

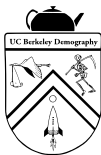
Life lost, lifesaving, and causes of death — Ghost demography —

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Mortality measurement

Years Lost

Riffe & Solé

All-cause

Causes

Comparisons

Rates

Conclusions

lifetable: purged of structure

counts: structure \times intensity

combo: Person Years of Life Lost (PYLL), _____, ...

PYLL

Years Lost

Riffe & Solé

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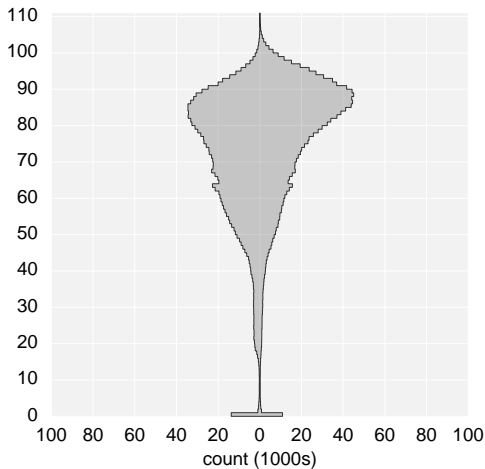
Person years of life lost

$$\text{PYLL} = \int_0^{\omega} D(a) \cdot e(a) \, da \quad (1)$$

$$\text{PYLL}^c = \int_0^{\omega} D^c(a) \cdot e(a) \, da \quad (2)$$

PYLL & friends

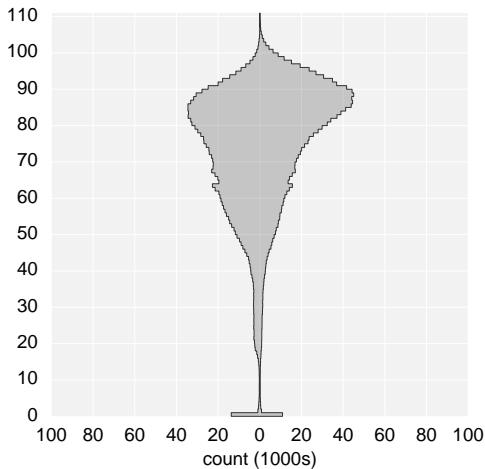
Chrono Age



$D(a)$ (USA, 2010)

PYLL & friends

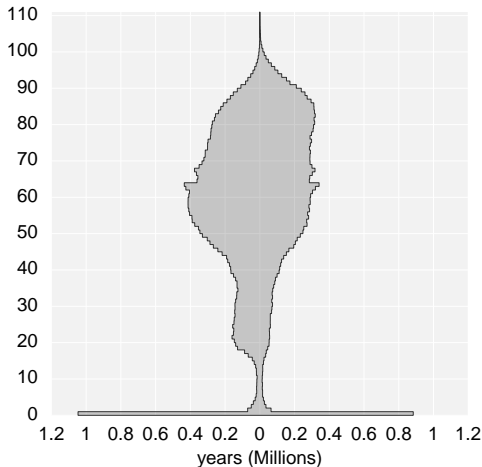
Chrono Age



$D(a)$ (USA, 2010)

PYLL & friends

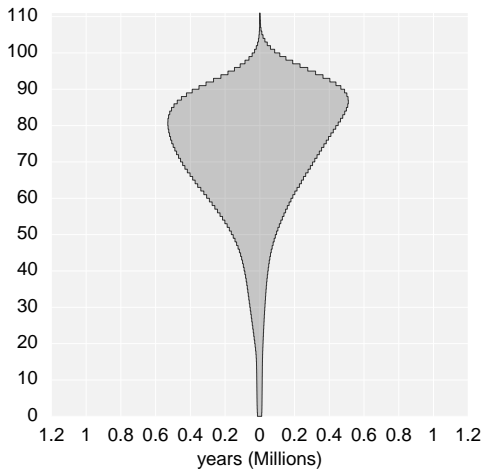
Chrono Age



$PYLL(a)$ (USA, 2010)

PYLL & friends

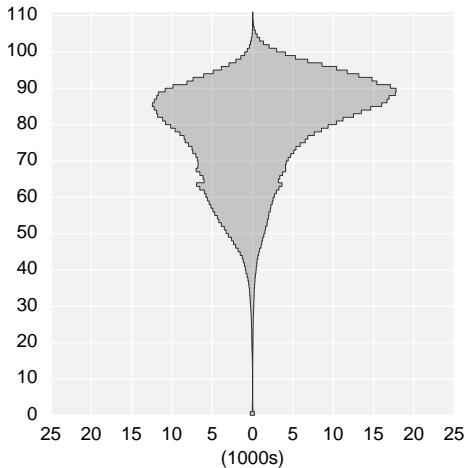
Chrono Age



$G(a)$ (USA, 2010)

PYLL & friends, causes of death

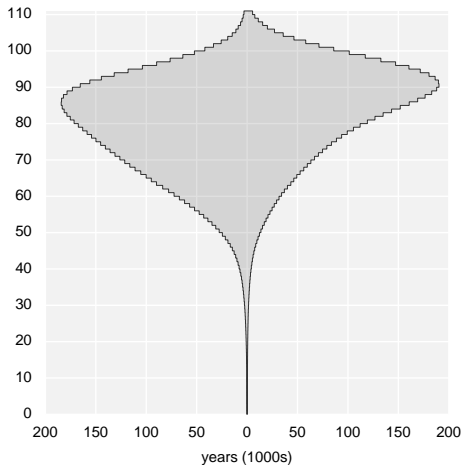
Chrono Age



$D(a)$ Cardio (USA, 2010)

