

WAERS: Web-Assisted Estimation of the Relative Survival

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WAERS Spanish Provinces and Autonomous communities:

Mortality from different areas of Spain (provinces, autonomous communities and whole Spain) are available to use as reference for relative survival. We are working on improvements of this version.

WAERS: European and American countries, Australia, New Zealand and Japan

Mortality from several countries is currently available: Argentina, Austria, Belgium, Bulgaria, Canada, Cuba, Czech Republic, Denmark, England&Wales, Finland, France, Germany, Hungary, Iceland, Italy, Japan, Latvia, Lithuania, Netherlands, New Zealand, Norway, Russia, Slovakia, Slovenia, Spain, Sweden, Switzerland & USA. We are working on improvements of this version.

[WAERS Example \(PDF\)](#)

PARAMETERS TO INTRODUCE IN WAERS

Mortality of the reference population (Spain, Province or Autonomous Community):
Spain **1**

Warning: file size must be less than 10MB.

Data file:
Seleccionar archivo **2** en archivo seleccionado

Confidence value: **3**

4

1 Select reference population

2 Upload a Data file:

	A	B	C	D	E	F	G
1	Follow_up	Vital_status	Age	Sex.num	Year_DoI	Sex	Site
2	4.18035592	1	86	1	2004	Men	Blader
3	3.18035592	1	68	2	2004	Women	Breast
4	9.61618754	0	68	1	2004	Men	Blader
5	9.9017796	0	72	2	2004	Women	Breast
6	0.88381246	1	69	1	2003	Men	Blader
7	1.22535934	1	77	1	2003	Men	Blader
8	6.41119097	1	73	1	2003	Men	Prostate
9	10.5328542	0	80	1	2003	Men	Prostate
10	4.93035592	1	81	2	2003	Women	Blader
11	10.323922	0	65	1	2003	Men	Prostate
12	0.61618754	1	61	1	2003	Men	Blader
13	0.58880904	1	89	1	2003	Men	Blader

Data file must be ASCII type, ";" separated and unquoted values (i.e: ".txt" or ".csv" files).

Optional stratification variables

3 Introduce confidence value (usually 0.95)

4 Press "Send data"

WAERS RESULTS (I): Table

	A	B	C	D	E	F	G	H	I	J
1	nRisk	time	RS	LCI.RS	UCI.RS	OS	LCI.OS	UCI.OS	ES	strata
2	578	0	0.998	0.995	1	0.998	0.995	1	1	Sex: Men
3	431	1	0.778	0.742	0.816	0.747	0.712	0.783	0.959	Sex: Men
4	366	2	0.689	0.648	0.733	0.634	0.596	0.674	0.92	Sex: Men
5	332	3	0.653	0.609	0.7	0.575	0.536	0.617	0.88	Sex: Men
6	304	4	0.624	0.577	0.674	0.526	0.487	0.569	0.844	Sex: Men
7	275	5	0.593	0.544	0.646	0.476	0.437	0.518	0.802	Sex: Men
8	249	6	0.561	0.511	0.616	0.431	0.392	0.473	0.768	Sex: Men
9	177	7	0.538	0.486	0.596	0.394	0.356	0.436	0.732	Sex: Men
10	132	8	0.527	0.472	0.588	0.367	0.329	0.41	0.697	Sex: Men
11	84	9	0.514	0.455	0.581	0.341	0.302	0.386	0.664	Sex: Men
12	41	10	0.506	0.441	0.581	0.32	0.279	0.368	0.632	Sex: Men
13	1	11	0.504	0.42	0.604	0.301	0.251	0.362	0.598	Sex: Men
14	271	0	1	1	1	1	1	1	1	Sex: Women
15	236	1	0.894	0.855	0.935	0.877	0.839	0.917	0.981	Sex: Women
16	223	2	0.86	0.815	0.908	0.829	0.785	0.875	0.963	Sex: Women
17	215	3	0.843	0.794	0.895	0.799	0.752	0.848	0.948	Sex: Women
18	201	4	0.8	0.746	0.858	0.747	0.696	0.801	0.933	Sex: Women
19	194	5	0.785	0.728	0.845	0.721	0.669	0.776	0.919	Sex: Women
20	183	6	0.752	0.693	0.817	0.68	0.626	0.738	0.903	Sex: Women
21	141	7	0.752	0.691	0.819	0.667	0.613	0.726	0.887	Sex: Women
22	98	8	0.715	0.649	0.788	0.624	0.566	0.687	0.872	Sex: Women
23	58	9	0.701	0.631	0.779	0.601	0.541	0.668	0.857	Sex: Women
24	29	10	0.666	0.581	0.764	0.558	0.487	0.64	0.838	Sex: Women
25	1	11	0.654	0.556	0.769	0.534	0.454	0.628	0.817	Sex: Women
26	116	0	1	1	1	1	1	1	1	Site: Blader
27	90	1	0.808	0.732	0.892	0.774	0.701	0.854	0.958	Site: Blader
28	79	2	0.74	0.653	0.84	0.679	0.598	0.769	0.917	Site: Blader
29	72	3	0.705	0.61	0.814	0.618	0.535	0.713	0.877	Site: Blader
30	64	4	0.655	0.555	0.773	0.548	0.464	0.647	0.837	Site: Blader
31	56	5	0.599	0.495	0.725	0.478	0.395	0.579	0.798	Site: Blader
32	49	6	0.549	0.443	0.682	0.418	0.336	0.518	0.76	Site: Blader
33	32	7	0.494	0.386	0.632	0.36	0.281	0.461	0.729	Site: Blader
34	25	8	0.524	0.41	0.671	0.36	0.281	0.461	0.686	Site: Blader
35	19	9	0.546	0.426	0.699	0.36	0.281	0.461	0.659	Site: Blader

