
Life expectancies for individuals with cerebral palsy

Corey Plover

February 2019

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 - Life expectancy for cerebral palsy cohorts (additional years, relative to base population)

Study cohort	Age 0	Age 5	Age 10	Age 15	Age 20	Age 25
Crichton (1995) - Canadian population						
Cerebral palsy - Hemiplegia	95.4%	96.0%	96.5%	96.9%	97.2%	97.5%
Cerebral palsy - Other	80.7%	85.9%	89.7%	92.2%	94.0%	95.1%
Epilepsy - None	85.7%	88.8%	91.2%	92.9%	94.1%	95.0%
Epilepsy - Other	78.2%	82.0%	85.0%	87.4%	89.2%	90.5%
Mental retardation - Moderate	90.5%	93.4%	95.4%	96.7%	97.5%	98.1%
Mental retardation - Severe	57.7%	66.0%	72.8%	78.0%	81.8%	84.6%
Plioplys (1998) - US population						
Group 1	60.8%	77.9%	87.5%	92.4%	94.7%	95.6%
Group 2	62.0%	63.7%	65.2%	66.4%	67.4%	68.0%
Group 3	80.9%	87.3%	91.2%	93.4%	94.7%	95.3%
Blair et al (2001) - Australian population						
Disability score (1 to 3)	97.8%	97.8%	97.9%	98.0%	98.0%	98.1%
Disability score (4 to 6)	95.6%	96.5%	97.2%	97.7%	98.0%	98.3%
Disability score (7 to 9)	67.2%	74.0%	79.3%	83.3%	86.1%	88.1%
Disability score (10 to 12)	32.2%	36.3%	40.3%	44.0%	47.4%	50.1%
"Severe" CP	57.6%	64.0%	68.5%	71.6%	73.3%	73.8%
Hutton et al (2002) - UK population						
Severe ambulatory (low bw)	91.0%	91.6%	92.1%	92.5%	92.8%	93.0%
Severe ambulatory (normal bw)	85.9%	86.7%	87.4%	87.9%	88.3%	88.6%
Severe motor (low bs)	67.5%	68.2%	68.9%	69.5%	69.9%	70.3%
Severe motor (normal bs)	59.4%	60.4%	61.3%	62.1%	62.7%	63.2%
Severe motor & cogn. (low bw)	47.4%	49.2%	50.9%	52.3%	53.5%	54.3%
Severe motor & cogn. (normal bw)	40.0%	42.4%	44.5%	46.4%	47.9%	49.0%
Severe all (low bw)	30.5%	34.1%	37.3%	40.2%	42.5%	44.1%
Severe all (normal bw)	24.8%	29.2%	33.3%	37.0%	40.0%	41.9%
Hutton et al (2006) - UK population						
Severe ambulation	37.7%	42.3%	46.6%	50.6%	54.2%	57.2%
Severe dexterity	35.9%	39.3%	42.7%	45.9%	48.8%	51.3%
Severe cognitive	33.1%	38.8%	44.2%	49.2%	53.7%	57.3%
Severe visual	51.1%	55.4%	59.3%	62.7%	65.7%	68.1%
Severe all	27.0%	30.1%	33.2%	36.3%	39.2%	41.8%
Westbom et al (2011) - Swedish pop.						
GMFCS V	35.6%	36.3%	37.0%	37.5%	37.6%	37.6%
Reid et al (2012) - Australian population						
Mild+0	99.4%	99.4%	99.4%	99.4%	99.4%	99.5%
Moderate+0	92.8%	93.0%	93.2%	93.4%	93.6%	93.8%
Severe+0	80.0%	81.9%	83.5%	84.7%	85.5%	86.1%
Severe+1	57.3%	58.4%	59.5%	60.6%	61.6%	62.5%
Severe+2	43.3%	44.4%	45.4%	46.2%	47.0%	47.5%
Severe+3	34.0%	35.3%	36.7%	38.0%	39.3%	40.5%
Touyama et al (2013) - Japan population						
GMFCS V	53.2%	57.3%	60.7%	63.4%	65.4%	66.6%

Table 1.1 - Life expectancy for cerebral palsy cohorts (additional years, relative to base population)

Study cohort						
Strauss et al (2014) - US population						
Cannot lift head (tube fed)	18.5%	20.5%	22.4%	24.3%	26.0%	27.3%
Cannot lift head (fed by others)	29.5%	31.5%	33.4%	35.1%	36.6%	37.7%
Lifts head or chest (tube fed)	30.0%	31.1%	32.2%	33.3%	34.2%	34.8%
Lifts head or chest (fed by others)	42.7%	43.8%	44.8%	45.8%	46.6%	47.1%
Rolls/sits (tube fed)	41.9%	43.1%	44.1%	45.1%	45.9%	46.5%
Rolls/sits (fed by others)	64.8%	65.6%	66.3%	67.0%	67.5%	67.8%
Himmelman et al (2015) - Swedish pop.						
CP Type (Hagberg - Tetraplegia)	29.6%	30.8%	31.9%	33.0%	34.0%	34.9%
CP Type (Hagberg - Dyskinetic)	67.6%	68.3%	68.9%	69.4%	69.8%	70.1%
CP Type (SCPE - Dyskinetic)	71.4%	72.0%	72.5%	73.0%	73.3%	73.6%
CP Type (SCPE - BSCP)	83.6%	84.0%	84.3%	84.5%	84.7%	84.8%
Severe motor	59.4%	60.3%	61.1%	61.7%	62.3%	62.6%
Severe mental retardation	56.5%	57.4%	58.3%	59.1%	59.7%	60.1%
Epilepsy	65.9%	67.1%	68.2%	69.1%	69.7%	70.1%

- 1.2. All above estimates are non gender-differentiated life expectancies that express the fitted life expectancies for cerebral palsy cohorts relative to the base population *for that particular study*.
- 1.3. This "percentage of base" method allows the application of any cerebral palsy cohort results to any target population and can be used to adjust for country of residence, gender, or ethnicity. In particular, it can be used to adjust for prospective life expectancies accepted by the Australian High Court in their decision of *Golden Eagle International Trading Pty Ltd v Zhang* [2007] HCA 15.
- 1.4. An example of this is shown below and applies the cerebral palsy cohorts of the Reid et al (2012) study to the prospective Australian population. These figures would generally be regarded as the best estimate of life expectancies for individuals with cerebral palsy in Australia due to the recency of the Reid study, its specificity to the Australian population and health care outcomes, and its application of prospective population projections as per the High Court's ruling:

Table 1.4 - Prospective life expectancies for Reid et al (2012) cerebral palsy cohorts

Study cohort	Age 0	Age 5	Age 10	Age 15	Age 20	Age 25
Reid et al (2012) cohorts applied to Australian, medium series prospective projections						
Base population (males) ⁽¹⁾	82.8	78.1	73.1	68.1	63.1	58.2
Mild+0	82.3	77.6	72.7	67.7	62.8	57.9
Moderate+0	76.8	72.6	68.1	63.6	59.1	54.6
Severe+0	66.2	64.0	61.0	57.7	54.0	50.1
Severe+1	47.5	45.6	43.5	41.3	38.9	36.4
Severe+2	35.9	34.7	33.2	31.5	29.7	27.7
Severe+3	28.2	27.6	26.8	25.9	24.8	23.6
Base population (females) ⁽¹⁾	85.9	81.2	76.2	71.2	66.2	61.3
Mild+0	85.3	80.7	75.7	70.8	65.8	60.9
Moderate+0	79.6	75.5	71.0	66.5	62.0	57.4
Severe+0	68.7	66.5	63.6	60.3	56.6	52.7
Severe+1	49.2	47.4	45.4	43.1	40.8	38.3
Severe+2	37.2	36.0	34.5	32.9	31.1	29.1
Severe+3	29.2	28.7	27.9	27.0	26.0	24.8

