

Health Expectancy

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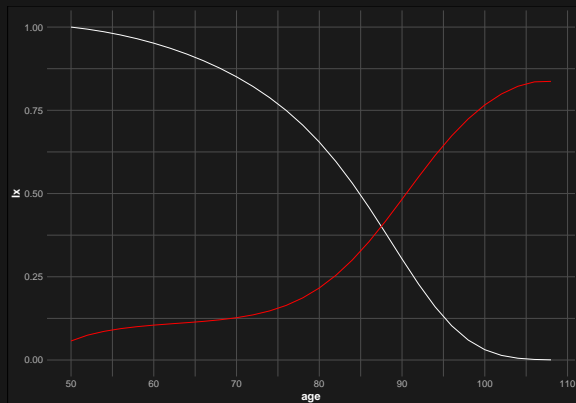
Average number of years lived in good health

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Summary index of an underlying distribution

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What's health anyway?

Average number of years lived in good health
Summary index of an underlying distribution
What's health anyway?
model as a stock or a process?

- ▶ Sullivan
- ▶ Multistate

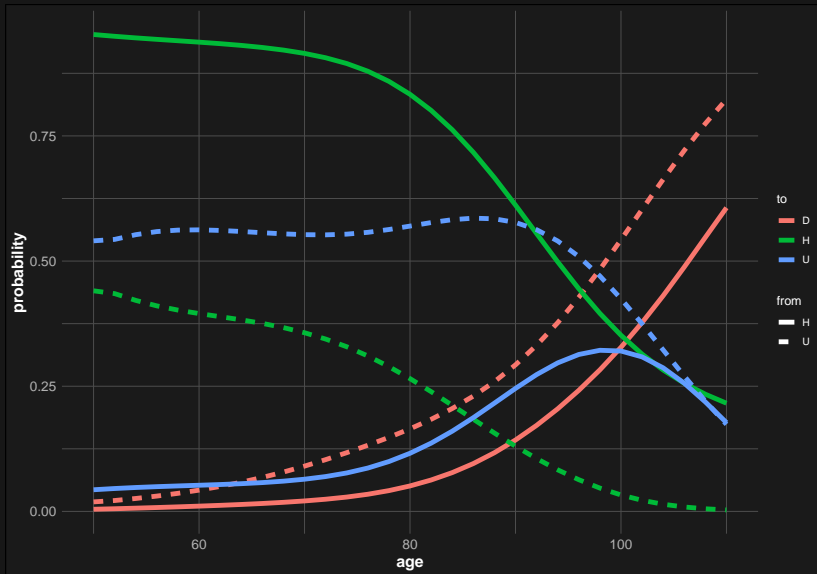


- ▶ $HLE(x) = \int I(x)\pi(x)dx$
- ▶ List properties & biases (5 min)

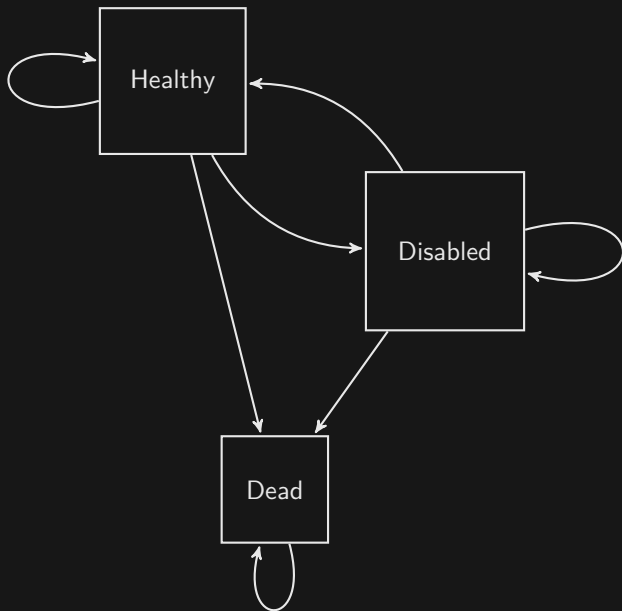
<https://temery86.github.io/FullHistory/>



Multistate



State space-diagrams



Properties



Variants

- ▶ Discrete
 - ▶ Matrix algebra *
 - ▶ Lifetable *
 - ▶ Simulation *
- ▶ Continuous
 - ▶ Matrix algebra
 - ▶ Differential equations

<https://jamboard.google.com/d/1UJKc7ULzstKyAfGL3cbUkRsHZ86uQUvrLISYdFMA-GA/edit?usp=sharing>

Considerations

- ▶ Initial conditions?
- ▶ Mid-interval approximations?
- ▶ Strata or state?
- ▶ Memoryless?
- ▶ Rate fluctuations?
- ▶ Health comparability?

Equivalencies

- ▶ Cohorts
- ▶ Stationary populations

Further training

- ▶ Jutta Gampe Multistate course possible late May (check PHDS website in March)
- ▶ Hal Caswell matrix pop course will eventually return
- ▶ REVES meetings have workshops

Special conferences

- ▶ IAPHS <https://iaphs.org/>
- ▶ REVES https://reves.site.ined.fr/en/home/about_reves/

Local technical resources




















- ▶ Transition probs: J. Gampe, A. Carollo, D. Schneider, A. Lorenti, C. Dudel
- ▶ Markov measures: C. Dudel, me, C. Bohk-Ewald

Related things that I work on

- ▶ Within-inequality in Sullivan setting
- ▶ Decomposition of discrete multistate
- ▶ Other within-lifecourse duration measures
- ▶ Time perspectives on compression and ageing

Break, then we code!

HOW LONG CAN YOU WORK ON MAKING A ROUTINE TASK MORE EFFICIENT BEFORE YOU'RE SPENDING MORE TIME THAN YOU SAVE?
(ACROSS FIVE YEARS)

		HOW OFTEN YOU DO THE TASK					
		50/DAY	5/DAY	DAILY	WEEKLY	MONTHLY	YEARLY
HOW MUCH TIME YOU SHAVE OFF	1 SECOND	 DAY	2 HOURS	30 MINUTES	4 MINUTES	1 MINUTE	5 SECONDS
	5 SECONDS	 DAYS	12 HOURS	2 HOURS	21 MINUTES	5 MINUTES	25 SECONDS
	30 SECONDS	 4 WEEKS	 DAYS	12 HOURS	2 HOURS	30 MINUTES	2 MINUTES
	1 MINUTE	 8 WEEKS	 DAYS	 DAY	4 HOURS	1 HOUR	5 MINUTES
	5 MINUTES	9 MONTHS	 4 WEEKS	 DAYS	21 HOURS	5 HOURS	25 MINUTES
	30 MINUTES		6 MONTHS	 5 WEEKS	 DAYS	 DAY	2 HOURS
	1 HOUR		10 MONTHS	2 MONTHS	 DAYS	 DAYS	5 HOURS
	6 HOURS				2 MONTHS	 2 WEEKS	 DAY
	 DAY					 8 WEEKS	 DAYS