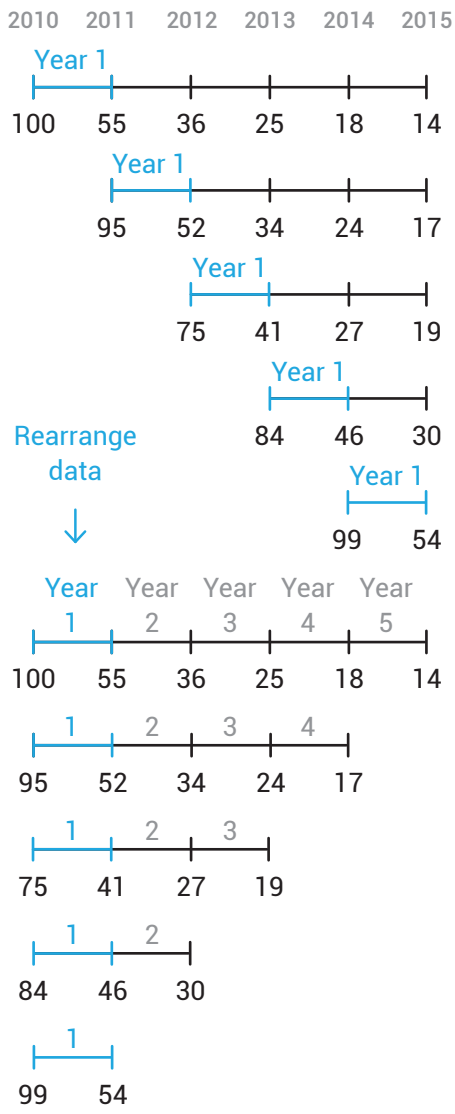
Ways to express prognosis—life-tables



Year of treatment	Number of patients	Year 1	Year 2	Year 3	Year 4	Year 5
2010	100	55	36	25	18	14
2011	95	52	34	24	17	
2012	75	41	27	19		
2013	84	46	30			
2014	99	54				
Sum	**453**	**248**	**127**	**68**	**35**	**14**

$$P_1 = \frac{248}{453} = 0.55$$

$$P_2 = \frac{127}{248 - 54} = 0.65$$

$$P_3 = \frac{68}{127 - 30} = 0.7$$

$$P_4 = \frac{35}{68 - 19} = 0.7$$

$$P_5 = \frac{14}{35 - 17} = 0.8$$

Probability of surviving to the end of each year.

Probability of surviving year 1	P1	0.55	**0.55**
		0.55 x 0.65 =	
Probability of surviving year 2	P2	0.65	**0.36**
		0.55 x 0.65 x 0.7 =	
Probability of surviving year 3	P3	0.7	**0.25**
		0.55 x 0.65 x 0.7 x 0.7 =	
Probability of surviving year 4	P4	0.7	**0.18**
		0.55 x 0.65 x 0.7 x 0.7 x 0.8 =	
Probability of surviving year 5	P5	0.8	**0.14**