⁽¹⁾ Obtained from https://cumsar.com.au/docs/multipliers_ready_reckoner_2019.pdf

- 1.5. While these tables may be useful estimating the life expectancy of an individual with cerebral palsy it is crucial to recognise they are only *average* life expectancies, fitted to the cohorts involved in the particular study. 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

- 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:

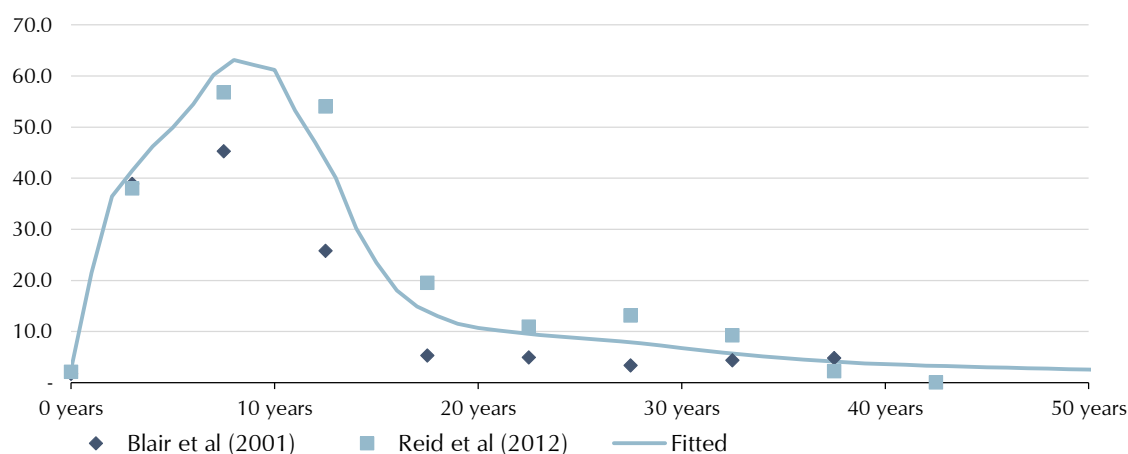
Table 2.3 - Summary of cerebral palsy papers

Author (and year)	Publication	Country	Classification
Crichton et al (1995)	The Life-expectancy of persons with cerebral palsy	Canada	Motor function Epilepsy Mental retardation
Plioplys et al (1998)	Survival rates among children with severe neurological disabilities	U.S.	Motor function Feeding skill
Blair et al (2001)	Life expectancy among people with cerebral palsy in Western Australia	Australia	Intellectual ability Motor severity
Hutton et al (2002)	Effects of cognitive, motor, and sensory disabilities on survival in cerebral palsy	U.K.	Ambulation Cognitive ability Visual disability
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
Himmelmann et al (2015)	Survival with cerebral palsy over five decades in western Sweden	Sweden	Motor impairment Cognitive ability Epilepsy

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 each relevant country of study:
- Australia - "Life Tables, States, Territories and Australia, 2014-2016", Australian Bureau of Statistics.
 - Canada - "Life Tables, Canada, Provinces and Territories, 2014-2016", Statistics Canada.
 - Japan - "Abridged Life Tables for Japan, 2016", Ministry of Health, Labour and Welfare.
 - Sweden - "Life table by sex and age. 1970-2017", Statistics Sweden.
 - United Kingdom - "National life tables, United Kingdom, 2015-17", Office for National Statistics.
 - United States - "United States Life Tables, 2014", National Vital Statistics Reports.
- 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 graph below compares the mortality ratios from the Blair and Reid papers to fitted ratios under the above approach:

Graph 3.5 - 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 Crichton et al (1995)

- 4.1 In their 1995 paper, Crichton et al investigated the survival patterns in persons with cerebral palsy for 3,187 individuals born with cerebral palsy in British Columbia between 1952 and 1989.
- 4.2 This paper used a clinical categorisation of cerebral palsy, epilepsy and mental retardation.

Table 4.2 - Crichton et al (1995) classification of individuals

Disability	Description
Cerebral palsy	Spastic quadriplegia and diplegia Hemiplegia or monoplegia Athetosis Other forms
Epilepsy	Generalized seizures Partial epilepsy with and without secondard generalization Infantile spasms Unclassified forms
Mental retardation	Non existant or mild Moderate Severe or profound

- 4.3 The relevant statistics from the Crichton paper are replicated below:

Table 4.3 - Probabilities of survival from one decade to the next

Categorisation	Survival probabilities			
	10 years	20 years	30 years	40 years
Overall	93.8%	89.6%	87.4%	85.2%
Cerebral palsy				
Hemiplegia or monopolegia	97.7%	96.2%	95.2%	93.5%
Other	92.4%	87.3%	84.8%	82.2%
Epilepsy				
None	94.5%	92.1%	90.3%	87.4%
Any	91.3%	81.0%	77.6%	77.6%
Mental retardation				
Non-existent to moderate	95.5%	93.5%	92.4%	90.4%
Severe to profound	85.3%	72.6%	66.6%	63.3%

5 Plioplys et al (1998)

- 5.1 In their 1998 paper, Plioplys et al investigated the survival patterns in persons with cerebral palsy for 447 individuals born with cerebral palsy in Chicago between 1986 and 1996.
- 5.2 This paper used the categorisation of a earlier Californian study with additional focus on clinical parameters the presence of other significant diseases and the use of gastrostomy and nasogastric feeding tubes.

Table 5.2 - Plioplys et al (1998) classification of individuals

Disability	Description
Group 1	Tube fed, Not rolling, No hand or arm use
Group 2	Tube fed, Not rolling, Hand or arm use present
Group 3	Fed by others, Not rolling, No hand or arm use
Group 4	Fed by others, Not rolling, Hand or arm use present
Group 5	Fed by others, Able to roll, Hand or arm use present
Group 6	Tube fed, Able to roll, Hand or arm use present

- 5.3 The relevant statistics from the Plioplys paper are replicated below:

Table 5.3 - Survival in Groups 1 - 3 (transcribed from graph)

Categorisation	Survival probabilities					
	5 years	10 years	15 years	20 years	25 years	30 years
Group 1	~75%	~66%	~63%	~60%	~59%	~58%
Group 2	~89%	~84%	~84%	~84%	~73%	~68%
Group 3	~91%	~89%	~81%	~81%	~81%	~81%
Group 4	n.a	n.a	n.a	n.a	n.a	n.a
Group 5	n.a	n.a	n.a	n.a	n.a	n.a
Group 6	n.a	n.a	n.a	n.a	n.a	n.a

6 Blair et al (2001)

- 6.1 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.
- 6.2 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 6.2 - 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		

- 6.3 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).
- 6.4 The relevant statistics from the Blair paper are replicated below:

Table 6.4.1 - 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%
Severe CP	~85%	~78%	~73%	~69%	~65%	

Table 6.4.2 - 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)

7 Hutton et al (2002)

- 7.1 In their 2002 paper, Hutton et al investigated the survival patterns in persons with cerebral palsy for 1,668 individuals born with cerebral palsy in United Kingdom between 1966 and 1989.
- 7.2 This paper found that severity of cognitive, motor (manual and ambulatory), and visual disabilities have independent effects on the probability of survival.

