Obs	id	admitdate	foldate	los	lenfol	fstat	age	gender	bmi	time_yrs
1	1	03/13/19	03/19/19	4	6	1	65	0	31.3813	0.01643
2	2	01/14/19	01/23/19	5	374	1	88	1	22.6579	1.02396
3	3	02/17/19	10/04/20	5	2421	1	77	0	27.8789	6.62834
4	4	04/07/19	07/14/19	9	98	1	81	1	21.4788	0.26831
5	5	02/09/19	05/29/19	4	1205	1	78	0	30.7060	3.29911

The LIFEREG Procedure

Model Information	
Data Set	SURVIVAL.WHAS100
Dependent Variable	Log(time_yrs)
Censoring Variable	fstat
Censoring Value(s)	0
Number of Observations	100
Noncensored Values	51
Right Censored Values	49
Left Censored Values	0
Interval Censored Values	0
Number of Parameters	1
Name of Distribution	Exponential
Log Likelihood	-147.334973

Number of Observations Read	100
Number of Observations Used	100

Fit Statistics	
-2 Log Likelihood	294.670
AIC (smaller is better)	296.670
AICC (smaller is better)	296.711
BIC (smaller is better)	299.275

Fit Statistics (Unlogged Response)	
-2 Log Likelihood	315.137
Exponential AIC (smaller is better)	317.137
Exponential AICC (smaller is better)	317.178
Exponential BIC (smaller is better)	319.742

Algorithm converged.

The LIFEREG Procedure

Analysis of Maximum Likelihood Parameter Estimates							
Parameter	DF	Estimate	Standard Error	95% Confidence Limits		Chi-Square	Pr > ChiSq
Intercept	1	2.0896	0.1400	1.8151	2.3640	222.68	<.0001
Scale	0	1.0000	0.0000	1.0000	1.0000		
Weibull Scale	1	8.0815	1.1316	6.1419	10.6337		
Weibull Shape	0	1.0000	0.0000	1.0000	1.0000		

Lagrange Multiplier Statistics		
Parameter	Chi-Square	Pr > ChiSq
Scale	4.6314	0.0314

Obs	time_yrs	LAMBDA_exp	S_exp	model
1	0.01643	0.002033	0.99797	exp
2	0.01643	0.002033	0.99797	exp
3	0.03833	0.004743	0.99527	exp
4	0.12047	0.014906	0.98520	exp
5	0.16975	0.021004	0.97921	exp
6	0.24367	0.030151	0.97030	exp
7	0.26831	0.033200	0.96734	exp
8	0.28474	0.035233	0.96538	exp
9	0.29295	0.036250	0.96440	exp
10	0.31211	0.038621	0.96212	exp

The LIFEREG Procedure

Model Information	
Data Set	SURVIVAL.WHAS100
Dependent Variable	Log(time_yrs)
Censoring Variable	fstat
Censoring Value(s)	0
Number of Observations	100
Noncensored Values	51
Right Censored Values	49
Left Censored Values	0
Interval Censored Values	0
Number of Parameters	2
Name of Distribution	Weibull
Log Likelihood	-144.0876166

Number of Observations Read	100
Number of Observations Used	100

Fit Statistics	
-2 Log Likelihood	288.175
AIC (smaller is better)	292.175
AICC (smaller is better)	292.299
BIC (smaller is better)	297.386

| Fit Statistics (Unlogged Response)	
-2 Log Likelihood	308.642
Weibull AIC (smaller is better)	312.642
Weibull AICC (smaller is better)	312.766
Weibull BIC (smaller is better)	317.852

Algorithm converged.

The LIFEREG Procedure

Analysis of Maximum Likelihood Parameter Estimates						
Parameter	DF	Estimate	Standard Error	95% Confidence Limits		Chi-Square	Pr > ChiSq
Intercept	1	2.2676	0.2117	1.8528	2.6825	114.79	<.0001
Scale	1	1.3655	0.1767	1.0596	1.7596		
Weibull Scale	1	9.6566	2.0438	6.3777	14.6211		
Weibull Shape	1	0.7323	0.0947	0.5683	0.9437		

Obs	time_yrs	LAMBDA_weib	S_weib	model
1	0.01643	0.009374	0.99067	weib
2	0.01643	0.009374	0.99067	weib
3	0.03833	0.017435	0.98272	weib
4	0.12047	0.040331	0.96047	weib
5	0.16975	0.051846	0.94947	weib
6	0.24367	0.067561	0.93467	weib
7	0.26831	0.072499	0.93007	weib
8	0.28474	0.075724	0.92707	weib
9	0.29295	0.077318	0.92560	weib
10	0.31211	0.080990	0.92220	weib