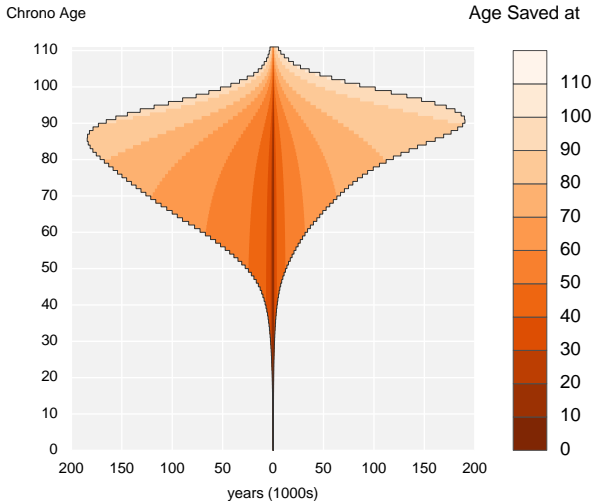
PYLL & friends

Chrono Age



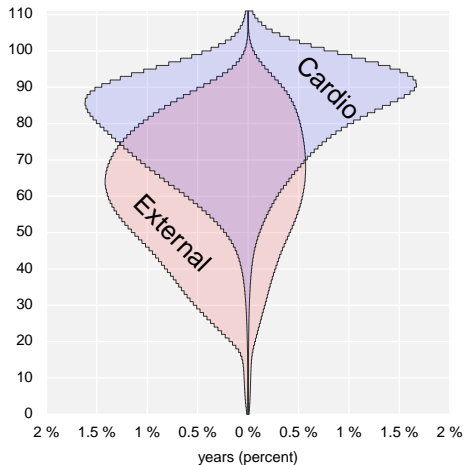
$G(a)$ Cardio (USA, 2010)

PYLL & friends, decompose



PYLL & friends, compare causes

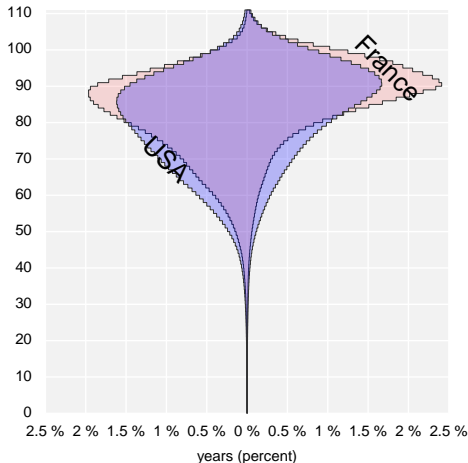
Chrono Age



$G(a)$ Cardio vs External (USA, 2010)

PYLL & friends, compare populations

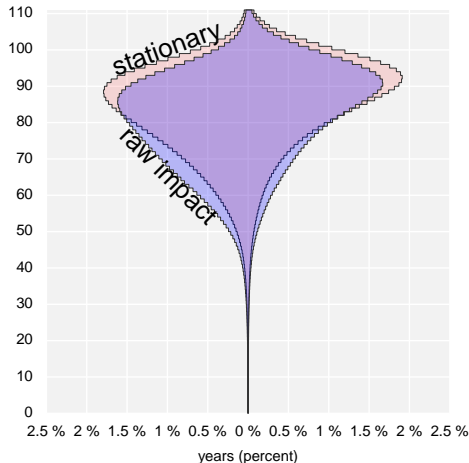
Chrono Age



$G(a)$ Cardio (USA vs France, 2010)

PYLL & friends, compare with stationary

Chrono Age



G(a) Cardio (Raw impact versus stationary, USA, 2010)

PYLL & friends, summaries

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\bar{A} mean chrono age of G

\bar{Y} mean thanatological age of G

PYLL & friends, rates

Years Lost

Riffe & Solé

All-cause

Causes

Comparisons

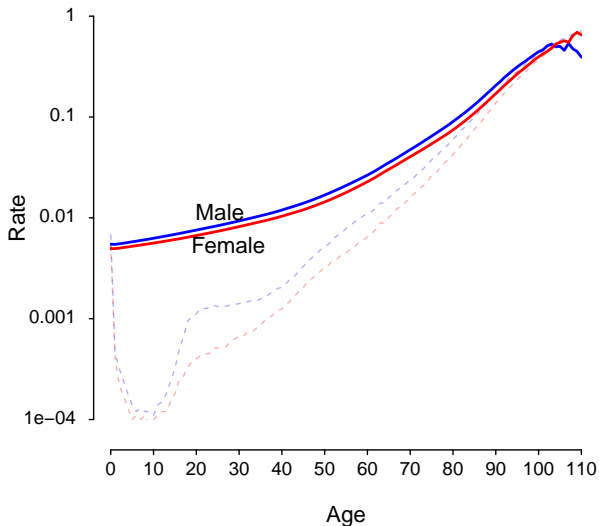
Rates

Conclusions

$$\mu^G(a) = \frac{G(a)}{PF(a)} \quad (3)$$

The lives that **would** have passed through age a divided by the lives that **will** pass through $G(a)$.

PYLL & friends, rates



$G(a)$ (male and female, USA, 2010)

PYLL & friends, new material

Years Lost

Riffe & Solé

All-cause

Causes

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Rates

Conclusions

Counts, years, rates, impacts

Life lost, lifesaving, and causes of death

Tim Riffe¹ & Aïda Solé Auró²

Thank you!

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