Table 7.2 - Hutton et al (2002) 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	Severe bilateral disability

- 7.3 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.
- 7.4 The relevant statistics from the Hutton paper are replicated below:

Table 7.4 - Severity category according to functional disability (transcribed from graphs)

Categorisation	Survival probabilities		
	10 years	20 years	30 years
Multivariate analysis			
No severe disabilities, low bw	~99.6%	~99%	~98%
Only severe ambulatory disabilities, low bw	~98%	~96%	~94%
Only severe ambulatory disabilities, normal bw	~97%	~94%	~91%
Severe motor disabilities, low bw	~94%	~86%	~79%
Severe motor disabilities, normal bw	~91%	~81%	~72%
Severe motor and cognitive disabilities, low bw	~85%	~70%	~59%
Severe motor and cognitive disabilities, normal bw	~80%	~62%	~50%
Severe motor, cognitive and visual disabilities, low bw	~70%	~49%	~37%
Severe motor, cognitive and visual disabilities, normal bw	~62%	~40%	~29%

8 Hutton et al (2006)

- 8.1 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.
- 8.2 This paper found that severity of cognitive, motor (manual and ambulatory), and visual disabilities have independent effects on the probability of survival.

Table 8.2 - 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

- 8.3 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.
- 8.4 The relevant statistics from the Hutton paper are replicated below:

Table 8.4 - 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%

9 Westbom et al (2011)

- 9.1 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.
- 9.2 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:
- 9.3 The relevant statistics from the Westbom paper are replicated below:

Table 9.3 - 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%

10 Reid et al (2012)

10.1 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.

10.2 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 10.2 - 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

10.3 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.

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

Table 10.4 - Survival probabilities by motor impairment and additional impairments

Motor severity + n additional impairments ¹	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%

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

11 Touyama et al (2013)

- 11.1 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.
- 11.2 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.
- 11.3 The relevant statistics from the Touyama paper are replicated below:

Table 11.3 - 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%

12 Strauss et al (2014)

12.1 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.

12.2 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 12.2 - 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	

12.3 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

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

Table 12.4 - (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%

12.5 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).

13 Himmelmann et al (2015)

- 13.1 In their 2015 paper, Himmelmann et al investigated the survival patterns in persons with cerebral palsy for 1,856 individuals born with cerebral palsy in Sweden between 1959 and 2002.
- 13.2 The statistical analysis of the Himmelmann paper was performed with respect to Hagberg classifications (tetraplegia, hemiplegia, etc), SCPE classificatoins (dyskinetic CP, bilateral spastic CP, etc), GMFCS level, motor impairment, cognitive impairment and epilepsy
- 13.3 The relevant statistics from the Westbom paper are replicated below:

Table 13.3 - Survival probabilities by CP type (transcribed from graph)

Severity	Survival probabilities (from age 2)			
	10 years	20 years	30 years	40 years
CP Type (Hagberg)				
Tetraplegia	~76%	~51%	~35%	~19%
Dyskinetic	~96%	~86%	~77%	~71%
CP Type (SCPE)				
Dyskinetic	~98%	~88%	~81%	~74%
Bilateral spastic cerebral palsy	~98%	~93%	~90%	~86%
Severe motor impairment	~91%	~80%	~71%	~62%
Severe mental retardation	~88%	~76%	~69%	~59%
Epilepsy	~92%	~81%	~76%	~70%

A Demonstrated parameter fitting

Age	Regular life table (Australia, 2014-16)					Adjusted life table				
	Male	Female	Mortality	Probability of survival	Life expect.	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expect.
0	0.00357	0.00330	0.00344	100.00%	82.38	99.47%	0.00872	2.54	100.00%	68.80
1	0.00029	0.00022	0.00026	99.66%	81.66	99.48%	0.00547	21.47	99.13%	68.41
2	0.00016	0.00013	0.00015	99.63%	80.69	99.49%	0.00528	36.42	98.58%	67.78
3	0.00014	0.00011	0.00013	99.62%	79.70	99.49%	0.00518	41.43	98.06%	67.14
4	0.00012	0.00010	0.00011	99.60%	78.71	99.50%	0.00508	46.21	97.56%	66.48
5	0.00011	0.00009	0.00010	99.59%	77.72	99.51%	0.00499	49.93	97.06%	65.82
6	0.00010	0.00008	0.00009	99.58%	76.72	99.52%	0.00490	54.49	96.58%	65.15
7	0.00009	0.00007	0.00008	99.57%	75.73	99.53%	0.00482	60.21	96.10%	64.47
8	0.00008	0.00007	0.00008	99.57%	74.74	99.53%	0.00474	63.15	95.64%	63.78
9	0.00008	0.00007	0.00008	99.56%	73.74	99.54%	0.00466	62.15	95.19%	63.08
10	0.00008	0.00007	0.00008	99.55%	72.75	99.55%	0.00459	61.17	94.74%	62.37
11	0.00009	0.00008	0.00009	99.54%	71.75	99.56%	0.00452	53.23	94.31%	61.66
12	0.00010	0.00009	0.00010	99.54%	70.76	99.56%	0.00446	46.98	93.88%	60.93
13	0.00012	0.00010	0.00011	99.53%	69.77	99.57%	0.00441	40.07	93.46%	60.20
14	0.00016	0.00013	0.00015	99.52%	68.77	99.58%	0.00437	30.17	93.05%	59.47
15	0.00022	0.00015	0.00019	99.50%	67.78	99.58%	0.00435	23.49	92.64%	58.73
16	0.00030	0.00018	0.00024	99.48%	66.80	99.59%	0.00433	18.06	92.24%	57.98
17	0.00038	0.00020	0.00029	99.46%	65.81	99.60%	0.00432	14.89	91.84%	57.23
18	0.00045	0.00021	0.00033	99.43%	64.83	99.60%	0.00429	13.01	91.44%	56.48
19	0.00052	0.00022	0.00037	99.40%	63.85	99.61%	0.00427	11.54	91.05%	55.72
20	0.00056	0.00023	0.00040	99.36%	62.87	99.62%	0.00423	10.71	90.66%	54.96
21	0.00059	0.00023	0.00041	99.32%	61.90	99.62%	0.00418	10.21	90.28%	54.19
22	0.00061	0.00024	0.00043	99.28%	60.92	99.63%	0.00414	9.74	89.90%	53.41
23	0.00063	0.00025	0.00044	99.24%	59.95	99.63%	0.00409	9.30	89.53%	52.63
24	0.00064	0.00026	0.00045	99.19%	58.98	99.64%	0.00405	8.99	89.16%	51.85
25	0.00065	0.00027	0.00046	99.15%	58.00	99.65%	0.00400	8.69	88.80%	51.06
26	0.00066	0.00028	0.00047	99.10%	57.03	99.65%	0.00395	8.41	88.45%	50.26
27	0.00068	0.00029	0.00049	99.06%	56.06	99.66%	0.00391	8.06	88.10%	49.46
28	0.00070	0.00031	0.00051	99.01%	55.08	99.66%	0.00387	7.67	87.75%	48.65
29	0.00073	0.00033	0.00053	98.96%	54.11	99.67%	0.00385	7.26	87.41%	47.84
30	0.00077	0.00036	0.00057	98.91%	53.14	99.67%	0.00383	6.77	87.08%	47.02
31	0.00082	0.00039	0.00061	98.85%	52.17	99.68%	0.00381	6.30	86.74%	46.20
32	0.00087	0.00043	0.00065	98.79%	51.20	99.68%	0.00381	5.86	86.41%	45.37
33	0.00093	0.00046	0.00070	98.73%	50.23	99.69%	0.00380	5.47	86.08%	44.54
34	0.00099	0.00050	0.00075	98.66%	49.27	99.69%	0.00380	5.10	85.76%	43.71
35	0.00105	0.00054	0.00080	98.58%	48.30	99.70%	0.00380	4.78	85.43%	42.88
36	0.00111	0.00058	0.00085	98.51%	47.34	99.70%	0.00380	4.50	85.11%	42.04
37	0.00117	0.00062	0.00090	98.42%	46.38	99.71%	0.00381	4.25	84.78%	41.20
38	0.00124	0.00067	0.00096	98.34%	45.42	99.71%	0.00382	4.00	84.46%	40.35
39	0.00132	0.00072	0.00102	98.24%	44.47	99.72%	0.00384	3.76	84.14%	39.51
40	0.00142	0.00078	0.00110	98.14%	43.51		0.00398	3.62	83.81%	38.66
50	0.00298	0.00180	0.00239	96.59%	34.12		0.00606	2.54	79.88%	30.30
60	0.00675	0.00398	0.00537	93.23%	25.15		0.01035	1.93	73.91%	22.31
70	0.01613	0.00994	0.01304	85.99%	16.79		0.02050	1.57	64.18%	14.87
80	0.04793	0.03188	0.03991	68.61%	9.59		0.05297	1.33	46.41%	8.45
90	0.15455	0.12362	0.13909	31.16%	4.58		0.16644	1.20	17.20%	3.98
100	0.34389	0.31851	0.33120	2.52%	2.20		0.38816	1.17	0.82%	1.85