The LIFETEST Procedure

Product-Limit Survival Estimate
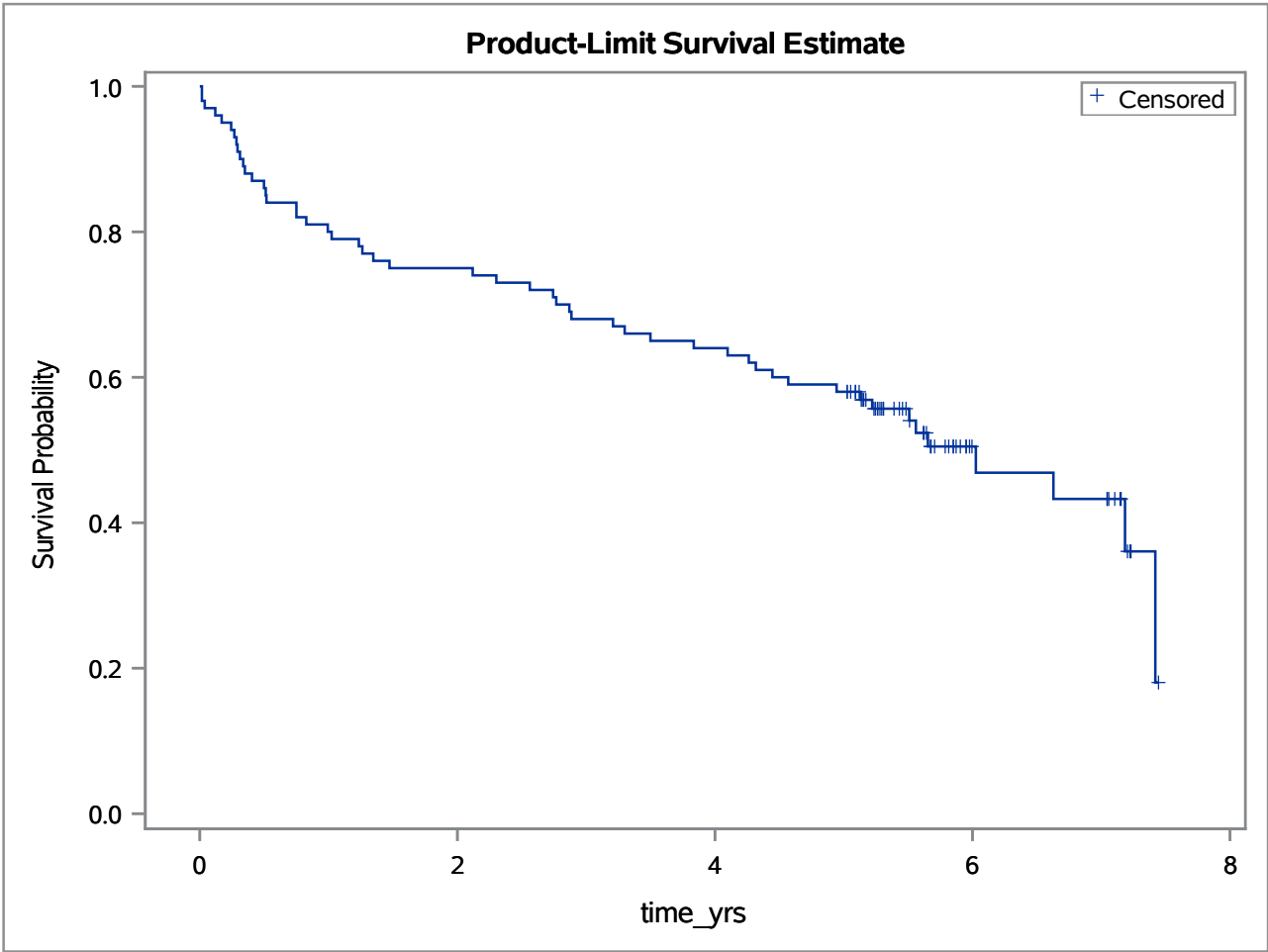
Summary of the Number of Censored and Uncensored Values			
Total	**Failed**	**Censored**	**Percent Censored**
100	51	49	49.00

