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# Life expectancies for individuals with cerebral palsy (updated)

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## 1. Summary

1.1 This publication is intended to translate the survival probabilities and mortality loadings found within a range of epidemiological studies to implied life expectancy tables in a robust, objective and consistent manner. A summary of these calculations are provided below.

**Table 1.1 - Estimated life expectancy for individuals with cerebral palsy (additional years)**

Age	Australian population	Blair et al (2001) Disability score				Hutton et al (2006)					Westbom et al (2011) GMFCS V	Touyama al (2013) GMFCS V
		1 to 3	4 to 6	7 to 9	10 to 12	Severe ambulation	Severe dexterity	Severe cognitive	Severe visual	Severe all		
0	87.8	85.0	82.7	57.1	26.9	31.3	29.5	27.4	42.8	22.1	29.6	45.5
5	83.3	80.6	79.0	59.3	28.6	33.1	30.6	30.4	43.9	23.2	28.6	46.5
10	78.3	75.9	74.8	59.6	29.6	34.3	31.2	32.6	44.1	24.1	27.3	46.3
15	73.3	71.1	70.3	58.4	30.0	34.8	31.3	33.9	43.6	24.5	25.9	45.3
20	68.4	66.4	65.8	56.3	29.9	34.7	31.0	34.5	42.6	24.7	24.3	43.5
25	63.4	61.6	61.2	53.3	29.1	34.0	30.2	34.1	40.9	24.4	22.5	41.1
30	58.5	56.8	56.5	49.7	27.6	32.6	28.9	33.0	38.7	23.6	20.7	38.2
35	53.6	52.1	51.8	45.7	25.6	30.6	27.2	31.1	36.1	22.3	19.0	35.0
40	48.7	47.3	47.1	41.5	23.3	28.1	24.9	28.6	33.0	20.6	17.2	31.8
45	43.9	42.6	42.4	37.4	20.9	25.3	22.5	25.7	29.7	18.5	15.5	28.6
50	39.1	37.9	37.8	33.3	18.6	22.5	20.0	22.9	26.4	16.5	13.8	25.5
55	34.3	33.3	33.2	29.2	16.3	19.7	17.5	20.1	23.2	14.4	12.1	22.3
60	29.6	28.7	28.6	25.2	14.1	17.0	15.1	17.3	20.0	12.4	10.4	19.3

**Table 1.1 (cont'd) - Estimated life expectancy for individuals with cerebral palsy (additional years)**

Age	Reid et al (2012) Motor severity + n additional impairments						Strauss et al (2014)				Rolls/sits	
	Mild+0	Moderate+0	Severe+0	Severe+1	Severe+2	Severe+3	Cannot lift head Tube fed	By others	Lifts head or chest Tube fed	By others	Tube fed	By others
0	86.7	80.5	71.0	48.4	37.5	28.3	14.7	23.5	23.9	34.4	33.8	53.6
5	82.2	76.5	69.0	46.7	36.5	27.8	15.3	23.7	23.5	33.4	32.9	51.4
10	77.3	72.1	66.2	44.7	35.2	27.1	15.7	23.5	22.8	32.1	31.6	48.8
15	72.4	67.7	63.0	42.6	33.8	26.2	15.9	23.1	22.0	30.7	30.2	46.2
20	67.6	63.2	59.6	40.4	32.3	25.2	15.7	22.4	21.0	29.1	28.6	43.4
25	62.7	58.8	55.8	38.0	30.6	24.1	15.3	21.3	19.8	27.3	26.9	40.4
30	57.9	54.3	51.9	35.4	28.7	22.8	14.3	19.9	18.4	25.3	24.9	37.4
35	53.0	49.8	47.7	32.7	26.6	21.2	13.1	18.2	16.8	23.1	22.8	34.2
40	48.2	45.2	43.5	29.8	24.3	19.4	11.9	16.5	15.3	21.0	20.7	31.1
45	43.4	40.8	39.1	26.8	21.9	17.5	10.7	14.8	13.7	18.9	18.6	28.0
50	38.6	36.3	34.8	23.9	19.4	15.5	9.5	13.2	12.2	16.8	16.6	24.9
55	33.9	31.9	30.6	20.9	17.0	13.6	8.3	11.6	10.7	14.7	14.5	21.9
60	29.3	27.5	26.4	18.0	14.7	11.7	7.1	9.9	9.2	12.7	12.5	18.8

1.2 While these tables may be useful estimating the life expectancy of an individual with cerebral palsy it is crucial to recognise they are average life expectancies, fitted to the cohorts involved in the particular study. No attempt have been made to adjust for improvement in survival rates over the interval of the studies and factors such as comorbidities, access to ongoing care and random outcomes have the ability to greatly affect the actual life expectancy for a particular individual.

## 2. Background

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- 2.1 Cerebral palsy is a diagnostic label referring to motor conditions that cause physical disability in human development, chiefly in the various areas of body movement.
- 2.2 While it is not a progressive disorder (meaning the brain damage does not worsen) cerebral palsy's nature as a broad category means that the rates, trends and predictors of mortality varies widely, depending partly on the severity of each person's impairment and partly on the capability of each person to self-manage the logistics of life.
- 2.3 A number of papers have investigated the survival patterns of individuals born with cerebral palsy in different countries. These include:

**Table 2.3 - Summary of cerebral palsy papers**

Author (and year)	Publication	Country	Classification
Blair et al (2001)	Life expectancy among people with cerebral palsy in Western Australia	Australia	Intellectual ability Motor severity
Hutton et al (2006)	Life expectancy in severe cerebral palsy	U.K.	Ambulation Cognitive ability Visual disability
Westbom et al (2011)	Survival at 19 years of age in a total population of children and young people with cerebral palsy	Sweden	GMFCS V
Reid et al (2012)	Survival of individuals with cerebral palsy born in Victoria, Australia, between 1970 and 2004	Australia	Motor severity Additional impairments
Touyama et al (2013)	Long-term survival of children with cerebral palsy in Okinawa, Japan	Japan	GMFCS V
Strauss et al (2014)	Recent trends in cerebral palsy survival. Part II: individual survival prognosis	U.S.	Motor function Feeding skill

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### 3 Methodology

- 3.1 In order to achieve a robust and intuitive fit of cerebral palsy survival probabilities, a transformation was applied to population survival probabilities (obtained from Australian Bureau of Statistics, "Population Projections, Australia, 2006-2101").
- 3.2 Survival probabilities up to the age specified in the respective study were transformed via a 2-parameter exponential function specified by an adjustment factor at birth, and a rate of change. These parameters were chosen to replicate survival probabilities specified in each study as closely as possible.
- 3.3 Survival probabilities thereafter were estimated via a proportional life expectancy model. Support for this approach can be found in Strauss et al's 2005 publication, "Estimation of Future Mortality Rates and Life Expectancy in Chronic Medical Conditions".
- 3.4 This approach was chosen as it closely replicates the empirical survival rates for individuals with cerebral palsy with a minimal number of parameters, while maintaining consistency with the trends published in broader literature, and reducing the sensitivity of the results to random fluctuations in observed deaths.
- 3.5 The table and graph below compares the mortality ratios from the Blair and Reid papers to fitted ratios under the above approach with a single survival adjustment parameter:

**Table 3.5.1 - Age-specific mortality ratios per 1000 person-years**

Age (years)	Mortality ratio		
	Blair et al (2001)	Reid et al (2012)	Fitted
< 1	1.7	2.1	1.5
1-4	38.9	38.0	13.0
5-9	45.3	56.8	41.0
11-14	25.8	54.0	41.0
15-19	5.3	19.5	15.0
21-24	4.9	10.9	11.9
25-29	3.3	13.1	10.7
31-34	4.3	9.2	8.5
35-39	4.8	2.2	6.4
40+	n.a	n.a	

**Graph 3.5.2 - Single parameter, fitted mortality loading for cerebral palsy population by age (years)**



- 3.6 Categorisations with 100 or fewer individuals were excluded from analysis as their sample size was deemed to be too small to overcome random fluctuations in the number of observed deaths.

## 4 Blair et al (2001)

- 4.1 In their 2001 paper, Blair et al investigated the survival patterns in persons with cerebral palsy for 2,014 individuals born with cerebral palsy in Western Australia between 1958 and 1994.
- 4.2 This paper found strong associations of survival rates with degree of intellectual deficit and motor impairment. Individuals were defined according to the following classifications:

**Table 4.2 - Blair et al (2001) classification of individuals**

Intellectual deficit	Description	Motor impairment	Description
Normal	IQ/DQ > 85	Minimal	Motor signs present but no functional impairment
Borderline	IQ/DQ > 70 to 85	Mild	Symptoms results in some functional impairment
Mild	IQ/DQ > 50 to 69	Moderate	Between mild and severe (ambulant with walking frame)
Moderate	IQ/DQ > 35 to 49	Severe	Little purposeful voluntary action, though function may be acquired, IQ permitting
Severe	IQ/DQ > 20 to 34		
Profound	IQ/DQ < 20		

- 4.3 Further statistical analysis was conducted on the combined impact of several coexisting disabilities. An overall disability score was derived by summing the score assigned to the following disabilities: category of movement disorder (hemiplegia = 1, diplegia = 2, other = 3), severity of movement disorder (minimal = 0, mild = 1, moderate = 2, severe = 3), severity of cognitive deficit (IQ 50 to 69 = 1, IQ 35 to 49 = 2, IQ < 35 = 3), other impairments (blindness = 1; bilateral deafness = 1; current epilepsy = 1).
- 4.4 The relevant statistics from the Blair paper are replicated below:

**Table 4.4.1 - Survival in people with CP in Western Australia (transcribed from graph)**

Categorisation	Survival probabilities					
	5 years	10 years	15 years	20 years	25 years	30 years
All individuals with cerebral palsy	~94%	~91%	~89%	~88%	~86%	~85%

**Table 4.4.2 - Crude mortality rates by overall disability score**

Overall disability score	Crude mortality rates	
	1 to <5 yrs	1 to <5 yrs
1	0.0 (0/266)	0.0 (0/438)
2	0.0 (0/980)	0.7 (2/2740)
3	1.7 (2/1176)	1.2 (5/4053)
4	0.7 (1/1335)	1.1 (6/5400)
5	4.0 (3/752)	1.3 (4/3129)
6	6.2 (4/642)	3.1 (8/2578)
7	2.2 (1/456)	4.5 (8/1781)
8	22.2 (8/361)	8.5 (12/1411)
9	51.9 (28/540)	14.8 (26/1756)
10	46.7 (23/492)	18.4 (24/1304)
11	59.1 (14/237)	46.0 (15/326)
12	79.8 (3/37.6)	8.2 (1/122)
Missing	0.0 (0/255)	3.3 (5/1516)
Total	11.6 (87/7530)	4.4 (116/26554)

## 5 Hutton et al (2006)

- 5.1 In their 2006 paper, Hutton et al investigated the survival patterns in persons with cerebral palsy for 1,647 individuals born with cerebral palsy in United Kingdom over an unspecified interval.
- 5.2 This paper found that severity of cognitive, motor (manual and ambulatory), and visual disabilities have independent effects on the probability of survival.

**Table 5.2 - Hutton et al (2006) classification of individuals**

Disability	Description
Severe ambulation disability	Carer operated wheelchair
Severe manual dexterity disability	Unable to feed and dress
Severe cognitive disability	IQ < 50
Severe visual disability	6/60 or worse in better eye, functionally blind
Severe hearing disability	Bilateral disability, or severe unilateral disability

- 5.3 The statistical analysis of the Hutton paper concluded that severe hearing disability did not add additional information when the other four functional disability categories are included.
- 5.4 The relevant statistics from the Hutton paper are replicated below:

**Table 5.4 - Severity category according to functional disability (transcribed from graphs)**

Categorisation	Cohort count	Survival probabilities			
		10 years	20 years	30 years	40 years
Univariate analysis					
Severe ambulation disability	384	~68%	~49%	~40%	~33%
Severe manual dexterity disability	374	~68%	~49%	~40%	~30%
Severe cognitive disability	563	~64%	~40%	~32%	~29%
Severe visual disability	266	~77%	~63%	~56%	~48%
Multivariate analysis					
Severe motor, cognitive and visual	266	~57%	~39%	~30%	~18%

## 6 Westbom et al (2011)

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- 6.1 In their 2011 paper, Westborn et al investigated the survival patterns in persons with cerebral palsy for 708 individuals born with cerebral palsy in Sweden between 1990 and 2005.
- 6.2 The statistical analysis of the Westbom paper was performed with respect to GMFCS level and gastrostomy feeding, though survival curves were presented only for GMFCS (Level V) individuals:
- 6.3 The relevant statistics from the Westbom paper are replicated below:

**Table 6.3 - Survival probabilities for GMFCS Level V individuals (transcribed from graph)**

Severity	Beginning total	Total deaths	Survival probabilities (from age 2)			
			5 years	10 years	15 years	20 years
GMFCS V	102	25	~92%	~82%	~71%	~61%

## 7 Reid et al (2012)

7.1 In their 2012 paper, Reid et al investigated the survival patterns in persons with cerebral palsy for 3,507 individuals born with cerebral palsy in Victoria between 1970 and 2004.

7.2 This paper found strong associations of survival rates with degree of intellectual deficit and motor impairment. Individuals were defined according to the following classifications:

**Table 7.2 - Reid et al (2012) classification of individuals**

Motor impairment	Description
Mild	GMFCS Level I and II - Independently ambulant at 5 years of age
Moderate	GMFCS Level III - Ambulant with the assistance of a hand-held mobility device
Severe	GMFCS Level IV and V - No independent ambulation

7.3 The statistical analysis of the Reid paper was performed with respect to motor impairment classification subdivided by the number of additional impairments present from a possible five, comprising epilepsy, severe / profound intellectual impairment (IQ < 30), blindness deafness (hearing loss > 70dB), and lack of speech.