Target and fitted criteria are as follows:

Overall

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	93.8%	93.6%	0.004
0	20	89.6%	89.9%	0.009
0	30	87.4%	87.2%	0.003
0	40	85.2%	85.2%	0.000
Total				0.0166

Cerebral palsy - Hemiplegia or monoplegia

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	97.7%	97.7%	0.000
0	20	96.2%	96.3%	0.001
0	30	95.2%	94.9%	0.007
0	40	93.5%	93.6%	0.002
Total				0.0103

Cerebral palsy - Other

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	92.4%	92.3%	0.002
0	10	87.3%	87.6%	0.010
0	15	84.8%	84.5%	0.011
0	20	82.2%	82.3%	0.002
Total				0.0248

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

Age	Regular life table (Canada Life Tables, 2014/2016)					Adjusted life table					Adjusted life table						
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy		
0	0.00477	0.00425	0.00451	100.00%	81.83	4.42%	99.27%	0.01180	2.62	100.00%	71.20	3.33%	99.80%	0.00651	1.44	100.00%	78.04
1	0.00029	0.00025	0.00027	99.55%	81.20		99.30%	0.00726	26.90	98.82%	71.04		99.81%	0.00221	8.19	99.35%	77.55
2	0.00020	0.00018	0.00019	99.52%	80.22		99.33%	0.00688	36.19	98.10%	70.56		99.81%	0.00207	10.88	99.13%	76.72
3	0.00015	0.00013	0.00014	99.50%	79.24		99.36%	0.00653	46.64	97.43%	70.05		99.82%	0.00196	13.97	98.92%	75.88
4	0.00012	0.00010	0.00011	99.49%	78.25		99.39%	0.00622	56.53	96.79%	69.50		99.82%	0.00186	16.95	98.73%	75.02
5	0.00010	0.00009	0.00010	99.48%	77.26		99.42%	0.00593	62.46	96.19%	68.93		99.83%	0.00179	18.85	98.55%	74.16
6	0.00008	0.00008	0.00008	99.47%	76.26		99.44%	0.00566	70.76	95.62%	68.34		99.84%	0.00172	21.50	98.37%	73.29
7	0.00008	0.00007	0.00008	99.46%	75.27		99.47%	0.00541	72.12	95.08%	67.73		99.84%	0.00166	22.13	98.20%	72.42
8	0.00008	0.00007	0.00008	99.45%	74.28		99.49%	0.00517	68.98	94.56%	67.10		99.85%	0.00161	21.43	98.04%	71.54
9	0.00008	0.00007	0.00008	99.45%	73.28		99.51%	0.00495	65.97	94.07%	66.44		99.85%	0.00156	20.75	97.88%	70.65
10	0.00009	0.00008	0.00009	99.44%	72.29		99.53%	0.00474	55.80	93.61%	65.77		99.86%	0.00152	17.84	97.73%	69.76
11	0.00010	0.00009	0.00010	99.43%	71.29		99.55%	0.00455	47.86	93.17%	65.08		99.86%	0.00148	15.57	97.58%	68.87
12	0.00012	0.00010	0.00011	99.42%	70.30		99.57%	0.00437	39.68	92.74%	64.38		99.87%	0.00145	13.16	97.44%	67.97
13	0.00014	0.00012	0.00013	99.41%	69.31		99.59%	0.00420	32.28	92.34%	63.66		99.87%	0.00142	10.95	97.29%	67.02
14	0.00018	0.00014	0.00016	99.40%	68.32		99.61%	0.00405	25.29	91.95%	62.92		99.87%	0.00141	8.81	97.16%	66.16
15	0.00024	0.00017	0.00021	99.38%	67.33		99.63%	0.00392	19.12	91.58%	62.18		99.88%	0.00141	6.89	97.02%	65.25
16	0.00032	0.00021	0.00027	99.36%	66.34		99.64%	0.00382	14.40	91.22%	61.42		99.88%	0.00143	5.41	96.88%	64.35
17	0.00040	0.00024	0.00032	99.33%	65.36		99.66%	0.00371	11.61	90.87%	60.65		99.89%	0.00145	4.53	96.74%	63.44
18	0.00048	0.00026	0.00037	99.30%	64.38		99.68%	0.00361	9.77	90.53%	59.88		99.89%	0.00146	3.95	96.60%	62.53
19	0.00056	0.00027	0.00042	99.27%	63.40		99.69%	0.00352	8.47	90.21%	59.09		99.89%	0.00147	3.54	96.46%	61.62
20	0.00063	0.00028	0.00046	99.22%	62.43		99.70%	0.00342	7.51	89.89%	58.30		99.90%	0.00147	3.24	96.32%	60.71
21	0.00070	0.00029	0.00050	99.18%	61.46		99.72%	0.00333	6.72	89.58%	57.50		99.90%	0.00148	2.99	96.18%	59.80
22	0.00075	0.00031	0.00053	99.13%	60.49		99.73%	0.00324	6.11	89.28%	56.69		99.90%	0.00148	2.80	96.04%	58.89
23	0.00078	0.00032	0.00055	99.08%	59.52		99.74%	0.00314	5.70	88.99%	55.87		99.91%	0.00147	2.67	95.89%	57.97
24	0.00080	0.00033	0.00057	99.02%	58.55		99.75%	0.00304	5.38	88.71%	55.04		99.91%	0.00146	2.58	95.75%	57.06
25	0.00081	0.00034	0.00058	98.97%	57.58		99.76%	0.00294	5.11	88.45%	54.21		99.91%	0.00144	2.50	95.61%	56.14
26	0.00082	0.00035	0.00059	98.91%	56.62		99.77%	0.00284	4.86	88.19%	53.37		99.92%	0.00142	2.42	95.48%	55.22
27	0.00083	0.00037	0.00060	98.85%	55.65		99.78%	0.00276	4.60	87.93%	52.52		99.92%	0.00140	2.34	95.34%	54.30
28	0.00085	0.00038	0.00062	98.79%	54.68		99.79%	0.00268	4.36	87.69%	51.66		99.92%	0.00139	2.26	95.21%	53.37
29	0.00087	0.00040	0.00064	98.73%	53.72		99.80%	0.00261	4.11	87.46%	50.80		99.92%	0.00139	2.18	95.07%	52.45
30	0.00090	0.00042	0.00066	98.67%	52.75		99.81%	0.00255	3.86	87.23%	49.93		99.93%	0.00139	2.10	94.94%	51.52
40	0.00126	0.00077	0.00102	97.92%	43.11		99.88%	0.00221	2.18	85.23%	40.99		99.95%	0.00153	1.51	93.63%	42.17
50	0.00297	0.00197	0.00247	96.38%	33.71			0.00400	1.62	82.77%	32.04			0.00313	1.27	91.63%	32.97
60	0.00716	0.00460	0.00588	92.84%	24.78			0.00797	1.35	78.34%	23.55			0.00678	1.15	87.59%	24.23
70	0.01834	0.01192	0.01513	84.58%	16.64			0.01824	1.21	69.60%	15.80			0.01647	1.09	78.94%	16.27
80	0.04999	0.03429	0.04214	65.73%	9.80			0.04742	1.13	51.94%	9.29			0.04442	1.05	60.29%	9.57
90	0.14500	0.10953	0.12727	30.93%	4.83			0.13797	1.08	22.58%	4.55			0.13188	1.04	27.42%	4.71
100	0.34979	0.30602	0.32791	2.84%	2.25			0.35089	1.07	1.69%	2.10			0.33782	1.03	2.30%	2.18