The output table will have the following variables:

nRisk: Number of individuals at risk for each time-point

time: Time in years for which survival is computed

RS: Relative survival

LCI.RS: Lower confidence interval for relative survival

UCI.RS: Upper confidence interval for relative survival

OS: Observed survival

LCI.OS: Lower confidence interval for observed survival

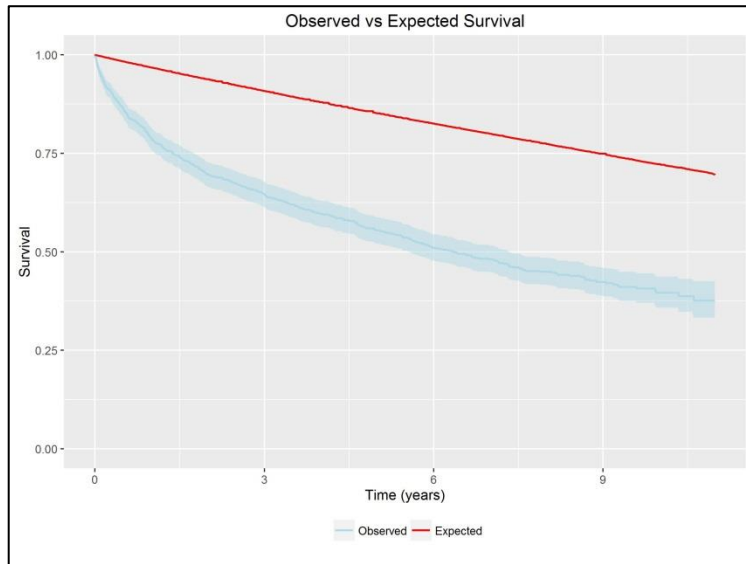
UCI.OS: Upper confidence interval for observed survival

ES: Expected survival

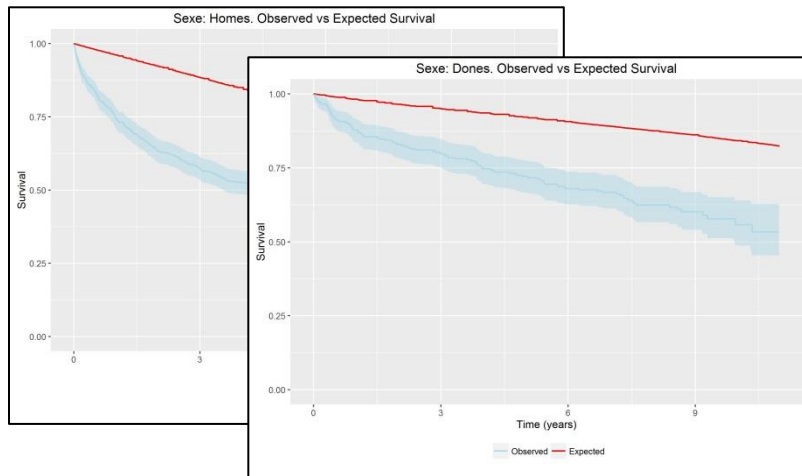
Strata: combination of variable name and strata for each stratification variable and also for all individuals in data the data file (overall)

The format for the output table will be “csv” separated by “;” which allows the user to export it in virtually any processing program for data manipulation