7.4 The relevant statistics from the Reid paper are replicated below:

**Table 7.4 - Survival probabilities by motor impairment and additional impairments**

Motor severity + n additional impairments <sup>1</sup>	Beginning	Total	Survival probabilities			
	total	deaths	10 years	20 years	30 years	40 years
Mild+0	1,478	14	99.9%	99.2%	98.3%	97.7%
Mild+1	378	7	99.2%	99.2%	97.9%	95.1%
Mild+2	77	1	100.0%	98.4%	98.4%	98.1%
Mild+3	41	4	95.1%	95.1%	88.8%	88.8%
Moderate+0	262	6	99.2%	99.2%	97.6%	89.0%
Moderate+1	100	7	95.9%	93.5%	90.7%	90.7%
Moderate+2	57	7	98.2%	89.7%	83.4%	-
Moderate+3	39	3	100.0%	94.4%	91.4%	-
Severe+0	156	19	91.0%	90.1%	83.5%	-
Severe+1	222	52	86.3%	78.0%	68.7%	56.8%
Severe+2	297	104	79.8%	68.0%	52.1%	-
Severe+3	352	182	80.7%	51.7%	35.3%	30.8%

<sup>1</sup> Additional impairments from a possible five, comprising epilepsy, severe / profound intellectual impairment, blindness deafness, and lack of speech



## 8 Touyama et al (2013)

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- 8.1 In their 2013 paper, Touyama et al investigated the survival patterns in persons with cerebral palsy for 580 individuals born with cerebral palsy in Japan between 1988 and 2005.
- 8.2 The statistical analysis of the Touyama paper was performed with respect to GMFCS level, birth weight and gestation period, with survival curves presented only for GMFCS (Level V) individuals.
- 8.3 The relevant statistics from the Touyama paper are replicated below:

**Table 8.3 - Survival probabilities for GMFCS Level V individuals (transcribed from graph)**

Severity	Beginning total	Total deaths	Survival probabilities (from age 2)			
			5 years	10 years	15 years	20 years
GMFCS V	166	29	~94%	~84%	~76%	~72%

## 9 Strauss et al (2014)

9.1 In their 2014 paper, Strauss et al investigated the survival patterns in persons with cerebral palsy for 16,440 individuals born with cerebral palsy in California between 1983 and 2010.

9.2 This paper found strong associations of survival rates with gross motor function and mode of feeding. Individuals were defined according to the following classifications:

**Table 9.2 - Strauss et al (2014) classification of individuals**

Motor impairment	Mode of feeding
Does not lift head in the prone position	Tube fed
Lifts head but not chest in the prone position	Fed orally by others
Lifts head and chest, partial rolling	Feeds self orally
Full rolling, does not walk unaided	
Walks unaided	

9.3 The statistical analysis of the Strauss paper was performed with respect to gross motor impairment and mode of feeding. Additional analysis was conducted to adjust Kaplan–Meier survival curves to 2010 levels, though for consistency with other studies in this publication, the unadjusted Kaplan–Meier survival probabilities have been used

9.4 The relevant statistics from the Strauss paper are replicated below:

**Table 9.4 - (Unadjusted) survival probabilities by gross motor impairment and feeding status**

Categorisation	Survival probabilities					
	Beginning total	10 years	15 years	20 years	25 years	30 years
Does not lift head in the prone position						
Tube fed	482	68%	48%	33%	25%	21%
Fed orally by others	615	80%	66%	51%	43%	39%
Feeds self orally	50	95%	88%	88%	-	-
Lifts head but not chest in the prone position						
Tube fed	303	73%	58%	48%	38%	29%
Fed orally by others	795	85%	73%	61%	49%	44%
Feeds self orally	103	95%	89%	84%	74%	74%
Lifts head and chest, partial rolling						
Tube fed	265	77%	65%	59%	48%	35%
Fed orally by others	962	90%	81%	73%	62%	52%
Feeds self orally	329	96%	93%	91%	85%	75%
Full rolling, does not walk unaided						
Tube fed	475	87%	81%	73%	60%	52%
Fed orally by others	1,643	95%	91%	86%	82%	76%
Feeds self orally	4,906	98%	97%	95%	93%	91%
Walks unaided						
Tube fed	125	95%	93%	84%	79%	-
Fed orally by others	188	96%	95%	95%	95%	86%
Feeds self orally	5,199	99%	99%	98%	96%	94%

9.5 The Strauss paper also provides life expectancy calculations, but these are in respect of cohorts of individuals aged 15, 30, 45 and 60 during the interval of study (1983 to 2010).

## A Demonstrated parameter fitting

Age	Regular life table			Survival adjustment	Adjusted life table			
	Mortality	Probability of survival	Life expectancy		Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00432	100.00%	87.84	99.78%	0.00648	1.50	100.00%	77.10
1	0.00031	99.57%	87.22	99.78%	0.00248	8.00	99.35%	76.60
2	0.00018	99.54%	86.25	99.78%	0.00235	13.06	99.11%	75.79
3	0.00013	99.52%	85.26	99.78%	0.00230	17.70	98.87%	74.97
4	0.00010	99.51%	84.28	99.78%	0.00227	22.71	98.64%	74.14
5	0.00008	99.50%	83.28	99.78%	0.00225	28.14	98.42%	73.31
6	0.00006	99.49%	82.29	99.78%	0.00223	37.19	98.20%	72.47
7	0.00005	99.48%	81.30	99.78%	0.00222	44.43	97.98%	71.63
8	0.00004	99.48%	80.30	99.78%	0.00221	55.29	97.76%	70.79
9	0.00004	99.47%	79.30	99.78%	0.00221	55.29	97.55%	69.95
10	0.00004	99.47%	78.31	99.78%	0.00221	55.29	97.33%	69.10
11	0.00004	99.47%	77.31	99.78%	0.00221	55.29	97.12%	68.25
12	0.00005	99.46%	76.31	99.78%	0.00222	44.43	96.90%	67.40
13	0.00006	99.46%	75.32	99.78%	0.00223	37.19	96.69%	66.55
14	0.00008	99.45%	74.32	99.78%	0.00225	28.14	96.47%	65.70
15	0.00011	99.44%	73.33	99.78%	0.00228	20.74	96.25%	64.85
16	0.00013	99.43%	72.33	99.78%	0.00230	17.70	96.03%	64.00
17	0.00016	99.42%	71.34	99.78%	0.00233	14.57	95.81%	63.14
18	0.00018	99.40%	70.36	99.78%	0.00235	13.06	95.59%	62.29
19	0.00019	99.38%	69.37	99.78%	0.00236	12.43	95.36%	61.43
20	0.00019	99.37%	68.38	99.78%	0.00236	12.43	95.14%	60.58
21	0.00020	99.35%	67.39	99.78%	0.00237	11.86	94.91%	59.72
22	0.00020	99.33%	66.41	99.78%	0.00237	11.86	94.69%	58.86
23	0.00020	99.31%	65.42	99.78%	0.00237	11.86	94.46%	58.00
24	0.00020	99.29%	64.43	99.78%	0.00237	11.86	94.24%	57.14
25	0.00021	99.27%	63.45	99.78%	0.00238	11.34	94.02%	56.27
26	0.00021	99.25%	62.46	99.78%	0.00238	11.34	93.79%	55.40
27	0.00022	99.23%	61.47	99.78%	0.00239	10.87	93.57%	54.54
28	0.00023	99.20%	60.49	99.78%	0.00240	10.44	93.35%	53.66
29	0.00024	99.18%	59.50	99.78%	0.00241	10.05	93.12%	52.79
30	0.00026	99.16%	58.51	99.78%	0.00243	9.35	92.90%	51.92
31	0.00027	99.13%	57.53		0.00248	9.18	92.67%	51.04
32	0.00030	99.11%	56.54		0.00255	8.49	92.44%	50.17
33	0.00032	99.08%	55.56		0.00261	8.15	92.21%	49.30
34	0.00034	99.04%	54.58		0.00267	7.85	91.97%	48.42
35	0.00038	99.01%	53.60		0.00275	7.24	91.72%	47.55
36	0.00041	98.97%	52.62		0.00282	6.89	91.47%	46.68
37	0.00045	98.93%	51.64		0.00291	6.47	91.21%	45.81
38	0.00050	98.89%	50.66		0.00301	6.02	90.94%	44.95
39	0.00054	98.84%	49.69		0.00310	5.73	90.67%	44.08
40	0.00060	98.78%	48.71		0.00321	5.35	90.39%	43.21
50	0.00112	97.98%	39.07		0.00437	3.90	87.11%	34.65
60	0.00234	96.48%	29.59		0.00663	2.83	82.67%	26.22
70	0.00600	93.01%	20.48		0.01220	2.03	75.75%	18.12
80	0.02221	83.10%	12.21		0.03261	1.47	62.53%	10.76
90	0.09567	51.06%	6.22		0.11610	1.21	33.01%	5.41
100	0.19897	9.65%	4.02		0.23057	1.16	4.55%	3.38

Target and fitted criteria are as follows:

**All individuals with cerebral palsy**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	94%	95%	0.067
0	10	91%	91%	0.018
0	15	89%	89%	0.000
0	20	88%	87%	0.090
0	25	86%	86%	0.009
0	30	85%	85%	0.013
0	35	83%	84%	0.085
Total				0.2822

**Disability score 1 to 3**

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	7%	8%	0.589
5	40	22%	21%	0.402
Total				0.9919

**Disability score 4 to 6**

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	25%	25%	0.000
5	40	37%	37%	0.000
Total				0.0000

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Adjusted life table						
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy		
0	0.00432	100.00%	87.84	5.66%	98.92%	0.01507	3.49	100.00%	73.00	
1	0.00031	99.57%	87.22		98.98%	0.01049	33.84	98.49%	73.11	
2	0.00018	99.54%	86.25		99.04%	0.00978	54.35	97.46%	72.88	
3	0.00013	99.52%	85.26		99.09%	0.00919	70.69	96.51%	72.59	
4	0.00010	99.51%	84.28		99.15%	0.00865	86.47	95.62%	72.26	
5	0.00008	99.50%	83.28		99.19%	0.00814	101.79	94.79%	71.89	
6	0.00006	99.49%	82.29		99.24%	0.00767	127.77	94.02%	71.47	
7	0.00005	99.48%	81.30		99.28%	0.00723	144.51	93.30%	71.02	
8	0.00004	99.48%	80.30		99.32%	0.00681	170.23	92.63%	70.53	
9	0.00004	99.47%	79.30		99.36%	0.00643	160.64	92.00%	70.01	
10	0.00004	99.47%	78.31		99.40%	0.00606	151.60	91.40%	69.46	
11	0.00004	99.47%	77.31		99.43%	0.00572	143.07	90.85%	68.88	
12	0.00005	99.46%	76.31		99.46%	0.00541	108.22	90.33%	68.28	
13	0.00006	99.46%	75.32		99.49%	0.00512	85.29	89.84%	67.65	
14	0.00008	99.45%	74.32		99.52%	0.00485	60.63	89.38%	66.99	
15	0.00011	99.44%	73.33		99.55%	0.00461	41.91	88.95%	66.32	
16	0.00013	99.43%	72.33		99.58%	0.00438	33.66	88.54%	65.62	
17	0.00016	99.42%	71.34		99.60%	0.00416	26.03	88.15%	64.91	
18	0.00018	99.40%	70.36		99.62%	0.00396	21.99	87.78%	64.18	
19	0.00019	99.38%	69.37		99.64%	0.00375	19.76	87.44%	63.43	
20	0.00019	99.37%	68.38		99.66%	0.00355	18.69	87.11%	62.67	
21	0.00020	99.35%	67.39		99.68%	0.00337	16.86	86.80%	61.89	
22	0.00020	99.33%	66.41		99.70%	0.00319	15.96	86.51%	61.09	
23	0.00020	99.31%	65.42		99.72%	0.00302	15.11	86.23%	60.29	
24	0.00020	99.29%	64.43		99.73%	0.00286	14.31	85.97%	59.47	
25	0.00021	99.27%	63.45		99.75%	0.00272	12.96	85.72%	58.64	
26	0.00021	99.25%	62.46		99.76%	0.00258	12.28	85.49%	57.80	
27	0.00022	99.23%	61.47		99.78%	0.00246	11.16	85.27%	56.95	
28	0.00023	99.20%	60.49		99.79%	0.00234	10.17	85.06%	56.08	
29	0.00024	99.18%	59.50		99.80%	0.00223	9.29	84.86%	55.22	
30	0.00026	99.16%	58.51		99.81%	0.00214	8.22	84.67%	54.34	0.93
40	0.00060	98.78%	48.71		0.00214	3.57	83.04%	45.31	0.93	
50	0.00112	97.98%	39.07		0.00304	2.72	80.97%	36.33	0.93	
60	0.00234	96.48%	29.59		0.00488	2.08	78.01%	27.51	0.93	
70	0.00600	93.01%	20.48		0.00967	1.61	72.99%	19.02	0.93	
80	0.02221	83.10%	12.21		0.02836	1.28	62.23%	11.32	0.93	
90	0.09567	51.06%	6.22		0.10775	1.13	34.97%	5.72	0.92	
100	0.19897	9.65%	4.02		0.21766	1.09	5.49%	3.67		

Adjusted life table					
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0.00%					
99.94%	0.00487	1.13	100.00%	84.99	
99.94%	0.00086	2.78	99.51%	84.41	
99.94%	0.00073	4.07	99.43%	83.48	
99.94%	0.00068	5.25	99.35%	82.54	
99.94%	0.00065	6.53	99.29%	81.60	
99.94%	0.00063	7.91	99.22%	80.65	
99.94%	0.00061	10.22	99.16%	79.70	
99.94%	0.00060	12.06	99.10%	78.75	
99.94%	0.00059	14.83	99.04%	77.80	
99.94%	0.00059	14.83	98.98%	76.84	
99.94%	0.00059	14.83	98.92%	75.89	
99.94%	0.00059	14.83	98.86%	74.93	
99.94%	0.00060	12.06	98.80%	73.98	
99.94%	0.00061	10.22	98.74%	73.02	
99.94%	0.00063	7.91	98.68%	72.07	
99.94%	0.00066	6.03	98.62%	71.11	
99.94%	0.00068	5.25	98.56%	70.16	
99.94%	0.00071	4.46	98.49%	69.20	
99.94%	0.00073	4.07	98.42%	68.25	
99.94%	0.00074	3.91	98.35%	67.30	
99.94%	0.00074	3.91	98.27%	66.35	
99.94%	0.00075	3.77	98.20%	65.40	
99.94%	0.00075	3.77	98.13%	64.45	
99.94%	0.00075	3.77	98.05%	63.50	
99.94%	0.00075	3.77	97.98%	62.55	
99.94%	0.00076	3.63	97.90%	61.59	
99.94%	0.00076	3.63	97.83%	60.64	
99.94%	0.00077	3.51	97.75%	59.69	
99.94%	0.00078	3.40	97.68%	58.73	
99.94%	0.00079	3.30	97.60%	57.78	
99.94%	0.00081	3.13	97.53%	56.82	0.97
0.00121	2.01	96.61%	47.31	0.97	
0.00188	1.68	95.18%	37.94	0.97	
0.00334	1.43	92.92%	28.73	0.97	
0.00745	1.24	88.53%	19.88	0.97	
0.02464	1.11	77.65%	11.84	0.97	
0.10044	1.05	46.07%	6.01	0.97	
0.20634	1.04	8.10%	3.88		