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
7.17%				
98.28%	0.02164	4.80	100.00%	66.04
98.40%	0.01624	60.15	97.84%	66.49
98.52%	0.01502	79.03	96.25%	66.58
98.62%	0.01390	99.31	94.80%	66.59
98.72%	0.01289	117.15	93.48%	66.52
98.81%	0.01196	125.85	92.28%	66.38
98.90%	0.01109	138.63	91.18%	66.18
98.98%	0.01030	137.28	90.16%	65.92
99.05%	0.00956	127.51	89.24%	65.60
99.12%	0.00888	118.44	88.38%	65.23
99.18%	0.00826	97.19	87.60%	64.81
99.24%	0.00768	80.89	86.87%	64.34
99.30%	0.00716	65.05	86.21%	63.84
99.35%	0.00667	51.31	85.59%	63.29
99.39%	0.00623	38.94	85.02%	62.71
99.44%	0.00584	28.49	84.49%	62.10
99.48%	0.00550	20.74	84.00%	61.47
99.51%	0.00518	16.17	83.53%	60.80
99.55%	0.00488	13.18	83.10%	60.12
99.58%	0.00460	11.08	82.70%	59.41
99.61%	0.00434	9.54	82.32%	58.68
99.64%	0.00410	8.28	81.96%	57.93
99.67%	0.00388	7.31	81.62%	57.17
99.69%	0.00366	6.65	81.31%	56.39
99.71%	0.00345	6.10	81.01%	55.60
99.73%	0.00325	5.66	80.73%	54.79
99.75%	0.00307	5.25	80.47%	53.96
99.77%	0.00291	4.84	80.22%	53.13
99.79%	0.00276	4.48	79.99%	52.28
99.80%	0.00262	4.13	79.77%	51.43
99.82%	0.00251	3.80	79.56%	50.56
99.91%	0.00189	1.86	77.89%	41.54
	0.00359	1.45	75.92%	32.48
	0.00740	1.26	72.19%	23.87
	0.01740	1.15	64.57%	16.02
	0.04600	1.09	48.72%	9.42
	0.13509	1.06	21.64%	4.63
	0.34470	1.05	1.71%	2.14

Target and fitted criteria are as follows:

Overall

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	93.8%	93.6%	0.004
0	20	89.6%	89.9%	0.009
0	30	87.4%	87.2%	0.003
0	40	85.2%	85.2%	0.000
Total				0.0166

Epilepsy - None

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	94.5%	95.1%	0.040
0	10	92.1%	91.9%	0.003
0	15	90.3%	89.6%	0.050
0	20	87.4%	87.8%	0.022
Total				0.1141

Epilepsy - Other

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	91.3%	88.9%	0.646
0	20	81.0%	82.7%	0.377
0	30	77.6%	78.8%	0.200
0	40	77.6%	76.2%	0.249
Total				1.4724