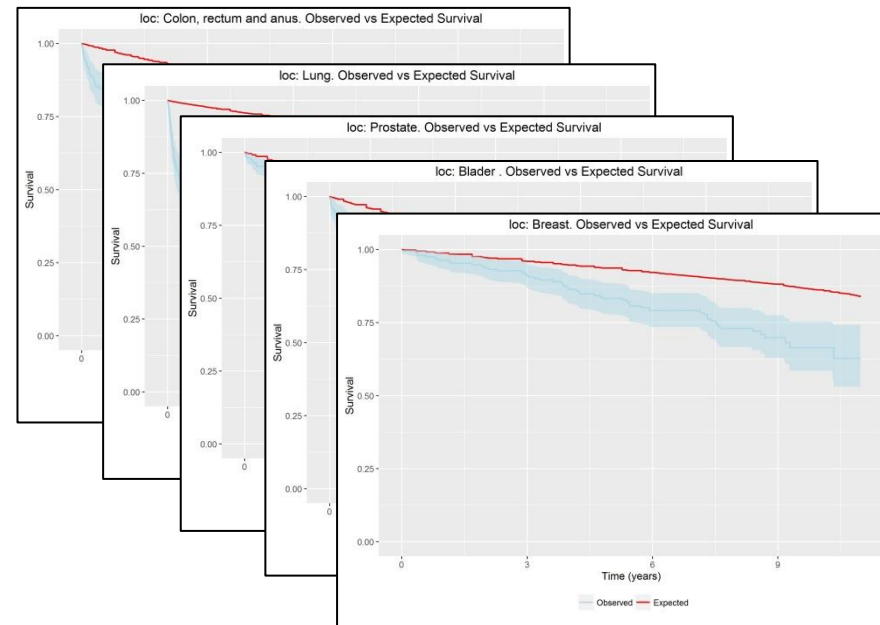
WAERS RESULTS (II): Observed vs. expected survival plot



A different “observed vs. expected” survival plot is generated for each strata from each stratification variable and also for all individuals in data the data file (overall)



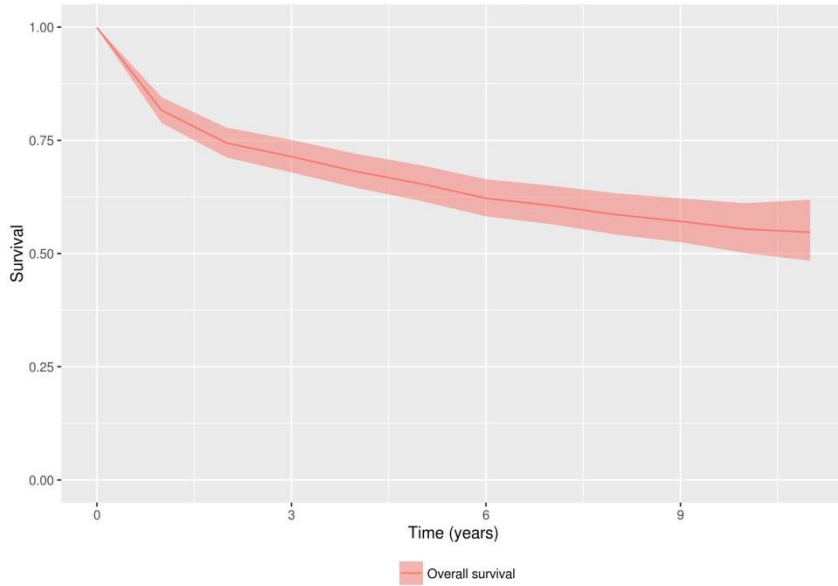
In this case for all categories in variable “Sex”



In this example, for all categories in variable “Site”

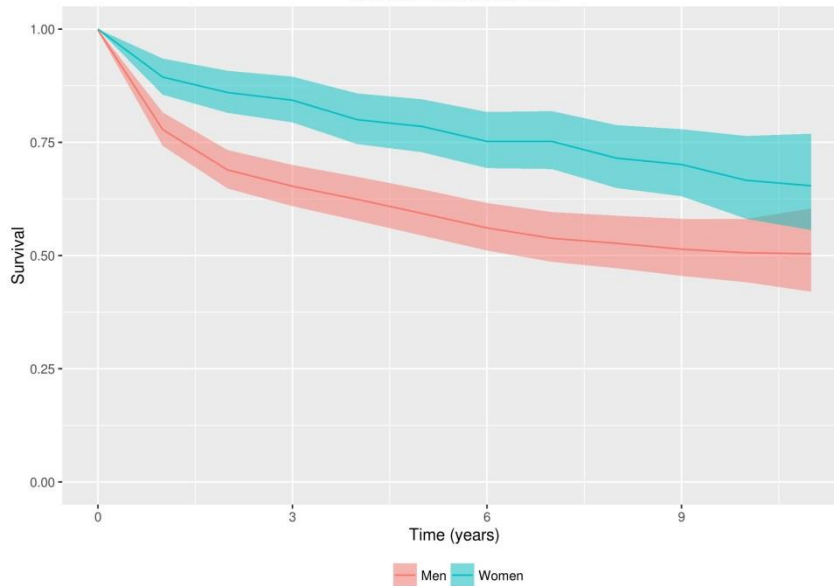
WAERS RESULTS (III): Relative survival plot

Relative survival for All patients



The “relative survival” plot and its confidence interval is plotted for each stratification variable and also for all individuals.

Relative survival for Sex



Relative survival for Site