Adjusted life table					
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
3.75%					
99.76%	0.00674	1.56	100.00%	82.70	
99.77%	0.00265	8.55	99.33%	82.25	
99.77%	0.00243	13.51	99.06%	81.47	
99.78%	0.00230	17.68	98.82%	80.67	
99.79%	0.00219	21.87	98.59%	79.85	
99.80%	0.00209	26.11	98.38%	79.03	
99.81%	0.00199	33.23	98.17%	78.19	
99.81%	0.00191	38.22	97.98%	77.35	
99.82%	0.00183	45.78	97.79%	76.49	
99.83%	0.00176	44.11	97.61%	75.63	
99.83%	0.00170	42.49	97.44%	74.77	
99.84%	0.00164	40.93	97.27%	73.89	
99.85%	0.00159	31.75	97.11%	73.01	
99.85%	0.00154	25.66	96.96%	72.13	
99.86%	0.00150	18.80	96.81%	71.24	
99.86%	0.00148	13.46	96.67%	70.34	
99.87%	0.00145	11.15	96.52%	69.45	
99.87%	0.00143	8.94	96.38%	68.55	
99.88%	0.00140	7.79	96.24%	67.65	
99.88%	0.00137	7.19	96.11%	66.74	
99.89%	0.00132	6.96	95.98%	65.83	
99.89%	0.00129	6.45	95.85%	64.92	
99.90%	0.00125	6.25	95.73%	64.00	
99.90%	0.00121	6.05	95.61%	63.08	
99.90%	0.00117	5.86	95.49%	62.16	
99.91%	0.00115	5.45	95.38%	61.23	
99.91%	0.00111	5.29	95.27%	60.30	
99.91%	0.00109	4.94	95.17%	59.36	
99.92%	0.00106	4.63	95.06%	58.43	
99.92%	0.00104	4.35	94.96%	57.49	
99.92%	0.00103	3.97	94.86%	56.55	0.97
0.00130	2.17	93.85%	47.10	0.97	
0.00200	1.78	92.37%	37.77	0.97	
0.00350	1.49	90.06%	28.60	0.97	
0.00767	1.28	85.65%	19.79	0.97	
0.02501	1.13	74.91%	11.79	0.97	
0.10117	1.06	44.20%	5.98	0.96	
0.20748	1.04	7.68%	3.86		

Target and fitted criteria are as follows:

**Disability score 7 to 9**

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	236%	236%	0.000
5	40	213%	213%	0.001
Total				0.0005

**Disability score 10 to 12**

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	452%	452%	0.000
5	40	523%	521%	0.029
Total				0.0288

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				5.82%				
0	0.00432	100.00%	87.84	97.36%	0.03059	7.08	100.00%	57.11
1	0.00031	99.57%	87.22	97.51%	0.02515	81.14	96.94%	57.90
2	0.00018	99.54%	86.25	97.66%	0.02358	131.01	94.50%	58.38
3	0.00013	99.52%	85.26	97.80%	0.02217	170.55	92.27%	58.78
4	0.00010	99.51%	84.28	97.92%	0.02086	208.59	90.23%	59.10
5	0.00008	99.50%	83.28	98.04%	0.01963	245.40	88.35%	59.35
6	0.00006	99.49%	82.29	98.16%	0.01847	307.91	86.61%	59.52
7	0.00005	99.48%	81.30	98.27%	0.01739	347.87	85.01%	59.63
8	0.00004	99.48%	80.30	98.37%	0.01637	409.36	83.53%	59.68
9	0.00004	99.47%	79.30	98.46%	0.01542	385.60	82.16%	59.67
10	0.00004	99.47%	78.31	98.55%	0.01453	363.23	80.90%	59.59
11	0.00004	99.47%	77.31	98.64%	0.01369	342.15	79.72%	59.46
12	0.00005	99.46%	76.31	98.71%	0.01290	258.04	78.63%	59.28
13	0.00006	99.46%	75.32	98.79%	0.01216	202.74	77.62%	59.05
14	0.00008	99.45%	74.32	98.86%	0.01148	143.50	76.67%	58.77
15	0.00011	99.44%	73.33	98.93%	0.01085	98.60	75.79%	58.45
16	0.00013	99.43%	72.33	98.99%	0.01024	78.78	74.97%	58.08
17	0.00016	99.42%	71.34	99.05%	0.00968	60.52	74.20%	57.68
18	0.00018	99.40%	70.36	99.10%	0.00915	50.83	73.48%	57.24
19	0.00019	99.38%	69.37	99.16%	0.00864	45.46	72.81%	56.76
20	0.00019	99.37%	68.38	99.20%	0.00815	42.87	72.18%	56.25
21	0.00020	99.35%	67.39	99.25%	0.00769	38.46	71.59%	55.71
22	0.00020	99.33%	66.41	99.29%	0.00726	36.28	71.04%	55.14
23	0.00020	99.31%	65.42	99.34%	0.00685	34.23	70.53%	54.54
24	0.00020	99.29%	64.43	99.37%	0.00646	32.30	70.05%	53.91
25	0.00021	99.27%	63.45	99.41%	0.00610	29.07	69.59%	53.26
26	0.00021	99.25%	62.46	99.44%	0.00576	27.44	69.17%	52.58
27	0.00022	99.23%	61.47	99.48%	0.00545	24.77	68.77%	51.88
28	0.00023	99.20%	60.49	99.51%	0.00515	22.41	68.40%	51.17
29	0.00024	99.18%	59.50	99.54%	0.00488	20.33	68.04%	50.43
30	0.00026	99.16%	58.51	99.56%	0.00463	17.80	67.71%	49.67
								0.85
40	0.00060	98.78%	48.71		0.00416	6.94	65.05%	41.51
								0.85
50	0.00112	97.98%	39.07		0.00556	4.96	62.03%	33.28
								0.85
60	0.00234	96.48%	29.59		0.00820	3.51	58.08%	25.18
								0.85
70	0.00600	93.01%	20.48		0.01447	2.41	52.24%	17.40
								0.85
80	0.02221	83.10%	12.21		0.03642	1.64	41.88%	10.32
								0.85
90	0.09567	51.06%	6.22		0.12357	1.29	20.91%	5.18
								0.83
100	0.19897	9.65%	4.02		0.24212	1.22	2.56%	3.30

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
2.44%				
95.19%	0.05223	12.09	100.00%	26.90
95.31%	0.04723	152.37	94.78%	27.35
95.42%	0.04596	255.35	90.30%	27.69
95.53%	0.04480	344.59	86.15%	27.99
95.64%	0.04368	436.76	82.29%	28.28
95.75%	0.04259	532.39	78.70%	28.55
95.85%	0.04153	692.21	75.34%	28.80
95.95%	0.04051	810.18	72.22%	29.03
96.05%	0.03951	987.76	69.29%	29.23
96.15%	0.03855	963.63	66.55%	29.41
96.24%	0.03760	940.10	63.99%	29.57
96.34%	0.03669	917.14	61.58%	29.71
96.42%	0.03580	715.98	59.32%	29.82
96.51%	0.03493	582.25	57.20%	29.91
96.60%	0.03410	426.27	55.20%	29.97
96.68%	0.03330	302.71	53.32%	30.02
96.76%	0.03251	250.05	51.54%	30.03
96.84%	0.03174	198.40	49.87%	30.02
96.92%	0.03099	172.17	48.28%	29.99
96.99%	0.03025	159.20	46.79%	29.94
97.07%	0.02951	155.33	45.37%	29.85
97.14%	0.02881	144.03	44.03%	29.75
97.21%	0.02811	140.53	42.76%	29.61
97.28%	0.02742	137.12	41.56%	29.46
97.34%	0.02676	133.79	40.42%	29.27
97.41%	0.02612	124.37	39.34%	29.06
97.47%	0.02549	121.36	38.31%	28.83
97.53%	0.02488	113.08	37.34%	28.57
97.59%	0.02428	105.58	36.41%	28.29
97.65%	0.02371	98.77	35.52%	27.98
97.71%	0.02315	89.04	34.68%	27.64
	0.02285	38.09	27.83%	23.28
	0.02886	25.77	21.53%	18.63
	0.03897	16.65	15.40%	14.06
	0.05893	9.82	9.55%	9.66
	0.11098	5.00	4.25%	5.63
	0.27003	2.82	0.66%	2.67
	0.46861	2.36	0.01%	1.71

Target and fitted criteria are as follows:

**Severe ambulation disability**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	68%	67%	0.069
0	20	49%	50%	0.152
0	30	40%	40%	0.048
0	40	33%	33%	0.001
Total				0.2698

**Severe manual dexterity disability**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	68%	68%	0.010
0	20	49%	50%	0.144
0	30	40%	38%	0.712
0	40	30%	31%	0.169
Total				1.0343

**Severe cognitive disability**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	64%	60%	2.018
0	20	40%	42%	1.501
0	30	32%	33%	0.336
0	40	29%	28%	0.673
Total				4.5281

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Adjusted life table					
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00432	100.00%	87.84	2.59%	95.70%	0.04709	10.90	100.00%	31.26
1	0.00031	99.57%	87.22		95.82%	0.04214	135.94	95.29%	31.78
2	0.00018	99.54%	86.25		95.92%	0.04094	227.42	91.28%	32.16
3	0.00013	99.52%	85.26		96.03%	0.03983	306.41	87.54%	32.51
4	0.00010	99.51%	84.28		96.13%	0.03878	387.78	84.05%	32.83
5	0.00008	99.50%	83.28		96.23%	0.03776	471.98	80.79%	33.14
6	0.00006	99.49%	82.29		96.33%	0.03677	612.75	77.74%	33.42
7	0.00005	99.48%	81.30		96.42%	0.03581	716.13	74.88%	33.68
8	0.00004	99.48%	80.30		96.52%	0.03487	871.80	72.20%	33.91
9	0.00004	99.47%	79.30		96.61%	0.03397	849.29	69.68%	34.12
10	0.00004	99.47%	78.31		96.69%	0.03309	827.35	67.32%	34.30
11	0.00004	99.47%	77.31		96.78%	0.03224	805.98	65.09%	34.45
12	0.00005	99.46%	76.31		96.86%	0.03142	628.33	62.99%	34.59
13	0.00006	99.46%	75.32		96.94%	0.03062	510.25	61.01%	34.69
14	0.00008	99.45%	74.32		97.02%	0.02984	373.05	59.14%	34.77
15	0.00011	99.44%	73.33		97.10%	0.02910	264.58	57.38%	34.82
16	0.00013	99.43%	72.33		97.18%	0.02837	218.26	55.71%	34.85
17	0.00016	99.42%	71.34		97.25%	0.02767	172.95	54.13%	34.86
18	0.00018	99.40%	70.36		97.32%	0.02698	149.89	52.63%	34.83
19	0.00019	99.38%	69.37		97.39%	0.02630	138.41	51.21%	34.79
20	0.00019	99.37%	68.38		97.46%	0.02562	134.85	49.86%	34.71
21	0.00020	99.35%	67.39		97.52%	0.02497	124.87	48.59%	34.61
22	0.00020	99.33%	66.41		97.59%	0.02433	121.67	47.37%	34.49
23	0.00020	99.31%	65.42		97.65%	0.02371	118.55	46.22%	34.33
24	0.00020	99.29%	64.43		97.71%	0.02310	115.51	45.12%	34.16
25	0.00021	99.27%	63.45		97.77%	0.02252	107.23	44.08%	33.95
26	0.00021	99.25%	62.46		97.83%	0.02194	104.49	43.09%	33.72
27	0.00022	99.23%	61.47		97.88%	0.02139	97.23	42.14%	33.47
28	0.00023	99.20%	60.49		97.94%	0.02085	90.66	41.24%	33.19
29	0.00024	99.18%	59.50		97.99%	0.02033	84.70	40.38%	32.88
30	0.00026	99.16%	58.51		98.04%	0.01983	76.27	39.56%	32.56
40	0.00060	98.78%	48.71		98.49%	0.01565	26.09	33.05%	28.05
50	0.00112	97.98%	39.07			0.01989	17.76	27.73%	22.47
60	0.00234	96.48%	29.59			0.02712	11.59	22.02%	16.98
70	0.00600	93.01%	20.48			0.04181	6.97	15.78%	11.68
80	0.02221	83.10%	12.21			0.08226	3.70	8.85%	6.85
90	0.09567	51.06%	6.22			0.21363	2.23	2.19%	3.31
100	0.19897	9.65%	4.02			0.38139	1.92	0.06%	2.10

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.79%	96.00%	0.04418	10.23	100.00%
	96.07%	0.03961	127.78	95.58%
	96.14%	0.03879	215.47	91.80%
	96.21%	0.03805	292.66	88.24%
	96.28%	0.03734	373.39	84.88%
	96.34%	0.03665	458.17	81.71%
	96.41%	0.03598	599.66	78.71%
	96.47%	0.03533	706.54	75.88%
	96.54%	0.03469	867.16	73.20%
	96.60%	0.03407	851.66	70.66%
	96.66%	0.03346	836.44	68.26%
	96.72%	0.03286	821.49	65.97%
	96.78%	0.03228	645.64	63.80%
	96.83%	0.03171	528.58	61.74%
	96.89%	0.03117	389.60	59.79%
	96.95%	0.03064	278.55	57.92%
	97.00%	0.03011	231.64	56.15%
	97.05%	0.02961	185.04	54.46%
	97.11%	0.02910	161.66	52.84%
	97.16%	0.02859	150.48	51.31%
	97.21%	0.02808	147.80	49.84%
	97.26%	0.02759	137.97	48.44%
	97.31%	0.02710	135.52	47.10%
	97.36%	0.02662	133.11	45.83%
	97.40%	0.02615	130.75	44.61%
	97.45%	0.02569	122.36	43.44%
	97.50%	0.02524	120.18	42.32%
	97.54%	0.02480	112.73	41.26%
	97.59%	0.02437	105.96	40.23%
	97.63%	0.02395	99.78	39.25%
	97.67%	0.02354	90.55	38.31%
	98.06%	0.02003	33.38	30.71%
		0.02535	22.63	24.53%
		0.03433	14.67	18.29%
		0.05222	8.70	12.00%
		0.09972	4.49	5.85%
		0.24793	2.59	1.09%
		0.43443	2.18	0.01%