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

Age	Regular life table (Canada Life Tables, 2014/2016)					Adjusted life table					Adjusted life table					Adjusted life table							
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy			
0	0.00477	0.00425	0.00451	100.00%	81.83	4.42%	99.27%	0.01180	2.62	100.00%	71.20	5.68%	99.00%	0.01447	3.21	100.00%	70.13	4.71%	98.63%	0.01819	4.03	100.00%	63.98
1	0.00029	0.00025	0.00027	99.55%	81.20		99.30%	0.00726	26.90	98.82%	71.04		99.06%	0.00971	35.95	98.55%	70.15		98.69%	0.01336	49.50	98.18%	64.16
2	0.00020	0.00018	0.00019	99.52%	80.22		99.33%	0.00688	36.19	98.10%	70.56		99.11%	0.00909	47.85	97.60%	69.83		98.75%	0.01267	66.68	96.87%	64.02
3	0.00015	0.00013	0.00014	99.50%	79.24		99.36%	0.00653	46.64	97.43%	70.05		99.16%	0.00854	60.98	96.71%	69.47		98.81%	0.01203	85.95	95.64%	63.84
4	0.00012	0.00010	0.00011	99.49%	78.25		99.39%	0.00622	56.53	96.79%	69.50		99.21%	0.00803	73.00	95.88%	69.06		98.87%	0.01144	104.03	94.49%	63.61
5	0.00010	0.00009	0.00010	99.48%	77.26		99.42%	0.00593	62.46	96.19%	68.93		99.25%	0.00757	79.64	95.11%	68.62		98.92%	0.01090	114.69	93.41%	63.34
6	0.00008	0.00008	0.00008	99.47%	76.26		99.44%	0.00566	70.76	95.62%	68.34		99.30%	0.00713	89.08	94.39%	68.14		98.97%	0.01037	129.66	92.39%	63.03
7	0.00008	0.00007	0.00008	99.46%	75.27		99.47%	0.00541	72.12	95.08%	67.73		99.34%	0.00672	89.62	93.72%	67.62		99.02%	0.00988	131.78	91.43%	62.69
8	0.00008	0.00007	0.00008	99.45%	74.28		99.49%	0.00517	68.98	94.56%	67.10		99.37%	0.00634	84.59	93.09%	67.08		99.07%	0.00942	125.62	90.53%	62.31
9	0.00008	0.00007	0.00008	99.45%	73.28		99.51%	0.00495	65.97	94.07%	66.44		99.41%	0.00599	79.84	92.50%	66.50		99.11%	0.00898	119.76	89.68%	61.90
10	0.00009	0.00008	0.00009	99.44%	72.29		99.53%	0.00474	55.80	93.61%	65.77		99.44%	0.00566	66.62	91.95%	65.90		99.15%	0.00857	100.86	88.87%	61.45
11	0.00010	0.00009	0.00010	99.43%	71.29		99.55%	0.00455	47.86	93.17%	65.08		99.47%	0.00536	56.37	91.43%	65.27		99.19%	0.00818	86.14	88.11%	60.98
12	0.00012	0.00010	0.00011	99.42%	70.30		99.57%	0.00437	39.68	92.74%	64.38		99.50%	0.00507	46.11	90.94%	64.62		99.23%	0.00782	71.07	87.39%	60.48
13	0.00014	0.00012	0.00013	99.41%	69.31		99.59%	0.00420	32.28	92.34%	63.66		99.53%	0.00481	37.00	90.47%	63.95		99.27%	0.00747	57.50	86.70%	59.95
14	0.00018	0.00014	0.00016	99.40%	68.32		99.61%	0.00405	25.29	91.95%	62.92		99.56%	0.00457	28.59	90.04%	63.26		99.30%	0.00716	44.74	86.06%	59.40
15	0.00024	0.00017	0.00021	99.38%	67.33		99.63%	0.00392	19.12	91.58%	62.18		99.58%	0.00437	21.31	89.63%	62.54		99.33%	0.00687	33.53	85.44%	58.82
16	0.00032	0.00021	0.00027	99.36%	66.34		99.64%	0.00382	14.40	91.22%	61.42		99.61%	0.00419	15.82	89.24%	61.82		99.36%	0.00662	24.98	84.85%	58.24
17	0.00040	0.00024	0.00032	99.33%	65.36		99.66%	0.00371	11.61	90.87%	60.65		99.63%	0.00402	12.57	88.86%	61.07		99.39%	0.00638	19.92	84.29%	57.61
18	0.00048	0.00026	0.00037	99.30%	64.38		99.68%	0.00361	9.77	90.53%	59.88		99.65%	0.00386	10.44	88.50%	60.32		99.42%	0.00614	16.60	83.75%	56.98
19	0.00056	0.00027	0.00042	99.27%	63.40		99.69%	0.00352	8.47	90.21%	59.09		99.67%	0.00371	8.94	88.16%	59.55		99.45%	0.00591	14.25	83.24%	56.33
20	0.00063	0.00028	0.00046	99.22%	62.43		99.70%	0.00342	7.51	89.89%	58.30		99.69%	0.00356	7.83	87.84%	58.77		99.48%	0.00569	12.52	82.75%	55.66
21	0.00070	0.00029	0.00050	99.18%	61.46		99.72%	0.00333	6.72	89.58%	57.50		99.71%	0.00343	6.92	87.52%	57.98		99.50%	0.00549	11.09	82.28%	54.98
22	0.00075	0.00031	0.00053	99.13%	60.49		99.73%	0.00324	6.11	89.28%	56.69		99.72%	0.00329	6.22	87.22%	57.18		99.52%	0.00529	9.98	81.82%	54.28
23	0.00078	0.00032	0.00055	99.08%	59.52		99.74%	0.00314	5.70	88.99%	55.87		99.74%	0.00316	5.74	86.94%	56.36		99.55%	0.00508	9.24	81.39%	53.56
24	0.00080	0.00033	0.00057	99.02%	58.55		99.75%	0.00304	5.38	88.71%	55.04		99.75%	0.00302	5.35	86.66%	55.54		99.57%	0.00489	8.65	80.98%	52.83
25	0.00081	0.00034	0.00058	98.97%	57.58		99.76%	0.00294	5.11	88.45%	54.21		99.77%	0.00289	5.03	86.40%	54.71		99.59%	0.00469	8.16	80.58%	52.09
26	0.00082	0.00035	0.00059	98.91%	56.62		99.77%	0.00284	4.86	88.19%	53.37		99.78%	0.00277	4.74	86.15%	53.87		99.61%	0.00451	7.71	80.20%	51.33
27	0.00083	0.00037	0.00060	98.85%	55.65		99.78%	0.00276	4.60	87.93%	52.52		99.79%	0.00266	4.44	85.91%	53.01		99.63%	0.00434	7.23	79.84%	50.56
28	0.00085	0.00038	0.00062	98.79%	54.68		99.79%	0.00268	4.36	87.69%	51.66		99.81%	0.00256	4.16	85.68%	52.15		99.64%	0.00418	6.79	79.50%	49.78
29	0.00087	0.00040	0.00064	98.73%	53.72		99.80%	0.00261	4.11	87.46%	50.80		99.82%	0.00247	3.89	85.46%	51.29		99.66%	0.00403	6.35	79.16%	48.99
30	0.00090	0.00042	0.00066	98.67%	52.75		99.81%	0.00255	3.86	87.23%	49.93		99.83%	0.00239	3.62	85.25%	50.41		99.68%	0.00390	5.90	78.85%	48.18
40	0.00126	0.00077	0.00102	97.92%	43.11		99.88%	0.00221	2.18	85.23%	40.99		99.90%	0.00198	1.95	83.46%	41.39		99.80%	0.00301	2.97	76.21%	39.69
50	0.00297	0.00197	0.00247	96.38%	33.71			0.00400	1.62	82.77%	32.04			0.00370	1.50	81.27%	32.36			0.00502	2.03	73.36%	31.02
60	0.00716	0.00460	0.00588	92.84%	24.78			0.00797	1.35	78.34%	23.55			0.00756	1.29	77.18%	23.78			0.00936	1.59	68.61%	22.79
70	0.01834	0.01192	0.01513	84.58%	16.64			0.01824	1.21	69.60%	15.80			0.01763	1.17	68.91%	15.96			0.02030	1.34	59.94%	15.29
80	0.04999	0.03429	0.04214	65.73%	9.80			0.04742	1.13	51.94%	9.29			0.04638	1.10	51.84%	9.38			0.05093	1.21	43.54%	8.97
90	0.14500	0.10953	0.12727	30.93%	4.83			0.13797	1.08	22.58%	4.55			0.13587	1.07	22.89%	4.61			0.14509	1.14	17.95%	4.39
100	0.34979	0.30602	0.32791	2.84%	2.25			0.35089	1.07	1.69%	2.10			0.34639	1.06	1.78%	2.13			0.36618	1.12	1.17%	2.01

Target and fitted criteria are as follows:

Overall

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	93.8%	93.6%	0.004
0	20	89.6%	89.9%	0.009
0	30	87.4%	87.2%	0.003
0	40	85.2%	85.2%	0.000
Total				0.0166

Mental retardation - Non-existent to moderate

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	95.5%	95.8%	0.012
0	10	93.5%	93.5%	0.000
0	15	92.4%	91.9%	0.029
0	20	90.4%	90.7%	0.013
Total				0.0541

Mental retardation - Severe to profound

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	85.3%	83.7%	0.308
0	10	72.6%	73.7%	0.171
0	15	66.6%	67.2%	0.048
0	20	63.3%	62.7%	0.063
Total				0.5902

