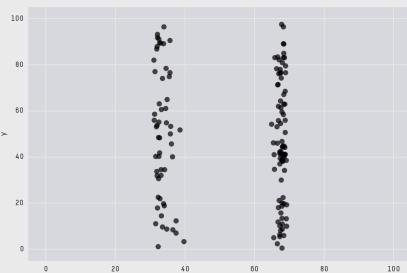
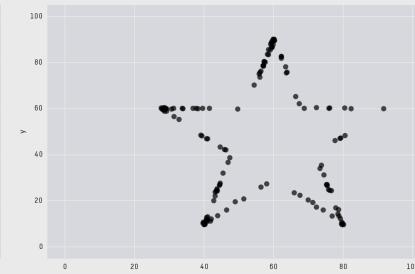
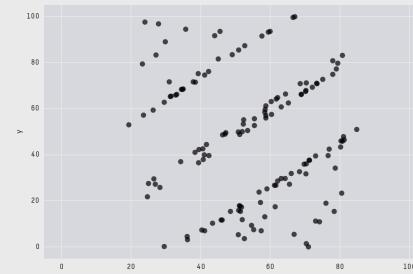
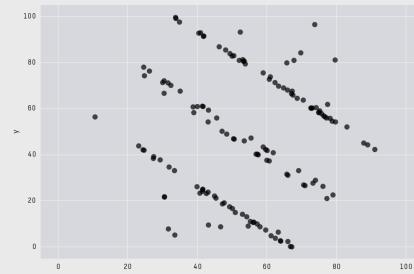
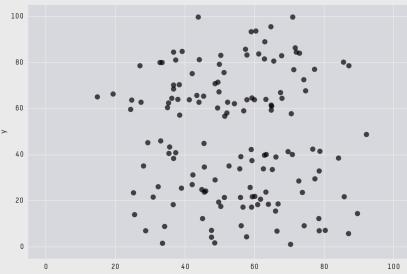
X Mean: 54.26

Y Mean: 47.83

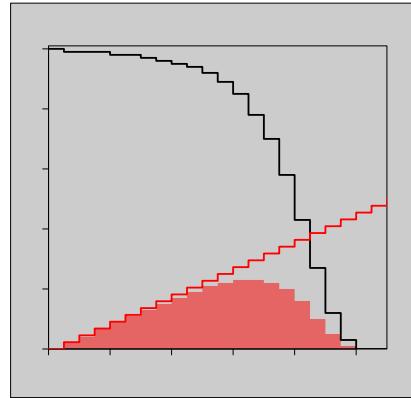
X SD : 16.76

Y SD : 26.93

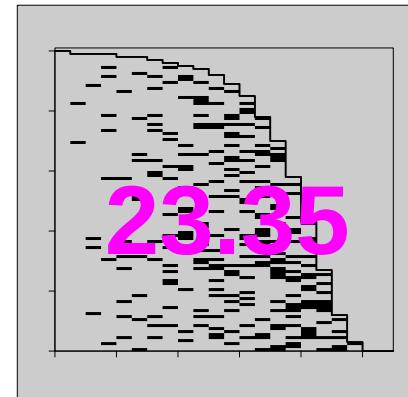
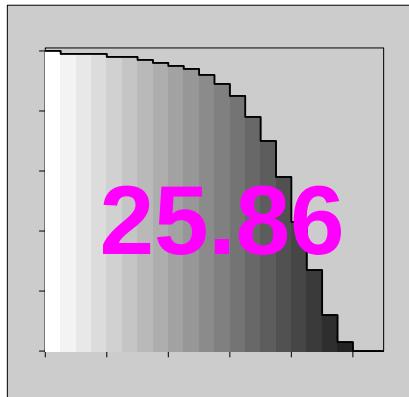
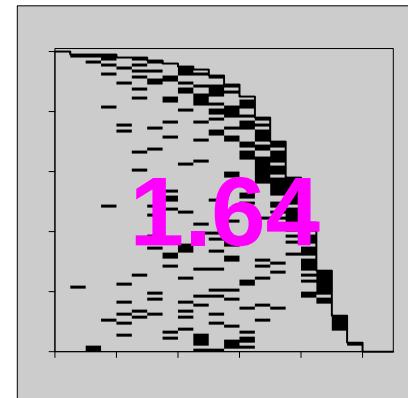
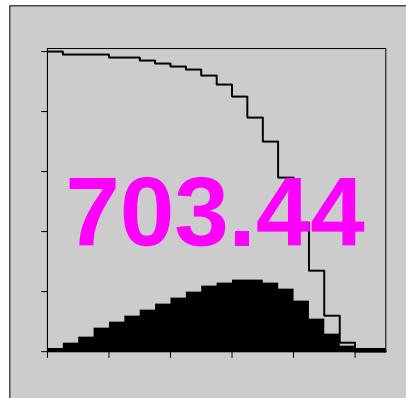
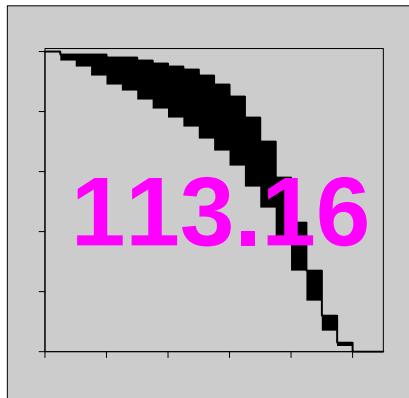
Corr. : -0.06