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
3.36%	94.35%	0.06053	14.01	100.00%
	94.54%	0.05485	176.94	93.95%
	94.73%	0.05290	293.87	88.79%
	94.90%	0.05108	392.90	84.10%
	95.08%	0.04934	493.36	79.80%
	95.24%	0.04766	595.78	75.86%
	95.40%	0.04604	767.40	72.25%
	95.56%	0.04449	889.78	68.92%
	95.71%	0.04299	1,074.64	65.86%
	95.85%	0.04154	1,038.55	63.02%
	95.99%	0.04015	1,003.68	60.41%
	96.12%	0.03880	969.98	57.98%
	96.25%	0.03751	750.12	55.73%
	96.38%	0.03626	604.28	53.64%
	96.50%	0.03506	438.24	51.70%
	96.62%	0.03391	308.30	49.88%
	96.73%	0.03280	252.28	48.19%
	96.84%	0.03173	198.29	46.61%
	96.95%	0.03069	170.48	45.13%
	97.05%	0.02967	156.16	43.75%
	97.15%	0.02868	150.94	42.45%
	97.25%	0.02773	138.66	41.23%
	97.34%	0.02681	134.03	40.09%
	97.43%	0.02591	129.56	39.01%
	97.51%	0.02505	125.24	38.00%
	97.60%	0.02422	115.34	37.05%
	97.68%	0.02342	111.50	36.15%
	97.76%	0.02264	102.93	35.31%
	97.83%	0.02190	95.22	34.51%
	97.91%	0.02118	88.26	33.75%
	97.98%	0.02050	78.84	33.04%
	98.56%	0.01497	24.95	27.60%
		0.01904	17.00	23.33%
		0.02600	11.11	18.72%
		0.04019	6.70	13.60%
		0.07955	3.58	7.79%
		0.20830	2.18	2.01%
		0.37314	1.88	0.06%

Target and fitted criteria are as follows:

**Severe visual disability**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	77%	77%	0.008
0	20	63%	64%	0.053
0	30	56%	55%	0.308
0	40	48%	49%	0.079
Total				0.4473

**Severe motor, cognitive and visual**

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	57%	60%	1.197
0	20	39%	39%	0.034
0	30	30%	27%	3.527
0	40	18%	20%	1.346
Total				6.1039

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table					
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00432	100.00%	87.84	2.60%	97.20%	0.03223	7.46	100.00%	42.80
1	0.00031	99.57%	87.22		97.27%	0.02760	89.04	96.78%	43.21
2	0.00018	99.54%	86.25		97.34%	0.02677	148.70	94.11%	43.43
3	0.00013	99.52%	85.26		97.41%	0.02603	200.19	91.59%	43.61
4	0.00010	99.51%	84.28		97.48%	0.02532	253.23	89.20%	43.76
5	0.00008	99.50%	83.28		97.54%	0.02465	308.09	86.94%	43.88
6	0.00006	99.49%	82.29		97.61%	0.02399	399.82	84.80%	43.98
7	0.00005	99.48%	81.30		97.67%	0.02336	467.15	82.77%	44.05
8	0.00004	99.48%	80.30		97.73%	0.02274	568.54	80.83%	44.09
9	0.00004	99.47%	79.30		97.79%	0.02215	553.78	79.00%	44.10
10	0.00004	99.47%	78.31		97.85%	0.02158	539.41	77.25%	44.09
11	0.00004	99.47%	77.31		97.90%	0.02102	525.41	75.58%	44.05
12	0.00005	99.46%	76.31		97.96%	0.02048	409.62	73.99%	43.99
13	0.00006	99.46%	75.32		98.01%	0.01996	332.66	72.48%	43.90
14	0.00008	99.45%	74.32		98.06%	0.01946	243.27	71.03%	43.78
15	0.00011	99.44%	73.33		98.11%	0.01899	172.61	69.65%	43.64
16	0.00013	99.43%	72.33		98.16%	0.01852	142.43	68.32%	43.47
17	0.00016	99.42%	71.34		98.21%	0.01807	112.92	67.06%	43.28
18	0.00018	99.40%	70.36		98.26%	0.01762	97.90	65.85%	43.07
19	0.00019	99.38%	69.37		98.30%	0.01718	90.41	64.69%	42.83
20	0.00019	99.37%	68.38		98.35%	0.01674	88.09	63.58%	42.57
21	0.00020	99.35%	67.39		98.39%	0.01632	81.58	62.51%	42.29
22	0.00020	99.33%	66.41		98.43%	0.01590	79.48	61.49%	41.98
23	0.00020	99.31%	65.42		98.47%	0.01549	77.44	60.51%	41.65
24	0.00020	99.29%	64.43		98.51%	0.01509	75.46	59.58%	41.30
25	0.00021	99.27%	63.45		98.55%	0.01471	70.07	58.68%	40.93
26	0.00021	99.25%	62.46		98.59%	0.01434	68.27	57.81%	40.53
27	0.00022	99.23%	61.47		98.62%	0.01398	63.54	56.99%	40.11
28	0.00023	99.20%	60.49		98.66%	0.01363	59.27	56.19%	39.67
29	0.00024	99.18%	59.50		98.69%	0.01329	55.39	55.42%	39.22
30	0.00026	99.16%	58.51		98.73%	0.01297	49.90	54.69%	38.74
40	0.00060	98.78%	48.71		99.02%	0.01037	17.28	48.61%	32.99
50	0.00112	97.98%	39.07			0.01330	11.87	43.27%	26.43
60	0.00234	96.48%	29.59			0.01842	7.87	37.08%	19.98
70	0.00600	93.01%	20.48			0.02923	4.87	29.52%	13.77
80	0.02221	83.10%	12.21			0.06117	2.75	19.54%	8.12
90	0.09567	51.06%	6.22			0.17220	1.80	6.72%	3.99
100	0.19897	9.65%	4.02			0.31731	1.59	0.37%	2.52

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.63%				
94.63%	0.05777	13.37	100.00%	22.07
94.72%	0.05310	171.30	94.22%	22.40
94.81%	0.05212	289.54	89.22%	22.62
94.89%	0.05122	394.01	84.57%	22.84
94.97%	0.05036	503.59	80.24%	23.05
95.06%	0.04952	618.99	76.20%	23.24
95.14%	0.04869	811.55	72.42%	23.43
95.22%	0.04789	957.79	68.90%	23.60
95.29%	0.04710	1,177.48	65.60%	23.76
95.37%	0.04633	1,158.28	62.51%	23.91
95.45%	0.04558	1,139.38	59.61%	24.05
95.52%	0.04483	1,120.80	56.90%	24.18
95.59%	0.04411	882.21	54.34%	24.29
95.67%	0.04340	723.35	51.95%	24.38
95.74%	0.04271	533.90	49.69%	24.47
95.81%	0.04205	382.23	47.57%	24.54
95.87%	0.04138	318.31	45.57%	24.59
95.94%	0.04074	254.60	43.68%	24.63
96.01%	0.04009	222.73	41.91%	24.66
96.07%	0.03945	207.63	40.23%	24.67
96.14%	0.03881	204.26	38.64%	24.66
96.20%	0.03819	190.94	37.14%	24.63
96.26%	0.03757	187.84	35.72%	24.59
96.32%	0.03696	184.79	34.38%	24.53
96.38%	0.03636	181.79	33.11%	24.46
96.44%	0.03578	170.37	31.90%	24.36
96.50%	0.03520	167.60	30.76%	24.24
96.56%	0.03464	157.43	29.68%	24.11
96.61%	0.03408	148.19	28.65%	23.96
96.67%	0.03354	139.75	27.68%	23.79
96.72%	0.03302	126.99	26.75%	23.59
97.22%	0.02838	47.29	19.56%	20.57
	0.03575	31.92	14.21%	16.46
	0.04807	20.54	9.38%	12.41
	0.07207	12.01	5.19%	8.51
	0.13302	5.99	1.93%	4.94
	0.31332	3.28	0.20%	2.30
	0.53555	2.69	0.00%	1.49

Target and fitted criteria are as follows:

**GMFCS V**

**Probabilities of survival**

From	To	Target	Fitted	Deviation
2	5	92%	92%	0.008
2	10	82%	81%	0.197
2	15	71%	71%	0.019
2	20	61%	62%	0.096
Total				0.3199

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Survival adjustment	Adjusted life table			
	Mortality	Probability of survival	Life expectancy		Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				0.00%				
0	0.00432	100.00%	87.84	97.37%	0.03053	7.07	100.00%	29.56
1	0.00031	99.57%	87.22	97.37%	0.02662	85.88	96.95%	29.48
2	0.00018	99.54%	86.25	97.37%	0.02650	147.20	94.37%	29.27
3	0.00013	99.52%	85.26	97.37%	0.02645	203.44	91.87%	29.05
4	0.00010	99.51%	84.28	97.37%	0.02642	264.17	89.44%	28.83
5	0.00008	99.50%	83.28	97.37%	0.02640	329.97	87.07%	28.60
6	0.00006	99.49%	82.29	97.37%	0.02638	439.64	84.78%	28.36
7	0.00005	99.48%	81.30	97.37%	0.02637	527.37	82.54%	28.11
8	0.00004	99.48%	80.30	97.37%	0.02636	658.97	80.36%	27.86
9	0.00004	99.47%	79.30	97.37%	0.02636	658.97	78.24%	27.60
10	0.00004	99.47%	78.31	97.37%	0.02636	658.97	76.18%	27.34
11	0.00004	99.47%	77.31	97.37%	0.02636	658.97	74.17%	27.06
12	0.00005	99.46%	76.31	97.37%	0.02637	527.37	72.22%	26.78
13	0.00006	99.46%	75.32	97.37%	0.02638	439.64	70.31%	26.49
14	0.00008	99.45%	74.32	97.37%	0.02640	329.97	68.46%	26.20
15	0.00011	99.44%	73.33	97.37%	0.02643	240.25	66.65%	25.90
16	0.00013	99.43%	72.33	97.37%	0.02645	203.44	64.89%	25.59
17	0.00016	99.42%	71.34	97.37%	0.02648	165.47	63.17%	25.27
18	0.00018	99.40%	70.36	97.37%	0.02650	147.20	61.50%	24.94
19	0.00019	99.38%	69.37	97.37%	0.02651	139.50	59.87%	24.61
20	0.00019	99.37%	68.38	97.37%	0.02651	139.50	58.29%	24.26
21	0.00020	99.35%	67.39		0.02690	134.50	56.74%	23.91
22	0.00020	99.33%	66.41		0.02730	136.49	55.21%	23.56
23	0.00020	99.31%	65.42		0.02771	138.53	53.71%	23.20
24	0.00020	99.29%	64.43		0.02813	140.64	52.22%	22.85
25	0.00021	99.27%	63.45		0.02857	136.06	50.75%	22.50
26	0.00021	99.25%	62.46		0.02902	138.19	49.30%	22.14
27	0.00022	99.23%	61.47		0.02949	134.06	47.87%	21.79
28	0.00023	99.20%	60.49		0.02998	130.35	46.46%	21.44
29	0.00024	99.18%	59.50		0.03048	127.01	45.07%	21.08
30	0.00026	99.16%	58.51		0.03101	119.28	43.69%	20.73
40	0.00060	98.78%	48.71		0.03754	62.57	31.00%	17.22
50	0.00112	97.98%	39.07		0.04718	42.12	20.28%	13.77
60	0.00234	96.48%	29.59		0.06315	26.99	11.69%	10.37
70	0.00600	93.01%	20.48		0.09386	15.64	5.35%	7.08
80	0.02221	83.10%	12.21		0.16957	7.63	1.46%	4.08
90	0.09567	51.06%	6.22		0.38513	4.03	0.08%	1.86
100	0.19897	9.65%	4.02		0.64659	3.25	0.00%	1.24



Target and fitted criteria are as follows:

**Mild+0**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	100%	99%	0.044
0	20	99%	99%	0.009
0	30	98%	98%	0.003
0	40	98%	98%	0.003
Total				0.0584

**Moderate+0**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	99%	98%	0.166
0	20	99%	96%	0.855
0	30	98%	95%	0.930
0	40	89%	93%	1.588
Total				3.5393

**Severe+0**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	91%	93%	0.329
0	20	90%	88%	0.536
0	30	84%	84%	0.087
Total				0.9509

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Adjusted life table					
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00432	100.00%	87.84	0.00%	99.98%	0.00455	1.05	100.00%	86.69
1	0.00031	99.57%	87.22	99.98%	0.00054	1.74	99.55%	86.08	
2	0.00018	99.54%	86.25	99.98%	0.00041	2.28	99.49%	85.13	
3	0.00013	99.52%	85.26	99.98%	0.00036	2.77	99.45%	84.16	
4	0.00010	99.51%	84.28	99.98%	0.00033	3.30	99.41%	83.20	
5	0.00008	99.50%	83.28	99.98%	0.00031	3.88	99.38%	82.22	
6	0.00006	99.49%	82.29	99.98%	0.00029	4.84	99.35%	81.25	
7	0.00005	99.48%	81.30	99.98%	0.00028	5.61	99.32%	80.27	
8	0.00004	99.48%	80.30	99.98%	0.00027	6.76	99.29%	79.29	
9	0.00004	99.47%	79.30	99.98%	0.00027	6.76	99.27%	78.31	
10	0.00004	99.47%	78.31	99.98%	0.00027	6.76	99.24%	77.34	
11	0.00004	99.47%	77.31	99.98%	0.00027	6.76	99.21%	76.36	
12	0.00005	99.46%	76.31	99.98%	0.00028	5.61	99.19%	75.38	
13	0.00006	99.46%	75.32	99.98%	0.00029	4.84	99.16%	74.40	
14	0.00008	99.45%	74.32	99.98%	0.00031	3.88	99.13%	73.42	
15	0.00011	99.44%	73.33	99.98%	0.00034	3.10	99.10%	72.44	
16	0.00013	99.43%	72.33	99.98%	0.00036	2.77	99.07%	71.47	
17	0.00016	99.42%	71.34	99.98%	0.00039	2.44	99.03%	70.49	
18	0.00018	99.40%	70.36	99.98%	0.00041	2.28	98.99%	69.52	
19	0.00019	99.38%	69.37	99.98%	0.00042	2.21	98.95%	68.55	
20	0.00019	99.37%	68.38	99.98%	0.00042	2.21	98.91%	67.58	
21	0.00020	99.35%	67.39	99.98%	0.00043	2.15	98.87%	66.61	
22	0.00020	99.33%	66.41	99.98%	0.00043	2.15	98.82%	65.63	
23	0.00020	99.31%	65.42	99.98%	0.00043	2.15	98.78%	64.66	
24	0.00020	99.29%	64.43	99.98%	0.00043	2.15	98.74%	63.69	
25	0.00021	99.27%	63.45	99.98%	0.00044	2.10	98.70%	62.72	
26	0.00021	99.25%	62.46	99.98%	0.00044	2.10	98.65%	61.74	
27	0.00022	99.23%	61.47	99.98%	0.00045	2.05	98.61%	60.77	
28	0.00023	99.20%	60.49	99.98%	0.00046	2.00	98.57%	59.80	
29	0.00024	99.18%	59.50	99.98%	0.00047	1.96	98.52%	58.83	
30	0.00026	99.16%	58.51	99.98%	0.00049	1.89	98.47%	57.85	
40	0.00060	98.78%	48.71	99.98%	0.00083	1.38	97.88%	48.17	
50	0.00112	97.98%	39.07		0.00141	1.26	96.83%	38.63	
60	0.00234	96.48%	29.59		0.00272	1.16	95.04%	29.26	
70	0.00600	93.01%	20.48		0.00655	1.09	91.22%	20.25	
80	0.02221	83.10%	12.21		0.02313	1.04	80.93%	12.07	
90	0.09567	51.06%	6.22		0.09748	1.02	49.07%	6.14	
100	0.19897	9.65%	4.02		0.20176	1.01	9.02%	3.96	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.84%	0.00589	1.36	100.00%	80.47
99.84%	0.00188	6.07	99.41%	79.95
99.84%	0.00175	9.73	99.22%	79.10
99.84%	0.00170	13.09	99.05%	78.23
99.84%	0.00167	16.72	98.88%	77.37
99.84%	0.00165	20.65	98.72%	76.49
99.84%	0.00163	27.20	98.55%	75.62
99.84%	0.00162	32.44	98.39%	74.74
99.84%	0.00161	40.30	98.23%	73.86
99.84%	0.00161	40.30	98.08%	72.98
99.84%	0.00161	40.30	97.92%	72.10
99.84%	0.00161	40.30	97.76%	71.21
99.84%	0.00162	32.44	97.60%	70.33
99.84%	0.00163	27.20	97.44%	69.44
99.84%	0.00165	20.65	97.28%	68.55
99.84%	0.00168	15.29	97.12%	67.67
99.84%	0.00170	13.09	96.96%	66.78
99.84%	0.00173	10.82	96.80%	65.89
99.84%	0.00175	9.73	96.63%	65.01
99.84%	0.00176	9.27	96.46%	64.12
99.84%	0.00176	9.27	96.29%	63.23
99.84%	0.00177	8.86	96.12%	62.34
99.84%	0.00177	8.86	95.95%	61.45
99.84%	0.00177	8.86	95.78%	60.56
99.84%	0.00177	8.86	95.61%	59.67
99.84%	0.00178	8.48	95.44%	58.77
99.84%	0.00178	8.48	95.27%	57.88
99.84%	0.00179	8.14	95.10%	56.98
99.84%	0.00180	7.83	94.93%	56.08
99.84%	0.00181	7.55	94.76%	55.18
99.84%	0.00183	7.04	94.59%	54.28
99.84%	0.00217	3.62	92.76%	45.25
	0.00308	2.75	90.42%	36.28
	0.00493	2.11	87.08%	27.47
	0.00974	1.62	81.43%	19.00
	0.02848	1.28	69.37%	11.30
	0.10798	1.13	38.91%	5.72
	0.21801	1.10	6.09%	3.67