Obs	time_yrs	S_km	LAMBDA_km	model
1	0.00000	1.00	0.00000	km
2	0.01643	0.98	0.02020	km
3	0.03833	0.97	0.03046	km
4	0.12047	0.96	0.04082	km
5	0.16975	0.95	0.05129	km
6	0.24367	0.94	0.06188	km
7	0.26831	0.93	0.07257	km
8	0.28474	0.92	0.08338	km
9	0.29295	0.91	0.09431	km
10	0.31211	0.90	0.10536	km
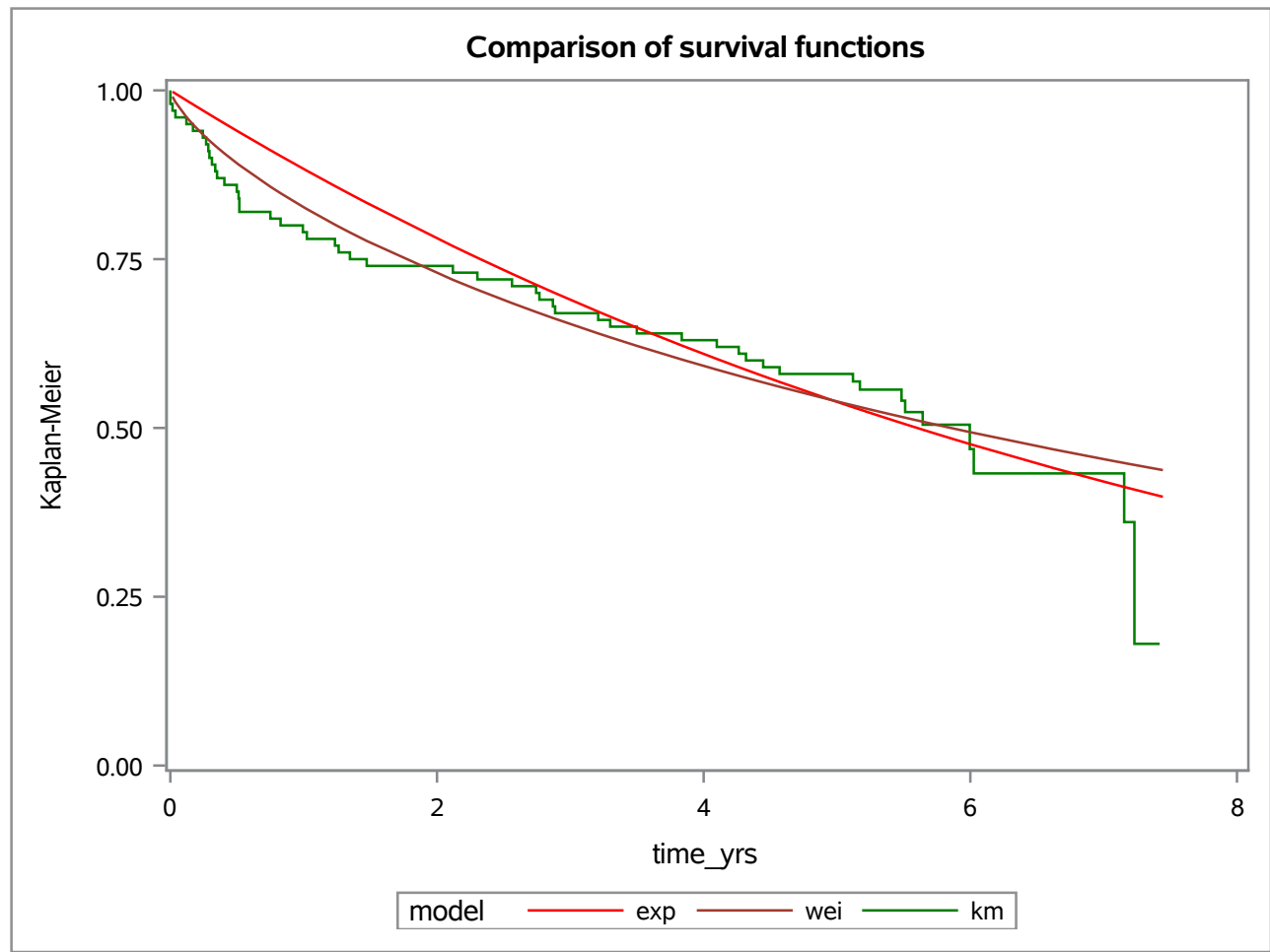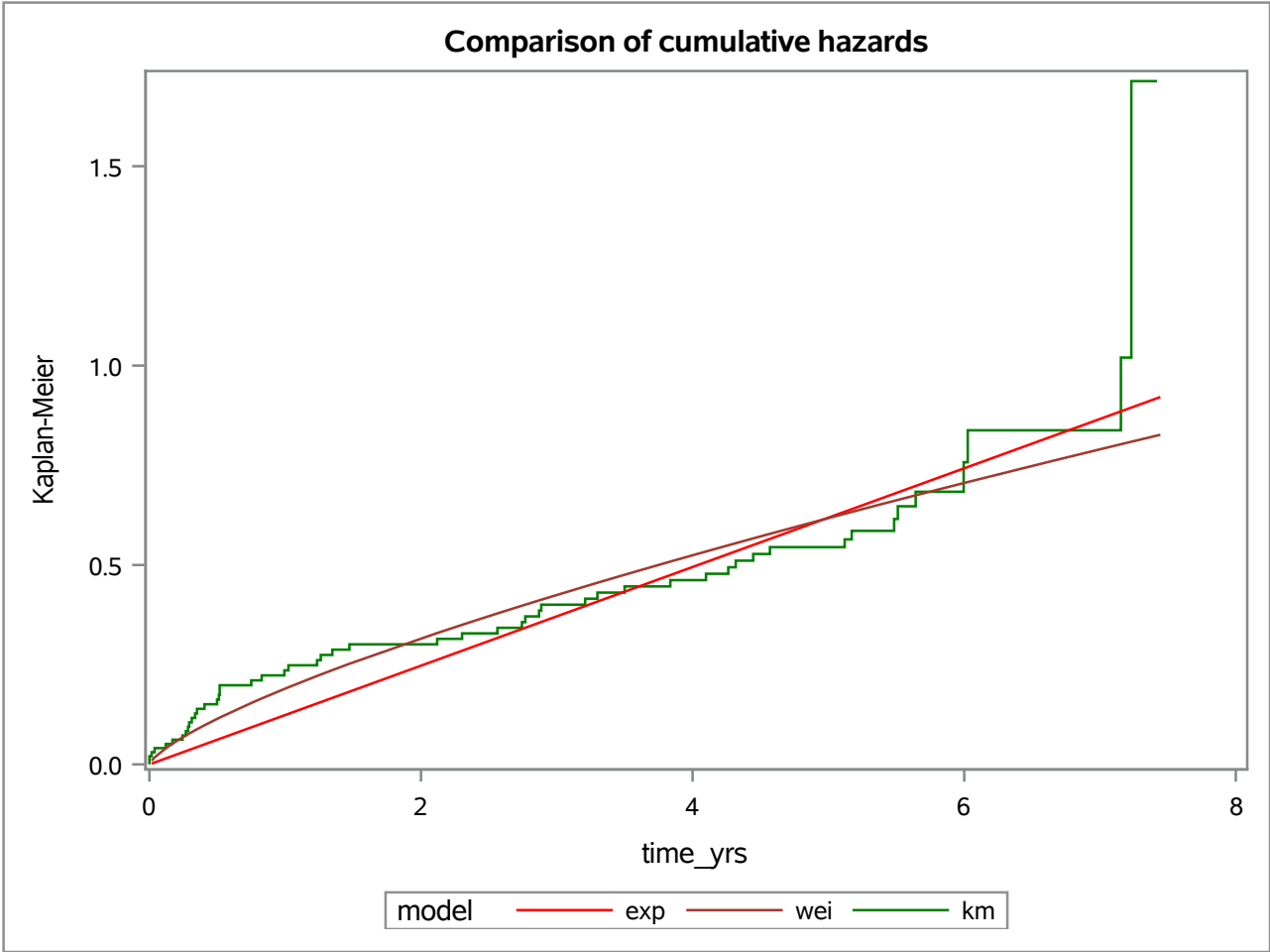
Comparison of survival functions