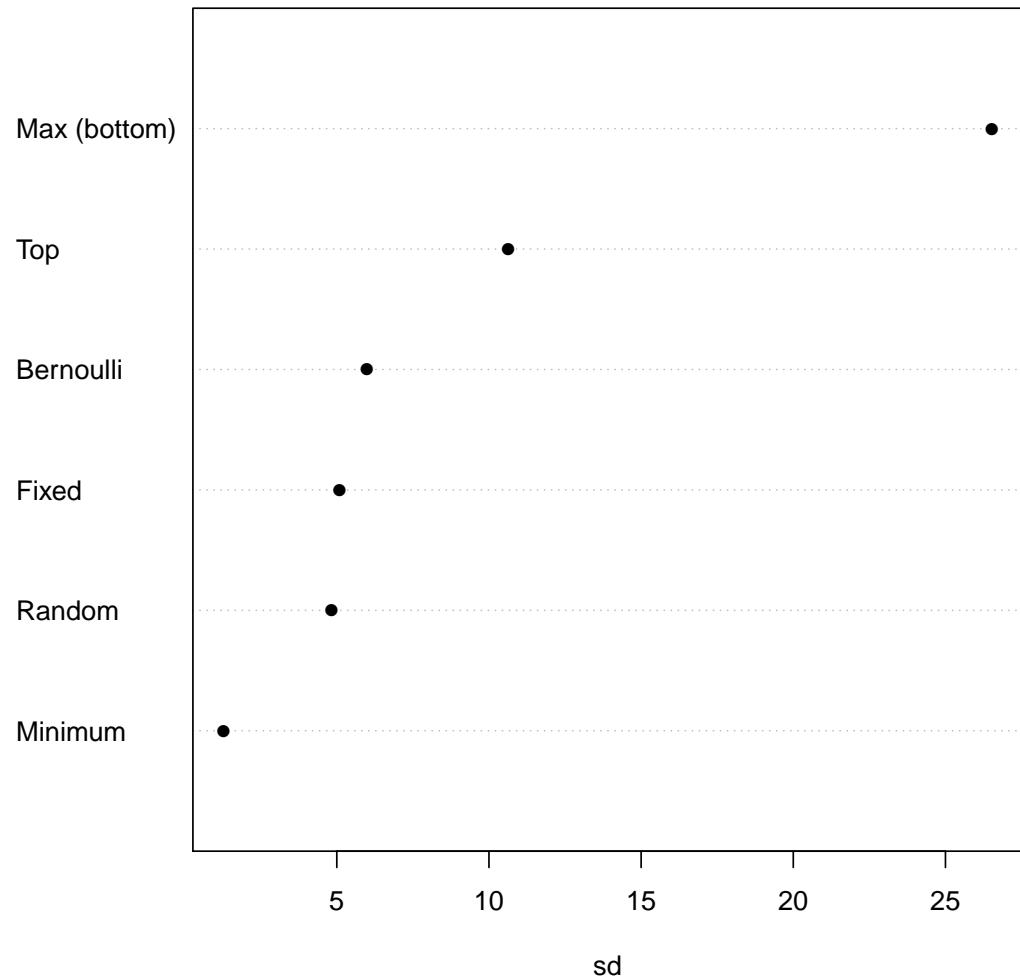
Sullivans Sextet



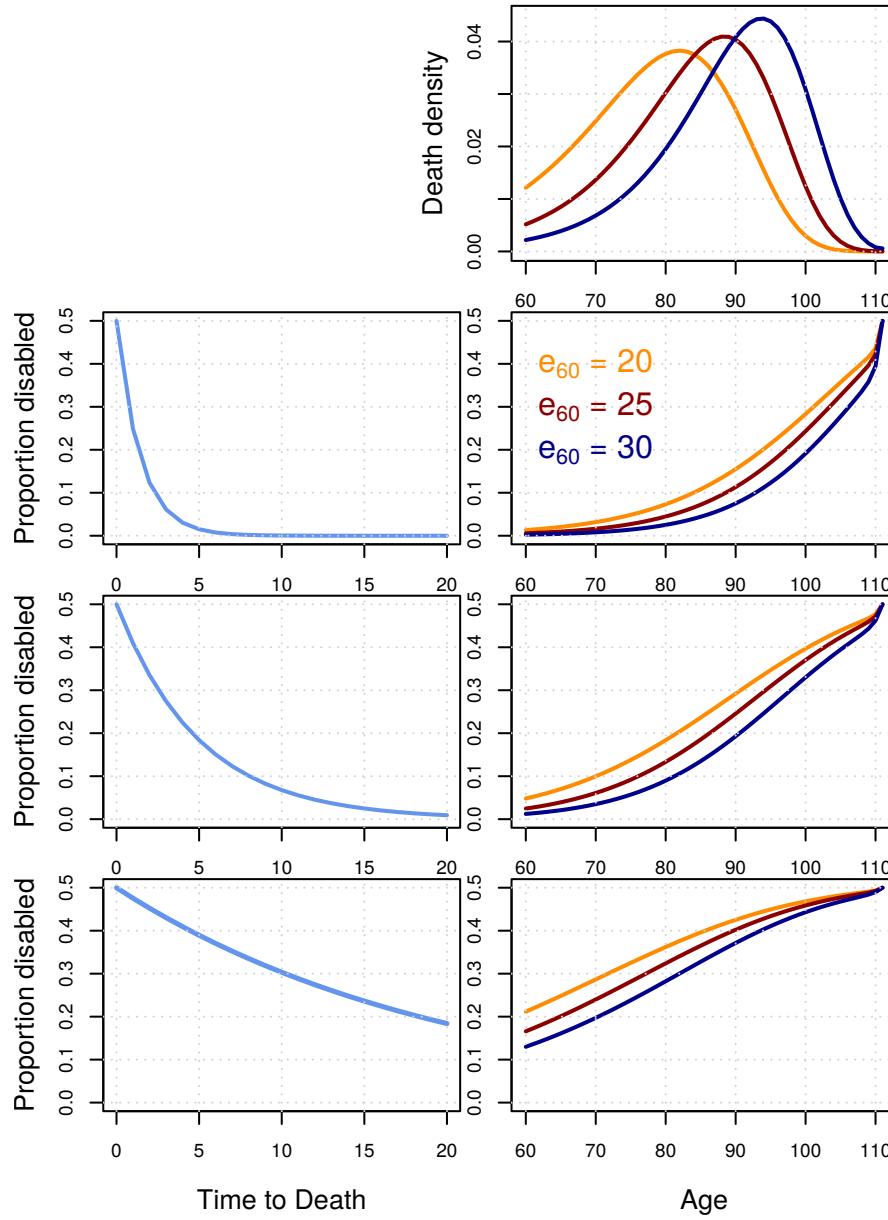
LE: 74.15
DLE: 13.13
VAR: ???



Prevalence scenarios







Thanks to:
Doug Wolf, Jennifer Karaz Montez,
Hal Caswell, Virginia Zarulli, Alyson
van Raalte

Thanks to:
Doug Wolf, Jennifer Karaz Montez,
Hal Caswell, Virginia Zarulli, Alyson
van Raalte

And to you for any comments!
riffe@demogr.mpg.de