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
2.87%				
99.21%	0.01223	2.83	100.00%	70.98
99.23%	0.00802	25.88	98.78%	70.85
99.25%	0.00767	42.62	97.98%	70.42
99.27%	0.00741	56.98	97.23%	69.96
99.29%	0.00717	71.69	96.51%	69.48
99.31%	0.00695	86.83	95.82%	68.98
99.33%	0.00673	112.16	95.16%	68.46
99.35%	0.00653	130.57	94.51%	67.92
99.37%	0.00633	158.32	93.90%	67.36
99.39%	0.00615	153.81	93.30%	66.79
99.41%	0.00598	149.43	92.73%	66.20
99.42%	0.00581	145.17	92.18%	65.59
99.44%	0.00565	113.03	91.64%	64.97
99.46%	0.00550	91.68	91.12%	64.34
99.47%	0.00536	67.06	90.62%	63.69
99.49%	0.00524	47.66	90.13%	63.03
99.50%	0.00512	39.35	89.66%	62.36
99.52%	0.00500	31.27	89.20%	61.68
99.53%	0.00488	27.13	88.76%	60.99
99.54%	0.00476	25.05	88.32%	60.29
99.56%	0.00463	24.36	87.90%	59.57
99.57%	0.00451	22.55	87.50%	58.85
99.58%	0.00439	21.93	87.10%	58.11
99.59%	0.00427	21.33	86.72%	57.37
99.60%	0.00415	20.75	86.35%	56.61
99.62%	0.00405	19.27	85.99%	55.84
99.63%	0.00394	18.75	85.64%	55.07
99.64%	0.00384	17.45	85.31%	54.28
99.65%	0.00375	16.29	84.98%	53.49
99.66%	0.00366	15.23	84.66%	52.69
99.67%	0.00358	13.76	84.35%	51.88
99.75%	0.00308	5.13	81.61%	43.46
	0.00421	3.76	78.76%	34.85
	0.00642	2.74	74.88%	26.38
	0.01190	1.98	68.79%	18.23
	0.03210	1.45	57.00%	10.83
	0.11510	1.20	30.32%	5.46
	0.22901	1.15	4.25%	3.49

Target and fitted criteria are as follows:

**Severe+1**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	86%	87%	0.108
0	20	78%	76%	0.296
0	30	69%	67%	0.442
0	40	57%	59%	0.522
Total				1.3681

**Severe+2**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	80%	81%	0.137
0	20	68%	66%	0.818
0	30	52%	53%	0.249
Total				1.2046

**Severe+3**

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	81%	73%	7.575
0	20	52%	53%	0.523
0	30	35%	39%	3.887
0	40	31%	28%	1.761
Total				13.7462

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table					
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00432	100.00%	87.84	0.00%	98.70%	0.01727	4.00	100.00%	48.37
1	0.00031	99.57%	87.22	98.70%	0.01331	42.93	98.27%	48.21	
2	0.00018	99.54%	86.25	98.70%	0.01318	73.23	96.97%	47.85	
3	0.00013	99.52%	85.26	98.70%	0.01313	101.01	95.69%	47.48	
4	0.00010	99.51%	84.28	98.70%	0.01310	131.02	94.43%	47.11	
5	0.00008	99.50%	83.28	98.70%	0.01308	163.53	93.19%	46.73	
6	0.00006	99.49%	82.29	98.70%	0.01306	217.71	91.97%	46.34	
7	0.00005	99.48%	81.30	98.70%	0.01305	261.05	90.77%	45.95	
8	0.00004	99.48%	80.30	98.70%	0.01304	326.07	89.59%	45.55	
9	0.00004	99.47%	79.30	98.70%	0.01304	326.07	88.42%	45.14	
10	0.00004	99.47%	78.31	98.70%	0.01304	326.07	87.27%	44.73	
11	0.00004	99.47%	77.31	98.70%	0.01304	326.07	86.13%	44.32	
12	0.00005	99.46%	76.31	98.70%	0.01305	261.05	85.00%	43.90	
13	0.00006	99.46%	75.32	98.70%	0.01306	217.71	83.90%	43.47	
14	0.00008	99.45%	74.32	98.70%	0.01308	163.53	82.80%	43.04	
15	0.00011	99.44%	73.33	98.70%	0.01311	119.20	81.72%	42.60	
16	0.00013	99.43%	72.33	98.70%	0.01313	101.01	80.64%	42.16	
17	0.00016	99.42%	71.34	98.70%	0.01316	82.26	79.59%	41.72	
18	0.00018	99.40%	70.36	98.70%	0.01318	73.23	78.54%	41.27	
19	0.00019	99.38%	69.37	98.70%	0.01319	69.43	77.50%	40.81	
20	0.00019	99.37%	68.38	98.70%	0.01319	69.43	76.48%	40.35	
21	0.00020	99.35%	67.39	98.70%	0.01320	66.00	75.47%	39.88	
22	0.00020	99.33%	66.41	98.70%	0.01320	66.00	74.48%	39.41	
23	0.00020	99.31%	65.42	98.70%	0.01320	66.00	73.49%	38.93	
24	0.00020	99.29%	64.43	98.70%	0.01320	66.00	72.52%	38.45	
25	0.00021	99.27%	63.45	98.70%	0.01321	62.91	71.56%	37.95	
26	0.00021	99.25%	62.46	98.70%	0.01321	62.91	70.62%	37.45	
27	0.00022	99.23%	61.47	98.70%	0.01322	60.09	69.69%	36.95	
28	0.00023	99.20%	60.49	98.70%	0.01323	57.52	68.77%	36.44	
29	0.00024	99.18%	59.50	98.70%	0.01324	55.17	67.86%	35.92	
30	0.00026	99.16%	58.51	98.70%	0.01326	51.00	66.96%	35.40	
40	0.00060	98.78%	48.71	98.70%	0.01360	22.66	58.52%	29.79	
50	0.00112	97.98%	39.07		0.01732	15.47	50.24%	23.87	
60	0.00234	96.48%	29.59		0.02373	10.14	41.11%	18.03	
70	0.00600	93.01%	20.48		0.03691	6.15	30.69%	12.42	
80	0.02221	83.10%	12.21		0.07405	3.33	18.36%	7.30	
90	0.09567	51.06%	6.22		0.19750	2.06	5.17%	3.55	
100	0.19897	9.65%	4.02		0.35645	1.79	0.18%	2.24	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%			100.00%	37.48
97.95%	0.02475	5.73	100.00%	37.48
97.95%	0.02082	67.16	97.53%	37.42
97.95%	0.02069	114.96	95.49%	37.21
97.95%	0.02064	158.80	93.52%	36.98
97.95%	0.02061	206.15	91.59%	36.75
97.95%	0.02060	257.44	89.70%	36.51
97.95%	0.02058	342.93	87.85%	36.27
97.95%	0.02057	411.32	86.04%	36.02
97.95%	0.02056	513.90	84.28%	35.77
97.95%	0.02056	513.90	82.54%	35.51
97.95%	0.02056	513.90	80.85%	35.24
97.95%	0.02056	513.90	79.18%	34.97
97.95%	0.02057	411.32	77.56%	34.69
97.95%	0.02058	342.93	75.96%	34.41
97.95%	0.02060	257.44	74.40%	34.13
97.95%	0.02062	187.50	72.87%	33.83
97.95%	0.02064	158.80	71.36%	33.53
97.95%	0.02067	129.21	69.89%	33.23
97.95%	0.02069	114.96	68.45%	32.92
97.95%	0.02070	108.96	67.03%	32.61
97.95%	0.02070	108.96	65.64%	32.29
97.95%	0.02071	103.56	64.28%	31.96
97.95%	0.02071	103.56	62.95%	31.62
97.95%	0.02071	103.56	61.65%	31.28
97.95%	0.02071	103.56	60.37%	30.93
97.95%	0.02072	98.68	59.12%	30.58
97.95%	0.02072	98.68	57.89%	30.21
97.95%	0.02073	94.24	56.69%	29.84
97.95%	0.02074	90.18	55.52%	29.46
97.95%	0.02075	86.47	54.37%	29.08
97.95%	0.02077	79.89	53.24%	28.68
97.95%	0.02110	35.17	43.11%	24.28
	0.02669	23.83	34.01%	19.44
	0.03610	15.43	24.97%	14.68
	0.05477	9.13	16.03%	10.08
	0.10401	4.68	7.55%	5.89
	0.25634	2.68	1.31%	2.80
	0.44744	2.25	0.01%	1.79

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%			100.00%	28.27
96.94%	0.03481	8.06	100.00%	28.27
96.94%	0.03092	99.75	96.52%	28.27
96.94%	0.03080	171.10	93.53%	28.16
96.94%	0.03075	236.53	90.65%	28.04
96.94%	0.03072	307.20	87.87%	27.91
96.94%	0.03070	383.75	85.17%	27.78
96.94%	0.03068	511.35	82.55%	27.64
96.94%	0.03067	613.43	80.02%	27.50
96.94%	0.03066	766.54	77.57%	27.36
96.94%	0.03066	766.54	75.19%	27.21
96.94%	0.03066	766.54	72.88%	27.05
96.94%	0.03066	766.54	70.65%	26.89
96.94%	0.03067	613.43	68.48%	26.73
96.94%	0.03068	511.35	66.38%	26.56
96.94%	0.03070	383.75	64.34%	26.38
96.94%	0.03073	279.36	62.37%	26.20
96.94%	0.03075	236.53	60.45%	26.02
96.94%	0.03078	192.36	58.59%	25.83
96.94%	0.03080	171.10	56.79%	25.63
96.94%	0.03081	162.14	55.04%	25.43
96.94%	0.03081	162.14	53.35%	25.22
96.94%	0.03082	154.08	51.70%	25.01
96.94%	0.03082	154.08	50.11%	24.79
96.94%	0.03082	154.08	48.56%	24.56
96.94%	0.03082	154.08	47.07%	24.32
96.94%	0.03083	146.79	45.62%	24.08
96.94%	0.03083	146.79	44.21%	23.83
96.94%	0.03084	140.16	42.85%	23.57
96.94%	0.03085	134.11	41.53%	23.31
96.94%	0.03086	128.56	40.25%	23.03
96.94%	0.03087	118.75	39.00%	22.75
96.94%	0.03120	52.01	28.47%	19.41
	0.03928	35.07	20.03%	15.53
	0.05272	22.53	12.68%	11.70
	0.07880	13.13	6.62%	8.01
	0.14430	6.50	2.24%	4.64
	0.33549	3.51	0.19%	2.15
	0.56983	2.86	0.00%	1.40

Target and fitted criteria are as follows:

**GMFCS V**

**Probabilities of survival**

From	To	Target	Fitted	Deviation
2	5	94%	93%	0.093
2	10	84%	84%	0.001
2	15	76%	77%	0.115
2	20	72%	72%	0.034
Total				0.2425