Comparison of cumulative hazards

Weibull model with covariates and interaction

The LIFEREG Procedure

Model Information	
Data Set	WORK.CENTER
Dependent Variable	Log(time_yrs)
Censoring Variable	fstat
Censoring Value(s)	0
Number of Observations	100
Noncensored Values	51
Right Censored Values	49
Left Censored Values	0
Interval Censored Values	0
Number of Parameters	6
Name of Distribution	Weibull
Log Likelihood	-131.4099023

Number of Observations Read	100
Number of Observations Used	100

Fit Statistics	
-2 Log Likelihood	262.820
AIC (smaller is better)	274.820
AICC (smaller is better)	275.723
BIC (smaller is better)	290.451

Fit Statistics (Unlogged Response)	
-2 Log Likelihood	283.287
Weibull AIC (smaller is better)	295.287
Weibull AICC (smaller is better)	296.190
Weibull BIC (smaller is better)	310.918

Algorithm converged.

Weibull model with covariates and interaction

The LIFEREG Procedure

Type III Analysis of Effects			
Effect	DF	Wald Chi-Square	Pr > ChiSq
gender	1	2.6596	0.1029
age_c	1	9.6083	0.0019
bmi_c	1	5.1540	0.0232
gender*age_c	1	3.7810	0.0518

Analysis of Maximum Likelihood Parameter Estimates							
Parameter	DF	Estimate	Standard Error	95% Confidence Limits		Chi-Square	Pr > ChiSq
Intercept	1	2.4612	0.2746	1.9230	2.9994	80.33	<.0001
gender	1	-0.6522	0.3999	-1.4360	0.1316	2.66	0.1029
age_c	1	-0.0639	0.0206	-0.1044	-0.0235	9.61	0.0019
bmi_c	1	0.1055	0.0465	0.0144	0.1966	5.15	0.0232
gender*age_c	1	0.0592	0.0304	-0.0005	0.1188	3.78	0.0518
Scale	1	1.2529	0.1556	0.9821	1.5982		
Weibull Shape	1	0.7982	0.0991	0.6257	1.0182		