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				3.47%				
0	0.00432	100.00%	87.84	97.38%	0.03036	7.03	100.00%	45.55
1	0.00031	99.57%	87.22	97.48%	0.02555	82.41	96.96%	45.96
2	0.00018	99.54%	86.25	97.56%	0.02455	136.37	94.49%	46.15
3	0.00013	99.52%	85.26	97.65%	0.02365	181.94	92.17%	46.30
4	0.00010	99.51%	84.28	97.73%	0.02281	228.08	89.99%	46.41
5	0.00008	99.50%	83.28	97.81%	0.02200	275.02	87.94%	46.48
6	0.00006	99.49%	82.29	97.88%	0.02122	353.71	86.00%	46.52
7	0.00005	99.48%	81.30	97.96%	0.02048	409.59	84.18%	46.51
8	0.00004	99.48%	80.30	98.03%	0.01976	494.04	82.45%	46.47
9	0.00004	99.47%	79.30	98.10%	0.01908	476.96	80.82%	46.40
10	0.00004	99.47%	78.31	98.16%	0.01842	460.47	79.28%	46.29
11	0.00004	99.47%	77.31	98.23%	0.01778	444.55	77.82%	46.15
12	0.00005	99.46%	76.31	98.29%	0.01718	343.54	76.44%	45.98
13	0.00006	99.46%	75.32	98.35%	0.01659	276.55	75.12%	45.78
14	0.00008	99.45%	74.32	98.40%	0.01604	200.50	73.88%	45.54
15	0.00011	99.44%	73.33	98.46%	0.01552	141.06	72.69%	45.27
16	0.00013	99.43%	72.33	98.51%	0.01500	115.40	71.56%	44.98
17	0.00016	99.42%	71.34	98.56%	0.01452	90.73	70.49%	44.66
18	0.00018	99.40%	70.36	98.61%	0.01404	77.99	69.47%	44.31
19	0.00019	99.38%	69.37	98.66%	0.01357	71.41	68.49%	43.93
20	0.00019	99.37%	68.38	98.71%	0.01310	68.97	67.56%	43.53
21	0.00020	99.35%	67.39	98.75%	0.01267	63.34	66.68%	43.10
22	0.00020	99.33%	66.41	98.80%	0.01224	61.18	65.83%	42.65
23	0.00020	99.31%	65.42	98.84%	0.01182	59.09	65.03%	42.17
24	0.00020	99.29%	64.43	98.88%	0.01142	57.08	64.26%	41.67
25	0.00021	99.27%	63.45	98.92%	0.01104	52.56	63.52%	41.14
26	0.00021	99.25%	62.46	98.95%	0.01066	50.77	62.82%	40.60
27	0.00022	99.23%	61.47	98.99%	0.01031	46.86	62.15%	40.03
28	0.00023	99.20%	60.49	99.03%	0.00997	43.35	61.51%	39.44
29	0.00024	99.18%	59.50	99.06%	0.00964	40.18	60.90%	38.83
30	0.00026	99.16%	58.51	99.09%	0.00934	35.91	60.31%	38.20
40	0.00060	98.78%	48.71		0.01150	19.17	54.42%	31.79
50	0.00112	97.98%	39.07		0.01471	13.14	47.83%	25.47
60	0.00234	96.48%	29.59		0.02029	8.67	40.33%	19.25
70	0.00600	93.01%	20.48		0.03193	5.32	31.39%	13.27
80	0.02221	83.10%	12.21		0.06570	2.96	20.05%	7.81
90	0.09567	51.06%	6.22		0.18110	1.89	6.43%	3.83
100	0.19897	9.65%	4.02		0.33108	1.66	0.30%	2.42

Target and fitted criteria are as follows:

**Does not lift head, Tube fed**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	68%	66%	0.776
4	15	48%	47%	0.088
4	20	33%	35%	0.942
4	25	25%	26%	0.383
4	30	21%	20%	0.755
Total				2.9440

**Does not lift head, Fed orally by others**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	80%	78%	0.440
4	15	66%	64%	0.476
4	20	51%	53%	0.975
4	25	43%	44%	0.499
4	30	39%	37%	0.632
Total				3.0219

**Does not lift head, Feeds self orally**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.224
4	15	88%	90%	0.399
4	20	88%	87%	0.073
Total				0.6960

Survival adjustment parameters that best replicate the above criteria yields the following life table:

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				1.16%				
0	0.00432	100.00%	87.84	92.72%	0.07685	17.79	100.00%	14.68
1	0.00031	99.57%	87.22	92.80%	0.07229	233.18	92.32%	14.86
2	0.00018	99.54%	86.25	92.88%	0.07133	396.30	85.64%	14.98
3	0.00013	99.52%	85.26	92.97%	0.07047	542.04	79.53%	15.09
4	0.00010	99.51%	84.28	93.05%	0.06962	696.24	73.93%	15.19
5	0.00008	99.50%	83.28	93.13%	0.06880	860.02	68.78%	15.29
6	0.00006	99.49%	82.29	93.21%	0.06799	1,133.15	64.05%	15.39
7	0.00005	99.48%	81.30	93.29%	0.06719	1,343.89	59.69%	15.47
8	0.00004	99.48%	80.30	93.36%	0.06641	1,660.22	55.68%	15.55
9	0.00004	99.47%	79.30	93.44%	0.06564	1,641.04	51.99%	15.62
10	0.00004	99.47%	78.31	93.52%	0.06488	1,622.09	48.57%	15.68
11	0.00004	99.47%	77.31	93.59%	0.06413	1,603.35	45.42%	15.74
12	0.00005	99.46%	76.31	93.66%	0.06340	1,268.05	42.51%	15.78
13	0.00006	99.46%	75.32	93.74%	0.06268	1,044.66	39.81%	15.82
14	0.00008	99.45%	74.32	93.81%	0.06197	774.68	37.32%	15.84
15	0.00011	99.44%	73.33	93.88%	0.06129	557.16	35.01%	15.85
16	0.00013	99.43%	72.33	93.95%	0.06060	466.14	32.86%	15.86
17	0.00016	99.42%	71.34	94.02%	0.05993	374.55	30.87%	15.85
18	0.00018	99.40%	70.36	94.09%	0.05926	329.20	29.02%	15.83
19	0.00019	99.38%	69.37	94.16%	0.05858	308.33	27.30%	15.79
20	0.00019	99.37%	68.38	94.23%	0.05791	304.78	25.70%	15.74
21	0.00020	99.35%	67.39	94.29%	0.05725	286.25	24.21%	15.68
22	0.00020	99.33%	66.41	94.36%	0.05659	282.95	22.83%	15.60
23	0.00020	99.31%	65.42	94.43%	0.05594	279.69	21.53%	15.51
24	0.00020	99.29%	64.43	94.49%	0.05529	276.47	20.33%	15.40
25	0.00021	99.27%	63.45	94.55%	0.05467	260.32	19.21%	15.27
26	0.00021	99.25%	62.46	94.62%	0.05404	257.32	18.16%	15.12
27	0.00022	99.23%	61.47	94.68%	0.05342	242.84	17.17%	14.96
28	0.00023	99.20%	60.49	94.74%	0.05282	229.65	16.26%	14.77
29	0.00024	99.18%	59.50	94.80%	0.05222	217.59	15.40%	14.57
30	0.00026	99.16%	58.51	94.86%	0.05164	198.61	14.59%	14.34
40	0.00060	98.78%	48.71		0.06232	103.86	8.19%	11.89
50	0.00112	97.98%	39.07		0.07807	69.70	4.01%	9.48
60	0.00234	96.48%	29.59		0.10394	44.42	1.59%	7.10
70	0.00600	93.01%	20.48		0.15280	25.47	0.43%	4.81
80	0.02221	83.10%	12.21		0.26841	12.09	0.05%	2.71
90	0.09567	51.06%	6.22		0.57927	6.05	0.00%	1.15
100	0.19897	9.65%	4.02		0.94682	4.76	0.00%	0.84

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.87%				
95.74%	0.04674	10.82	100.00%	23.52
95.78%	0.04253	137.18	95.33%	23.65
95.81%	0.04203	233.53	91.27%	23.68
95.85%	0.04162	320.17	87.44%	23.69
95.89%	0.04123	412.33	83.80%	23.70
95.92%	0.04086	510.69	80.34%	23.70
95.96%	0.04048	674.69	77.06%	23.68
95.99%	0.04012	802.40	73.94%	23.66
96.03%	0.03976	994.04	70.97%	23.63
96.06%	0.03942	985.39	68.15%	23.59
96.10%	0.03907	976.83	65.46%	23.54
96.13%	0.03873	968.33	62.91%	23.47
96.16%	0.03841	768.12	60.47%	23.40
96.20%	0.03808	634.70	58.15%	23.31
96.23%	0.03777	472.13	55.93%	23.22
96.26%	0.03747	340.65	53.82%	23.11
96.30%	0.03717	285.89	51.80%	22.99
96.33%	0.03687	230.45	49.88%	22.86
96.36%	0.03657	203.17	48.04%	22.71
96.39%	0.03626	190.86	46.28%	22.56
96.42%	0.03595	189.21	44.60%	22.39
96.45%	0.03565	178.24	43.00%	22.20
96.49%	0.03534	176.70	41.47%	22.00
96.52%	0.03503	175.17	40.00%	21.79
96.55%	0.03473	173.66	38.60%	21.56
96.58%	0.03444	164.00	37.26%	21.32
96.61%	0.03414	162.58	35.98%	21.07
96.64%	0.03386	153.89	34.75%	20.79
96.66%	0.03357	145.97	33.57%	20.50
96.69%	0.03329	138.72	32.45%	20.20
96.72%	0.03302	127.02	31.36%	19.88
	0.03996	66.59	21.76%	16.51
	0.05019	44.81	13.84%	13.19
	0.06713	28.69	7.70%	9.93
	0.09961	16.60	3.35%	6.78
	0.17921	8.07	0.84%	3.90
	0.40407	4.22	0.04%	1.76
	0.67588	3.40	0.00%	1.18

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
5.80%				
98.39%	0.02039	4.72	100.00%	65.44
98.48%	0.01551	50.03	97.96%	65.79
98.57%	0.01450	80.56	96.44%	65.82
98.65%	0.01362	104.78	95.04%	65.78
98.73%	0.01281	128.10	93.75%	65.68
98.80%	0.01205	150.67	92.55%	65.53
98.87%	0.01134	189.00	91.43%	65.32
98.94%	0.01068	213.53	90.40%	65.06
99.00%	0.01005	251.27	89.43%	64.76
99.06%	0.00947	236.77	88.53%	64.41
99.11%	0.00892	223.10	87.69%	64.02
99.16%	0.00841	210.23	86.91%	63.60
99.21%	0.00793	158.68	86.18%	63.13
99.26%	0.00749	124.79	85.50%	62.63
99.30%	0.00708	88.46	84.86%	62.10
99.34%	0.00670	60.92	84.26%	61.54
99.38%	0.00634	48.76	83.69%	60.95
99.42%	0.00601	37.56	83.16%	60.34
99.45%	0.00569	31.61	82.66%	59.70
99.48%	0.00538	28.32	82.19%	59.04
99.51%	0.00508	26.74	81.75%	58.35
99.54%	0.00481	24.03	81.33%	57.65
99.57%	0.00454	22.70	80.94%	56.93
99.59%	0.00429	21.44	80.57%	56.18
99.61%	0.00405	20.26	80.23%	55.42
99.64%	0.00384	18.28	79.90%	54.65
99.66%	0.00363	17.27	79.60%	53.86
99.68%	0.00344	15.63	79.31%	53.05
99.70%	0.00326	14.19	79.04%	52.23
99.71%	0.00310	12.90	78.78%	51.40
99.73%	0.00295	11.35	78.53%	50.56
	0.00383	6.39	75.98%	42.08
	0.00515	4.60	72.72%	33.74
	0.00766	3.27	68.40%	25.53
	0.01369	2.28	61.92%	17.64
	0.03511	1.58	50.14%	10.47
	0.12100	1.26	25.52%	5.26
	0.23815	1.20	3.26%	3.36

Target and fitted criteria are as follows:

**Lifts head but not chest, Tube fed**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	73%	74%	0.297
4	15	58%	59%	0.085
4	20	48%	47%	0.431
4	25	38%	37%	0.184
4	30	29%	30%	0.248
Total				1.2460

**Lifts head but not chest, Fed orally by others**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	85%	83%	0.611
4	15	73%	71%	0.771
4	20	61%	60%	0.087
4	25	49%	51%	1.199
4	30	44%	44%	0.004
Total				2.6722

**Lifts head but not chest, Feeds self orally**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	93%	0.411
4	15	89%	88%	0.224
4	20	84%	82%	0.294
4	25	74%	78%	1.707
4	30	74%	73%	0.146
Total				2.7827

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				0.56%				
0	0.00432	100.00%	87.84	95.03%	0.05376	12.44	100.00%	19.76
1	0.00031	99.57%	87.22	95.06%	0.04967	160.22	94.62%	19.85
2	0.00018	99.54%	86.25	95.09%	0.04927	273.72	89.92%	19.86
3	0.00013	99.52%	85.26	95.12%	0.04895	376.51	85.49%	19.87
4	0.00010	99.51%	84.28	95.14%	0.04865	486.45	81.31%	19.86
5	0.00008	99.50%	83.28	95.17%	0.04836	604.44	77.35%	19.85
6	0.00006	99.49%	82.29	95.20%	0.04807	801.10	73.61%	19.84
7	0.00005	99.48%	81.30	95.23%	0.04779	955.77	70.08%	19.81
8	0.00004	99.48%	80.30	95.25%	0.04751	1,187.80	66.73%	19.78
9	0.00004	99.47%	79.30	95.28%	0.04725	1,181.17	63.56%	19.75
10	0.00004	99.47%	78.31	95.31%	0.04698	1,174.58	60.55%	19.70
11	0.00004	99.47%	77.31	95.33%	0.04672	1,168.02	57.71%	19.65
12	0.00005	99.46%	76.31	95.36%	0.04647	929.39	55.01%	19.58
13	0.00006	99.46%	75.32	95.38%	0.04622	770.33	52.46%	19.51
14	0.00008	99.45%	74.32	95.41%	0.04598	574.76	50.03%	19.44
15	0.00011	99.44%	73.33	95.44%	0.04575	415.93	47.73%	19.35
16	0.00013	99.43%	72.33	95.46%	0.04552	350.13	45.55%	19.25
17	0.00016	99.42%	71.34	95.49%	0.04529	283.07	43.47%	19.15
18	0.00018	99.40%	70.36	95.51%	0.04506	250.33	41.50%	19.03
19	0.00019	99.38%	69.37	95.54%	0.04482	235.88	39.63%	18.91
20	0.00019	99.37%	68.38	95.56%	0.04457	234.57	37.86%	18.77
21	0.00020	99.35%	67.39	95.59%	0.04433	221.65	36.17%	18.62
22	0.00020	99.33%	66.41	95.61%	0.04408	220.41	34.57%	18.46
23	0.00020	99.31%	65.42	95.64%	0.04384	219.19	33.04%	18.29
24	0.00020	99.29%	64.43	95.66%	0.04359	217.97	31.60%	18.11
25	0.00021	99.27%	63.45	95.68%	0.04336	206.48	30.22%	17.91
26	0.00021	99.25%	62.46	95.71%	0.04312	205.33	28.91%	17.70
27	0.00022	99.23%	61.47	95.73%	0.04289	194.95	27.66%	17.47
28	0.00023	99.20%	60.49	95.76%	0.04266	185.48	26.47%	17.23
29	0.00024	99.18%	59.50	95.78%	0.04243	176.80	25.35%	16.98
30	0.00026	99.16%	58.51	95.80%	0.04222	162.37	24.27%	16.71
40	0.00060	98.78%	48.71		0.05100	85.00	15.17%	13.87
50	0.00112	97.98%	39.07		0.06396	57.10	8.49%	11.07
60	0.00234	96.48%	29.59		0.08531	36.46	4.00%	8.31
70	0.00600	93.01%	20.48		0.12588	20.98	1.37%	5.66
80	0.02221	83.10%	12.21		0.22326	10.05	0.23%	3.22
90	0.09567	51.06%	6.22		0.49058	5.13	0.00%	1.41
100	0.19897	9.65%	4.02		0.80967	4.07	0.00%	0.99

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
96.89%	0.03525	8.16	100.00%	27.21
96.89%	0.03136	101.17	96.48%	27.19
96.89%	0.03124	173.54	93.45%	27.05
96.89%	0.03119	239.91	90.53%	26.91
96.89%	0.03116	311.59	87.71%	26.76
96.89%	0.03114	389.25	84.97%	26.60
96.89%	0.03112	518.68	82.33%	26.44
96.89%	0.03111	622.22	79.77%	26.28
96.89%	0.03110	777.53	77.28%	26.10
96.89%	0.03110	777.53	74.88%	25.93
96.89%	0.03110	777.53	72.55%	25.74
96.89%	0.03110	777.53	70.30%	25.55
96.89%	0.03111	622.22	68.11%	25.36
96.89%	0.03112	518.68	65.99%	25.15
96.89%	0.03114	389.25	63.94%	24.95
96.89%	0.03117	283.36	61.95%	24.73
96.89%	0.03119	239.91	60.01%	24.51
96.89%	0.03122	195.11	58.14%	24.28
96.89%	0.03124	173.54	56.33%	24.05
96.89%	0.03125	164.46	54.57%	23.81
96.89%	0.03125	164.46	52.86%	23.56
96.89%	0.03126	156.28	51.21%	23.31
96.89%	0.03126	156.28	49.61%	23.04
96.89%	0.03126	156.28	48.06%	22.77
96.89%	0.03126	156.28	46.56%	22.49
96.89%	0.03127	148.89	45.10%	22.20
96.89%	0.03127	148.89	43.69%	21.90
96.89%	0.03128	142.16	42.33%	21.59
96.89%	0.03129	136.02	41.00%	21.27
96.89%	0.03130	130.40	39.72%	20.94
96.89%	0.03131	120.44	38.48%	20.60
	0.03790	63.17	27.21%	17.11
	0.04763	42.53	17.73%	13.68
	0.06375	27.24	10.16%	10.30
	0.09473	15.79	4.62%	7.04
	0.17102	7.70	1.24%	4.05
	0.38797	4.06	0.07%	1.84
	0.65099	3.27	0.00%	1.23

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
98.81%	0.01619	3.75	100.00%	48.89
98.81%	0.01222	39.43	98.38%	48.68
98.81%	0.01210	67.20	97.18%	48.28
98.81%	0.01205	92.67	96.00%	47.86
98.81%	0.01202	120.17	94.85%	47.44
98.81%	0.01200	149.97	93.71%	47.01
98.81%	0.01198	199.63	92.58%	46.58
98.81%	0.01197	239.36	91.47%	46.14
98.81%	0.01196	298.95	90.38%	45.69
98.81%	0.01196	298.95	89.30%	45.24
98.81%	0.01196	298.95	88.23%	44.78
98.81%	0.01196	298.95	87.18%	44.31
98.81%	0.01197	239.36	86.13%	43.84
98.81%	0.01198	199.63	85.10%	43.37
98.81%	0.01200	149.97	84.08%	42.89
98.81%	0.01203	109.34	83.07%	42.40
98.81%	0.01205	92.67	82.07%	41.91
98.81%	0.01208	75.48	81.09%	41.42
98.81%	0.01210	67.20	80.11%	40.92
98.81%	0.01211	63.72	79.14%	40.41
98.81%	0.01211	63.72	78.18%	39.90
98.81%	0.01212	60.58	77.23%	39.38
98.81%	0.01212	60.58	76.30%	38.86
98.81%	0.01212	60.58	75.37%	38.33
98.81%	0.01212	60.58	74.46%	37.80
98.81%	0.01213	57.74	73.56%	37.25
98.81%	0.01213	57.74	72.67%	36.70
98.81%	0.01214	55.16	71.78%	36.15
98.81%	0.01215	52.81	70.91%	35.59
98.81%	0.01216	50.65	70.05%	35.02
98.81%	0.01218	46.83	69.20%	34.44
	0.01491	24.85	60.53%	28.65
	0.01897	16.93	51.20%	22.95
	0.02590	11.07	41.11%	17.34
	0.04004	6.67	29.90%	11.94
	0.07931	3.57	17.15%	7.01
	0.20782	2.17	4.44%	3.40
	0.37241	1.87	0.13%	2.15

Target and fitted criteria are as follows:

**Lifts head and chest, Tube fed**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	77%	80%	1.092
4	15	65%	66%	0.250
4	20	59%	55%	2.785
4	25	48%	46%	1.257
4	30	35%	38%	2.154
Total				7.5385

**Lifts head and chest, Fed orally by others**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	90%	87%	0.799
4	15	81%	78%	1.117
4	20	73%	70%	1.559
4	25	62%	62%	0.003
4	30	52%	55%	2.301
Total				5.7800

**Lifts head and chest, Feeds self orally**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	96%	95%	0.122
4	15	93%	91%	0.482
4	20	91%	87%	1.780
4	25	85%	83%	0.373
4	30	75%	80%	2.839
Total				5.5966

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00432	100.00%	87.84	0.00%				
1	0.00031	99.57%	87.22	96.34%	0.04081	9.45	100.00%	23.90
2	0.00018	99.54%	86.25	96.34%	0.03695	119.19	95.92%	23.90
3	0.00013	99.52%	85.26	96.34%	0.03682	204.57	92.37%	23.80
4	0.00010	99.51%	84.28	96.34%	0.03677	282.88	88.97%	23.69
5	0.00008	99.50%	83.28	96.34%	0.03675	367.46	85.70%	23.57
6	0.00006	99.49%	82.29	96.34%	0.03673	459.08	82.55%	23.45
7	0.00005	99.48%	81.30	96.34%	0.03671	611.79	79.52%	23.33
8	0.00004	99.48%	80.30	96.34%	0.03670	733.95	76.60%	23.20
9	0.00004	99.47%	79.30	96.34%	0.03669	917.20	73.79%	23.06
10	0.00004	99.47%	78.31	96.34%	0.03669	917.20	71.08%	22.92
11	0.00004	99.47%	77.31	96.34%	0.03669	917.20	68.48%	22.77
12	0.00005	99.46%	76.31	96.34%	0.03669	917.20	65.96%	22.62
13	0.00006	99.46%	75.32	96.34%	0.03670	733.95	63.54%	22.47
14	0.00008	99.45%	74.32	96.34%	0.03671	611.79	61.21%	22.30
15	0.00011	99.44%	73.33	96.34%	0.03673	459.08	58.96%	22.13
16	0.00013	99.43%	72.33	96.34%	0.03676	334.14	56.80%	21.96
17	0.00016	99.42%	71.34	96.34%	0.03677	282.88	54.71%	21.78
18	0.00018	99.40%	70.36	96.34%	0.03680	230.02	52.70%	21.59
19	0.00019	99.38%	69.37	96.34%	0.03682	204.57	50.76%	21.39
20	0.00019	99.37%	68.38	96.34%	0.03683	193.86	48.89%	21.19
21	0.00020	99.35%	67.39	96.34%	0.03683	193.86	47.09%	20.99
22	0.00020	99.33%	66.41	96.34%	0.03684	184.21	45.36%	20.77
23	0.00020	99.31%	65.42	96.34%	0.03684	184.21	43.68%	20.54
24	0.00020	99.29%	64.43	96.34%	0.03684	184.21	42.07%	20.31
25	0.00021	99.27%	63.45	96.34%	0.03684	184.21	40.52%	20.07
26	0.00021	99.25%	62.46	96.34%	0.03685	175.48	39.03%	19.82
27	0.00022	99.23%	61.47	96.34%	0.03685	175.48	37.59%	19.56
28	0.00023	99.20%	60.49	96.34%	0.03686	167.55	36.21%	19.28
29	0.00024	99.18%	59.50	96.34%	0.03687	160.31	34.87%	19.00
30	0.00026	99.16%	58.51	96.34%	0.03688	153.67	33.59%	18.71
40	0.00060	98.78%	48.71		0.03690	141.92	32.35%	18.41
50	0.00112	97.98%	39.07		0.04461	74.35	21.48%	15.29
60	0.00234	96.48%	29.59		0.05600	50.00	12.95%	12.21
70	0.00600	93.01%	20.48		0.07479	31.96	6.71%	9.18
80	0.02221	83.10%	12.21		0.11069	18.45	2.65%	6.26
90	0.09567	51.06%	6.22		0.19778	8.91	0.57%	3.58
100	0.19897	9.65%	4.02		0.44054	4.60	0.02%	1.60
					0.73229	3.68	0.00%	1.09

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
97.77%	0.02651	6.14	100.00%	34.43
97.77%	0.02259	72.87	97.35%	34.36
97.77%	0.02246	124.79	95.15%	34.14
97.77%	0.02241	172.41	93.01%	33.91
97.77%	0.02238	223.85	90.93%	33.68
97.77%	0.02236	279.56	88.89%	33.44
97.77%	0.02235	372.42	86.90%	33.19
97.77%	0.02234	446.71	84.96%	32.94
97.77%	0.02233	558.15	83.06%	32.68
97.77%	0.02233	558.15	81.21%	32.41
97.77%	0.02233	558.15	79.40%	32.14
97.77%	0.02233	558.15	77.62%	31.87
97.77%	0.02234	446.71	75.89%	31.58
97.77%	0.02235	372.42	74.20%	31.29
97.77%	0.02236	279.56	72.54%	31.00
97.77%	0.02239	203.58	70.92%	30.69
97.77%	0.02241	172.41	69.33%	30.38
97.77%	0.02244	140.27	67.77%	30.07
97.77%	0.02246	124.79	66.25%	29.75
97.77%	0.02247	118.28	64.76%	29.42
97.77%	0.02247	118.28	63.31%	29.09
97.77%	0.02248	112.41	61.89%	28.74
97.77%	0.02248	112.41	60.50%	28.39
97.77%	0.02248	112.41	59.14%	28.03
97.77%	0.02248	112.41	57.81%	27.67
97.77%	0.02249	107.11	56.51%	27.29
97.77%	0.02249	107.11	55.24%	26.91
97.77%	0.02250	102.28	53.99%	26.52
97.77%	0.02251	97.88	52.78%	26.10
97.77%	0.02252	93.84	51.59%	25.70
97.77%	0.02254	86.70	50.43%	25.29
	0.02736	45.61	39.33%	21.02
	0.03449	30.79	28.91%	16.82
	0.04640	19.83	19.37%	12.69
	0.06966	11.61	10.95%	8.70
	0.12898	5.81	4.20%	5.05
	0.30539	3.19	0.48%	2.36
	0.52328	2.63	0.00%	1.53

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.14%	0.01288	2.98	100.00%	56.07
99.14%	0.00890	28.72	98.71%	55.79
99.14%	0.00877	48.75	97.83%	55.29
99.14%	0.00873	67.12	96.97%	54.77
99.14%	0.00870	86.95	96.13%	54.25
99.14%	0.00868	108.44	95.29%	53.72
99.14%	0.00866	144.26	94.47%	53.19
99.14%	0.00865	172.91	93.65%	52.65
99.14%	0.00864	215.89	92.84%	52.10
99.14%	0.00864	215.89	92.04%	51.55
99.14%	0.00864	215.89	91.24%	51.00
99.14%	0.00864	215.89	90.45%	50.47
99.14%	0.00865	172.91	89.67%	49.88
99.14%	0.00866	144.26	88.90%	49.30
99.14%	0.00868	108.44	88.13%	48.73
99.14%	0.00871	79.14	87.36%	48.15
99.14%	0.00873	67.12	86.60%	47.57
99.14%	0.00875	54.72	85.85%	46.98
99.14%	0.00877	48.75	85.10%	46.39
99.14%	0.00878	46.23	84.35%	45.80
99.14%	0.00878	46.23	83.61%	45.20
99.14%	0.00879	43.97	82.87%	44.60
99.14%	0.00879	43.97	82.15%	43.99
99.14%	0.00879	43.97	81.42%	43.37
99.14%	0.00879	43.97	80.71%	42.76
99.14%	0.00880	41.93	80.00%	42.13
99.14%	0.00880	41.93	79.29%	41.50
99.14%	0.00881	40.06	78.59%	40.86
99.14%	0.00882	38.37	77.90%	40.22
99.14%	0.00883	36.81	77.21%	39.58
99.14%	0.00885	34.05	76.53%	38.92
	0.01092	18.20	69.43%	32.39
	0.01399	12.49	61.41%	25.95
	0.01933	8.26	52.21%	19.62
	0.03055	5.09	41.11%	13.52
	0.06339	2.85	26.74%	7.96
	0.17656	1.85	8.88%	3.91
	0.32406	1.63	0.45%	2.47

Target and fitted criteria are as follows:

**Full rolling, Tube fed**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	87%	87%	0.000
4	15	81%	77%	1.548
4	20	73%	69%	2.264
4	25	60%	61%	0.297
4	30	52%	55%	1.268
Total				5.3770

**Full rolling, Fed orally by others**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.050
4	15	91%	90%	0.153
4	20	86%	86%	0.029
4	25	82%	81%	0.048
4	30	76%	77%	0.270
Total				0.5502

**Full rolling, Feeds self orally**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	98%	98%	0.000
4	15	97%	96%	0.043
4	20	95%	95%	0.010
4	25	93%	93%	0.000
4	30	91%	91%	0.019
Total				0.0717

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				0.00%				
0	0.00432	100.00%	87.84	97.71%	0.02712	6.28	100.00%	33.82
1	0.00031	99.57%	87.22	97.71%	0.02320	74.84	97.29%	33.75
2	0.00018	99.54%	86.25	97.71%	0.02307	128.18	95.03%	33.54
3	0.00013	99.52%	85.26	97.71%	0.02302	177.10	92.84%	33.32
4	0.00010	99.51%	84.28	97.71%	0.02299	229.94	90.70%	33.10
5	0.00008	99.50%	83.28	97.71%	0.02297	287.18	88.62%	32.86
6	0.00006	99.49%	82.29	97.71%	0.02295	382.58	86.58%	32.62
7	0.00005	99.48%	81.30	97.71%	0.02295	458.90	84.59%	32.38
8	0.00004	99.48%	80.30	97.71%	0.02294	573.38	82.65%	32.13
9	0.00004	99.47%	79.30	97.71%	0.02294	573.38	80.76%	31.87
10	0.00004	99.47%	78.31	97.71%	0.02294	573.38	78.90%	31.61
11	0.00004	99.47%	77.31	97.71%	0.02294	573.38	77.09%	31.34
12	0.00005	99.46%	76.31	97.71%	0.02295	458.90	75.33%	31.06
13	0.00006	99.46%	75.32	97.71%	0.02295	382.58	73.60%	30.78
14	0.00008	99.45%	74.32	97.71%	0.02297	287.18	71.91%	30.49
15	0.00011	99.44%	73.33	97.71%	0.02300	209.12	70.26%	30.19
16	0.00013	99.43%	72.33	97.71%	0.02302	177.10	68.64%	29.89
17	0.00016	99.42%	71.34	97.71%	0.02305	144.08	67.06%	29.59
18	0.00018	99.40%	70.36	97.71%	0.02307	128.18	65.51%	29.27
19	0.00019	99.38%	69.37	97.71%	0.02308	121.48	64.00%	28.95
20	0.00019	99.37%	68.38	97.71%	0.02308	121.48	62.52%	28.62
21	0.00020	99.35%	67.39	97.71%	0.02309	115.46	61.08%	28.29
22	0.00020	99.33%	66.41	97.71%	0.02309	115.46	59.67%	27.94
23	0.00020	99.31%	65.42	97.71%	0.02309	115.46	58.29%	27.59
24	0.00020	99.29%	64.43	97.71%	0.02309	115.46	56.95%	27.23
25	0.00021	99.27%	63.45	97.71%	0.02310	110.01	55.63%	26.87
26	0.00021	99.25%	62.46	97.71%	0.02310	110.01	54.35%	26.49
27	0.00022	99.23%	61.47	97.71%	0.02311	105.05	53.09%	26.10
28	0.00023	99.20%	60.49	97.71%	0.02312	100.53	51.86%	25.71
29	0.00024	99.18%	59.50	97.71%	0.02313	96.38	50.67%	25.31
30	0.00026	99.16%	58.51	97.71%	0.02315	89.04	49.49%	24.89
40	0.00060	98.78%	48.71		0.02810	46.83	38.34%	20.69
50	0.00112	97.98%	39.07		0.03540	31.61	27.95%	16.56
60	0.00234	96.48%	29.59		0.04760	20.34	18.52%	12.49
70	0.00600	93.01%	20.48		0.07140	11.90	10.31%	8.56
80	0.02221	83.10%	12.21		0.13190	5.94	3.86%	4.97
90	0.09567	51.06%	6.22		0.31113	3.25	0.42%	2.32
100	0.19897	9.65%	4.02		0.53215	2.67	0.00%	1.50

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.03%	0.01393	3.23	100.00%	53.58
99.03%	0.00996	32.14	98.61%	53.33
99.03%	0.00983	54.63	97.62%	52.86
99.03%	0.00978	75.26	96.66%	52.38
99.03%	0.00975	97.54	95.72%	51.89
99.03%	0.00973	121.68	94.78%	51.40
99.03%	0.00971	161.91	93.86%	50.90
99.03%	0.00970	194.09	92.95%	50.40
99.03%	0.00969	242.37	92.05%	49.88
99.03%	0.00969	242.37	91.16%	49.37
99.03%	0.00969	242.37	90.27%	48.85
99.03%	0.00969	242.37	89.40%	48.32
99.03%	0.00970	194.09	88.53%	47.79
99.03%	0.00971	161.91	87.67%	47.25
99.03%	0.00973	121.68	86.82%	46.71
99.03%	0.00976	88.76	85.97%	46.16
99.03%	0.00978	75.26	85.13%	45.61
99.03%	0.00981	61.33	84.30%	45.06
99.03%	0.00983	54.63	83.47%	44.50
99.03%	0.00984	51.81	82.65%	43.94
99.03%	0.00984	51.81	81.84%	43.37
99.03%	0.00985	49.27	81.03%	42.80
99.03%	0.00985	49.27	80.24%	42.22
99.03%	0.00985	49.27	79.45%	41.63
99.03%	0.00985	49.27	78.66%	41.04
99.03%	0.00986	46.97	77.89%	40.45
99.03%	0.00986	46.97	77.12%	39.84
99.03%	0.00987	44.88	76.36%	39.24
99.03%	0.00988	42.97	75.61%	38.62
99.03%	0.00989	41.22	74.86%	38.00
99.03%	0.00991	38.13	74.12%	37.38
	0.01219	20.32	66.46%	31.10
	0.01558	13.91	57.95%	24.92
	0.02143	9.16	48.38%	18.83
	0.03358	5.60	37.15%	12.97
	0.06846	3.08	23.22%	7.63
	0.18653	1.95	7.13%	3.73
	0.33947	1.71	0.30%	2.36

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.67%	0.00762	1.76	100.00%	72.40
99.67%	0.00362	11.68	99.24%	71.95
99.67%	0.00349	19.39	98.88%	71.21
99.67%	0.00344	26.47	98.53%	70.46
99.67%	0.00341	34.11	98.19%	69.70
99.67%	0.00339	42.39	97.86%	68.93
99.67%	0.00337	56.18	97.53%	68.17
99.67%	0.00336	67.22	97.20%	67.40
99.67%	0.00335	83.78	96.87%	66.62
99.67%	0.00335	83.78	96.55%	65.84
99.67%	0.00335	83.78	96.22%	65.06
99.67%	0.00335	83.78	95.90%	64.28
99.67%	0.00336	67.22	95.58%	63.49
99.67%	0.00337	56.18	95.26%	62.71
99.67%	0.00339	42.39	94.94%	61.92
99.67%	0.00342	31.10	94.62%	61.13
99.67%	0.00344	26.47	94.29%	60.33
99.67%	0.00347	21.69	93.97%	59.54
99.67%	0.00349	19.39	93.64%	58.75
99.67%	0.00350	18.42	93.32%	57.95
99.67%	0.00350	18.42	92.99%	57.15
99.67%	0.00351	17.55	92.66%	56.35
99.67%	0.00351	17.55	92.34%	55.55
99.67%	0.00351	17.55	92.01%	54.74
99.67%	0.00351	17.55	91.69%	53.93
99.67%	0.00352	16.76	91.37%	53.12
99.67%	0.00352	16.76	91.05%	52.31
99.67%	0.00353	16.05	90.73%	51.49
99.67%	0.00354	15.39	90.41%	50.67
99.67%	0.00355	14.79	90.09%	49.85
99.67%	0.00357	13.73	89.77%	49.03
	0.00458	7.63	86.27%	40.80
	0.00608	5.43	81.88%	32.71
	0.00889	3.80	76.22%	24.75
	0.01546	2.58	68.00%	17.10
	0.03807	1.71	53.83%	10.14
	0.12683	1.33	26.22%	5.08
	0.24715	1.24	3.05%	3.24

Target and fitted criteria are as follows:

**Walks unaided, Tube fed**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.102
4	15	93%	89%	1.464
4	20	84%	85%	0.076
4	25	79%	80%	0.282
Total				1.9228

**Walks unaided, Fed orally by others**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	96%	97%	0.221
4	15	95%	95%	0.016
4	20	95%	93%	0.296
4	25	95%	91%	1.457
4	30	86%	89%	1.243
Total				3.2336

**Walks unaided, Feeds self orally**

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	99%	99%	0.002
4	15	99%	98%	0.110
4	20	98%	97%	0.103
4	25	96%	96%	0.000
4	30	94%	95%	0.117
Total				0.3312

Survival adjustment parameters that best replicate the at

Age	Regular life table			Adjusted life table				
	Mortality	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
				0.00%				
0	0.00432	100.00%	87.84	98.98%	0.01444	3.34	100.00%	52.45
1	0.00031	99.57%	87.22	98.98%	0.01047	33.79	98.56%	52.21
2	0.00018	99.54%	86.25	98.98%	0.01035	57.47	97.52%	51.76
3	0.00013	99.52%	85.26	98.98%	0.01030	79.20	96.51%	51.29
4	0.00010	99.51%	84.28	98.98%	0.01027	102.66	95.52%	50.82
5	0.00008	99.50%	83.28	98.98%	0.01025	128.08	94.54%	50.34
6	0.00006	99.49%	82.29	98.98%	0.01023	170.44	93.57%	49.86
7	0.00005	99.48%	81.30	98.98%	0.01022	204.33	92.61%	49.37
8	0.00004	99.48%	80.30	98.98%	0.01021	255.17	91.67%	48.87
9	0.00004	99.47%	79.30	98.98%	0.01021	255.17	90.73%	48.37
10	0.00004	99.47%	78.31	98.98%	0.01021	255.17	89.81%	47.87
11	0.00004	99.47%	77.31	98.98%	0.01021	255.17	88.89%	47.35
12	0.00005	99.46%	76.31	98.98%	0.01022	204.33	87.98%	46.84
13	0.00006	99.46%	75.32	98.98%	0.01023	170.44	87.08%	46.32
14	0.00008	99.45%	74.32	98.98%	0.01025	128.08	86.19%	45.79
15	0.00011	99.44%	73.33	98.98%	0.01028	93.42	85.31%	45.26
16	0.00013	99.43%	72.33	98.98%	0.01030	79.20	84.43%	44.72
17	0.00016	99.42%	71.34	98.98%	0.01033	64.53	83.56%	44.18
18	0.00018	99.40%	70.36	98.98%	0.01035	57.47	82.70%	43.64
19	0.00019	99.38%	69.37	98.98%	0.01036	54.50	81.85%	43.09
20	0.00019	99.37%	68.38	98.98%	0.01036	54.50	81.00%	42.54
21	0.00020	99.35%	67.39	98.98%	0.01037	51.83	80.16%	41.98
22	0.00020	99.33%	66.41	98.98%	0.01037	51.83	79.33%	41.41
23	0.00020	99.31%	65.42	98.98%	0.01037	51.83	78.51%	40.84
24	0.00020	99.29%	64.43	98.98%	0.01037	51.83	77.69%	40.26
25	0.00021	99.27%	63.45	98.98%	0.01037	49.40	76.89%	39.68
26	0.00021	99.25%	62.46	98.98%	0.01037	49.40	76.09%	39.09
27	0.00022	99.23%	61.47	98.98%	0.01038	47.20	75.30%	38.49
28	0.00023	99.20%	60.49	98.98%	0.01039	45.19	74.52%	37.89
29	0.00024	99.18%	59.50	98.98%	0.01040	43.35	73.74%	37.28
30	0.00026	99.16%	58.51	98.98%	0.01042	40.09	72.98%	36.67
40	0.00060	98.78%	48.71		0.01281	21.35	65.07%	30.51
50	0.00112	97.98%	39.07		0.01634	14.59	56.35%	24.44
60	0.00234	96.48%	29.59		0.02244	9.59	46.64%	18.47
70	0.00600	93.01%	20.48		0.03504	5.84	35.37%	12.72
80	0.02221	83.10%	12.21		0.07092	3.19	21.69%	7.48
90	0.09567	51.06%	6.22		0.19134	2.00	6.41%	3.65
100	0.19897	9.65%	4.02		0.34692	1.74	0.25%	2.31

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.58%	0.00852	1.97	100.00%	69.00
99.58%	0.00453	14.61	99.15%	68.59
99.58%	0.00440	24.45	98.70%	67.90
99.58%	0.00435	33.47	98.26%	67.19
99.58%	0.00432	43.22	97.84%	66.49
99.58%	0.00430	53.77	97.41%	65.77
99.58%	0.00428	71.36	96.99%	65.05
99.58%	0.00427	85.43	96.58%	64.33
99.58%	0.00426	106.54	96.17%	63.61
99.58%	0.00426	106.54	95.76%	62.88
99.58%	0.00426	106.54	95.35%	62.14
99.58%	0.00426	106.54	94.94%	61.41
99.58%	0.00427	85.43	94.54%	60.67
99.58%	0.00428	71.36	94.13%	59.92
99.58%	0.00430	53.77	93.73%	59.18
99.58%	0.00433	39.38	93.33%	58.43
99.58%	0.00435	33.47	92.92%	57.69
99.58%	0.00438	27.38	92.52%	56.94
99.58%	0.00440	24.45	92.11%	56.18
99.58%	0.00441	23.22	91.71%	55.43
99.58%	0.00441	23.22	91.30%	54.67
99.58%	0.00442	22.11	90.90%	53.91
99.58%	0.00442	22.11	90.50%	53.15
99.58%	0.00442	22.11	90.10%	52.38
99.58%	0.00442	22.11	89.70%	51.62
99.58%	0.00443	21.10	89.30%	50.84
99.58%	0.00443	21.10	88.91%	50.07
99.58%	0.00444	20.19	88.51%	49.29
99.58%	0.00445	19.35	88.12%	48.50
99.58%	0.00446	18.59	87.73%	47.72
99.58%	0.00448	17.23	87.34%	46.93
	0.00567	9.45	83.11%	39.06
	0.00744	6.64	77.93%	31.31
	0.01069	4.57	71.42%	23.69
	0.01806	3.01	62.37%	16.36
	0.04244	1.91	47.74%	9.69
	0.13540	1.42	21.79%	4.84
	0.26041	1.31	2.21%	3.07

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.82%	0.00613	1.42	100.00%	78.69
99.82%	0.00213	6.86	99.39%	78.17
99.82%	0.00200	11.09	99.18%	77.34
99.82%	0.00195	14.98	98.98%	76.49
99.82%	0.00192	19.17	98.79%	75.64
99.82%	0.00190	23.71	98.60%	74.78
99.82%	0.00188	31.28	98.41%	73.93
99.82%	0.00187	37.34	98.22%	73.06
99.82%	0.00186	46.42	98.04%	72.20
99.82%	0.00186	46.42	97.86%	71.33
99.82%	0.00186	46.42	97.68%	70.46
99.82%	0.00186	46.42	97.50%	69.59
99.82%	0.00187	37.34	97.31%	68.72
99.82%	0.00188	31.28	97.13%	67.85
99.82%	0.00190	23.71	96.95%	66.98
99.82%	0.00193	17.52	96.77%	66.10
99.82%	0.00195	14.98	96.58%	65.23
99.82%	0.00198	12.35	96.39%	64.36
99.82%	0.00200	11.09	96.20%	63.48
99.82%	0.00201	10.56	96.01%	62.61
99.82%	0.00201	10.56	95.82%	61.73
99.82%	0.00202	10.08	95.62%	60.86
99.82%	0.00202	10.08	95.43%	59.98
99.82%	0.00202	10.08	95.24%	59.10
99.82%	0.00202	10.08	95.05%	58.22
99.82%	0.00203	9.65	94.86%	57.33
99.82%	0.00203	9.65	94.66%	56.45
99.82%	0.00204	9.26	94.47%	55.56
99.82%	0.00205	8.90	94.28%	54.68
99.82%	0.00206	8.57	94.09%	53.79
99.82%	0.00208	7.99	93.89%	52.90
	0.00278	4.64	91.71%	44.03
	0.00384	3.43	88.80%	35.30
	0.00593	2.54	84.78%	26.72
	0.01119	1.87	78.34%	18.48
	0.03091	1.39	65.50%	10.98
	0.11277	1.18	35.46%	5.54
	0.22541	1.13	5.15%	3.55