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

Age	Regular life table (Canada Life Tables, 2014/2016)					Adjusted life table					Adjusted life table						
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy		
0	0.00477	0.00425	0.00451	100.00%	81.83	4.42%	99.27%	0.01180	2.62	100.00%	71.20	7.85%	99.13%	0.01316	2.92	100.00%	74.06
1	0.00029	0.00025	0.00027	99.55%	81.20		99.30%	0.00726	26.90	98.82%	71.04		99.20%	0.00828	30.65	98.68%	74.04
2	0.00020	0.00018	0.00019	99.52%	80.22		99.33%	0.00688	36.19	98.10%	70.56		99.26%	0.00757	39.83	97.87%	73.65
3	0.00015	0.00013	0.00014	99.50%	79.24		99.36%	0.00653	46.64	97.43%	70.05		99.32%	0.00694	49.56	97.13%	73.21
4	0.00012	0.00010	0.00011	99.49%	78.25		99.39%	0.00622	56.53	96.79%	69.50		99.37%	0.00638	57.96	96.45%	72.72
5	0.00010	0.00009	0.00010	99.48%	77.26		99.42%	0.00593	62.46	96.19%	68.93		99.42%	0.00587	61.78	95.84%	72.18
6	0.00008	0.00008	0.00008	99.47%	76.26		99.44%	0.00566	70.76	95.62%	68.34		99.47%	0.00540	67.52	95.28%	71.60
7	0.00008	0.00007	0.00008	99.46%	75.27		99.47%	0.00541	72.12	95.08%	67.73		99.51%	0.00498	66.38	94.76%	70.99
8	0.00008	0.00007	0.00008	99.45%	74.28		99.49%	0.00517	68.98	94.56%	67.10		99.55%	0.00459	61.25	94.29%	70.34
9	0.00008	0.00007	0.00008	99.45%	73.28		99.51%	0.00495	65.97	94.07%	66.44		99.58%	0.00424	56.53	93.86%	69.66
10	0.00009	0.00008	0.00009	99.44%	72.29		99.53%	0.00474	55.80	93.61%	65.77		99.62%	0.00392	46.15	93.46%	68.96
11	0.00010	0.00009	0.00010	99.43%	71.29		99.55%	0.00455	47.86	93.17%	65.08		99.65%	0.00363	38.23	93.09%	68.23
12	0.00012	0.00010	0.00011	99.42%	70.30		99.57%	0.00437	39.68	92.74%	64.38		99.67%	0.00337	30.63	92.75%	67.47
13	0.00014	0.00012	0.00013	99.41%	69.31		99.59%	0.00420	32.28	92.34%	63.66		99.70%	0.00313	24.10	92.44%	66.70
14	0.00018	0.00014	0.00016	99.40%	68.32		99.61%	0.00405	25.29	91.95%	62.92		99.72%	0.00293	18.30	92.15%	65.91
15	0.00024	0.00017	0.00021	99.38%	67.33		99.63%	0.00392	19.12	91.58%	62.18		99.74%	0.00276	13.44	91.88%	65.10
16	0.00032	0.00021	0.00027	99.36%	66.34		99.64%	0.00382	14.40	91.22%	61.42		99.76%	0.00261	9.87	91.63%	64.28
17	0.00040	0.00024	0.00032	99.33%	65.36		99.66%	0.00371	11.61	90.87%	60.65		99.78%	0.00249	7.77	91.39%	63.45
18	0.00048	0.00026	0.00037	99.30%	64.38		99.68%	0.00361	9.77	90.53%	59.88		99.80%	0.00237	6.39	91.16%	62.60
19	0.00056	0.00027	0.00042	99.27%	63.40		99.69%	0.00352	8.47	90.21%	59.09		99.82%	0.00225	5.43	90.95%	61.75
20	0.00063	0.00028	0.00046	99.22%	62.43		99.70%	0.00342	7.51	89.89%	58.30		99.83%	0.00215	4.72	90.74%	60.89
21	0.00070	0.00029	0.00050	99.18%	61.46		99.72%	0.00333	6.72	89.58%	57.50		99.84%	0.00206	4.15	90.55%	60.02
22	0.00075	0.00031	0.00053	99.13%	60.49		99.73%	0.00324	6.11	89.28%	56.69		99.86%	0.00197	3.71	90.36%	59.14
23	0.00078	0.00032	0.00055	99.08%	59.52		99.74%	0.00314	5.70	88.99%	55.87		99.87%	0.00188	3.41	90.18%	58.26
24	0.00080	0.00033	0.00057	99.02%	58.55		99.75%	0.00304	5.38	88.71%	55.04		99.88%	0.00179	3.16	90.01%	57.37
25	0.00081	0.00034	0.00058	98.97%	57.58		99.76%	0.00294	5.11	88.45%	54.21		99.89%	0.00170	2.96	89.85%	56.47
26	0.00082	0.00035	0.00059	98.91%	56.62		99.77%	0.00284	4.86	88.19%	53.37		99.90%	0.00162	2.77	89.70%	55.56
27	0.00083	0.00037	0.00060	98.85%	55.65		99.78%	0.00276	4.60	87.93%	52.52		99.90%	0.00156	2.59	89.55%	54.65
28	0.00085	0.00038	0.00062	98.79%	54.68		99.79%	0.00268	4.36	87.69%	51.66		99.91%	0.00150	2.43	89.41%	53.74
29	0.00087	0.00040	0.00064	98.73%	53.72		99.80%	0.00261	4.11	87.46%	50.80		99.92%	0.00145	2.28	89.28%	52.82
30	0.00090	0.00042	0.00066	98.67%	52.75		99.81%	0.00255	3.86	87.23%	49.93		99.93%	0.00141	2.13	89.15%	51.89
40	0.00126	0.00077	0.00102	97.92%	43.11		99.88%	0.00221	2.18	85.23%	40.99		99.97%	0.00135	1.33	88.00%	42.51
50	0.00297	0.00197	0.00247	96.38%	33.71			0.00400	1.62	82.77%	32.04			0.00289	1.17	86.30%	33.23
60	0.00716	0.00460	0.00588	92.84%	24.78			0.00797	1.35	78.34%	23.55			0.00645	1.10	82.73%	24.43
70	0.01834	0.01192	0.01513	84.58%	16.64			0.01824	1.21	69.60%	15.80			0.01599	1.06	74.85%	16.40
80	0.04999	0.03429	0.04214	65.73%	9.80			0.04742	1.13	51.94%	9.29			0.04359	1.03	57.52%	9.65
90	0.14500	0.10953	0.12727	30.93%	4.83			0.13797	1.08	22.58%	4.55			0.13021	1.02	26.49%	4.75
100	0.34979	0.30602	0.32791	2.84%	2.25			0.35089	1.07	1.69%	2.10			0.33424	1.02	2.30%	2.21

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
5.99%	96.17%	0.04266	94.6	100.00%
	96.40%	0.03628	134.39	95.73%
	96.61%	0.03405	179.21	92.26%
	96.82%	0.03197	228.36	89.12%
	97.01%	0.03003	273.04	86.27%
	97.19%	0.02823	297.11	83.68%
	97.36%	0.02653	331.56	81.32%
	97.51%	0.02494	332.47	79.16%
	97.66%	0.02345	312.60	77.19%
	97.80%	0.02204	293.92	75.38%
	97.93%	0.02074	243.97	73.71%
	98.06%	0.01951	205.36	72.19%
	98.17%	0.01836	166.91	70.78%
	98.28%	0.01729	132.97	69.48%
	98.39%	0.01629	101.80	68.28%
	98.48%	0.01536	74.95	67.17%
	98.57%	0.01452	54.78	66.13%
	98.66%	0.01372	42.86	65.17%
	98.74%	0.01296	35.03	64.28%
	98.82%	0.01225	29.52	63.45%
	98.89%	0.01158	25.45	62.67%
	98.95%	0.01095	22.13	61.94%
	99.02%	0.01036	19.55	61.26%
	99.08%	0.00979	17.80	60.63%
	99.13%	0.00925	16.38	60.04%
	99.18%	0.00874	15.20	59.48%
	99.23%	0.00826	14.12	58.96%
	99.28%	0.00782	13.03	58.47%
	99.32%	0.00740	12.03	58.02%
	99.36%	0.00701	11.04	57.59%
	99.40%	0.00666	10.08	57.18%
	99.68%	0.00425	4.18	54.18%
		0.00660	2.67	51.44%
		0.01150	1.96	47.24%
		0.02350	1.55	40.21%
		0.05635	1.34	28.01%
		0.15609	1.23	10.63%
		0.38981	1.19	0.56%

C Plioplys et al (1998)

Target and fitted criteria are as follows:

Group 1 - Tube fed, Not rolling, No hand or arm use

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	75%	75%	0.019
0	10	66%	66%	0.002
0	15	63%	62%	0.132
0	20	60%	60%	0.003
0	25	59%	59%	0.000
0	30	58%	58%	0.021
Total				0.1765

Group 2 - Tube fed, Not rolling, Hand or arm use present

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	89%	93%	1.847
0	10	84%	87%	1.428
0	15	84%	82%	0.271
0	20	84%	78%	4.368
0	25	73%	74%	0.075
0	30	68%	70%	0.538
Total				8.5264

Group 3 - Fed by others, Not rolling, No hand or arm use

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	91%	91%	0.000
0	10	89%	86%	0.789
0	15	81%	84%	0.878
0	20	81%	82%	0.114
0	25	81%	81%	0.009
0	30	81%	80%	0.174
Total				1.9635

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

Age	Regular life table (United States Life Tables, 2014)				Adjusted life table					
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	13.66%				
1	0.00039	0.00034	0.00037	99.42%	78.17	92.96%	0.07581	13.03	100.00%	47.89
2	0.00028	0.00022	0.00025	99.38%	77.20	93.92%	0.06114	165.44	92.42%	50.77
3	0.00021	0.00016	0.00018	99.36%	76.22	94.75%	0.05272	212.80	86.77%	53.05
4	0.00019	0.00013	0.00016	99.34%	75.24	95.47%	0.04550	248.21	82.19%	54.97
5	0.00016	0.00012	0.00014	99.32%	74.25	96.09%	0.03928	249.42	78.45%	56.57
6	0.00014	0.00011	0.00013	99.31%	73.26	96.62%	0.03393	239.82	75.37%	57.86
7	0.00013	0.00010	0.00011	99.30%	72.27	97.08%	0.02930	233.32	72.82%	58.88
8	0.00011	0.00009	0.00010	99.29%	71.28	97.48%	0.02530	224.58	70.68%	59.64
9	0.00010	0.00008	0.00009	99.28%	70.28	97.82%	0.02185	215.83	68.89%	60.17
10	0.00009	0.00008	0.00009	99.27%	69.29	98.12%	0.01887	204.90	67.39%	60.51
11	0.00010	0.00009	0.00010	99.26%	68.30	98.38%	0.01630	184.26	66.12%	60.66
12	0.00014	0.00010	0.00012	99.25%	67.30	98.60%	0.01410	147.26	65.04%	60.66
13	0.00021	0.00013	0.00017	99.24%	66.31	98.79%	0.01221	101.69	64.12%	60.52
14	0.00030	0.00016	0.00023	99.22%	65.32	98.96%	0.01060	64.20	63.34%	60.26
15	0.00039	0.00019	0.00029	99.20%	64.34	99.10%	0.00924	40.70	62.67%	59.90
16	0.00050	0.00023	0.00036	99.17%	63.35	99.22%	0.00807	27.52	62.09%	59.45
17	0.00062	0.00027	0.00044	99.13%	62.38	99.33%	0.00708	19.53	61.59%	58.93
18	0.00075	0.00031	0.00053	99.09%	61.40	99.42%	0.00624	14.14	61.15%	58.35
19	0.00089	0.00034	0.00062	99.04%	60.44	99.50%	0.00554	10.48	60.77%	57.71
20	0.00103	0.00038	0.00070	98.97%	59.47	99.57%	0.00494	8.02	60.43%	57.03
21	0.00116	0.00041	0.00079	98.90%	58.51	99.63%	0.00444	6.30	60.14%	56.31
22	0.00125	0.00044	0.00085	98.83%	57.56	99.68%	0.00401	5.10	59.87%	55.56
23	0.00131	0.00047	0.00089	98.74%	56.61	99.72%	0.00363	4.28	59.63%	54.78
24	0.00133	0.00050	0.00091	98.66%	55.66	99.76%	0.00329	3.71	59.41%	53.98
25	0.00135	0.00052	0.00093	98.57%	54.71	99.79%	0.00299	3.27	59.22%	53.16
26	0.00137	0.00055	0.00096	98.47%	53.76	99.82%	0.00273	2.92	59.04%	52.32
27	0.00139	0.00058	0.00099	98.38%	52.81	99.85%	0.00251	2.61	58.88%	51.46
28	0.00142	0.00061	0.00102	98.28%	51.86	99.87%	0.00232	2.35	58.73%	50.59
29	0.00146	0.00064	0.00105	98.18%	50.92	99.88%	0.00217	2.13	58.59%	49.70
30	0.00150	0.00068	0.00109	98.08%	49.97	99.90%	0.00205	1.94	58.47%	48.81
40	0.00214	0.00135	0.00174	96.79%	40.56	99.91%	0.00195	1.79	58.35%	47.91
50	0.00503	0.00321	0.00412	94.34%	31.47		0.00280	1.61	57.04%	38.89
60	0.01137	0.00672	0.00904	88.70%	23.11		0.00549	1.33	54.94%	30.16
70	0.02270	0.01514	0.01892	78.15%	15.49		0.01090	1.21	50.85%	22.15
80	0.05750	0.04213	0.04981	57.65%	9.03		0.02169	1.15	43.80%	14.84
90	0.16233	0.12810	0.14521	23.77%	4.48		0.05457	1.10	31.15%	8.64
100	1.00000	1.00000	1.00000	1.80%	2.15		0.15479	1.07	11.95%	4.27

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.18%				
0.01901	3.27	100.00%	48.80	
0.01347	36.46	98.10%	48.74	
0.01320	53.26	96.78%	48.40	
0.01298	70.81	95.50%	48.04	
0.01280	81.28	94.26%	47.66	
0.01264	89.33	93.05%	47.28	
0.01247	99.34	91.88%	46.88	
0.01231	109.30	90.73%	46.46	
0.01216	120.10	89.62%	46.03	
0.01201	130.37	88.53%	45.59	
0.01186	134.06	87.46%	45.14	
0.01173	122.54	86.43%	44.68	
0.01162	96.75	85.41%	44.20	
0.01152	69.79	84.42%	43.72	
0.01145	50.45	83.45%	43.22	
0.01138	38.80	82.49%	42.72	
0.01132	31.23	81.55%	42.20	
0.01127	25.52	80.63%	41.68	
0.01123	21.25	79.72%	41.15	
0.01119	18.16	78.82%	40.61	
0.01115	15.82	77.94%	40.06	
0.01111	14.14	77.07%	39.51	
0.01105	13.04	76.22%	38.95	
0.01096	12.35	75.38%	38.38	
0.01087	11.90	74.55%	37.80	
0.01077	11.53	73.74%	37.21	
0.01068	11.13	72.94%	36.61	
0.01059	10.73	72.17%	36.00	
0.01051	10.32	71.40%	35.38	
0.01043	9.91	70.65%	34.75	
0.01036	9.50	69.91%	34.11	
0.01316	7.55	62.28%	27.66	
0.01884	4.57	53.36%	21.42	
0.02909	3.22	42.27%	15.69	
0.04881	2.58	29.14%	10.45	
0.10108	2.03	14.40%	6.00	
0.24851	1.71	2.63%	2.85	
1.21543	1.22	0.02%	1.77	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
9.84%				
0.02679	4.60	100.00%	63.71	
0.01939	52.46	97.32%	64.45	
0.01740	70.21	95.43%	64.72	
0.01565	85.35	93.77%	64.85	
0.01410	89.52	92.31%	64.88	
0.01271	89.86	91.01%	64.80	
0.01146	91.26	89.85%	64.62	
0.01033	91.71	88.82%	64.37	
0.00932	92.02	87.90%	64.03	
0.00840	91.21	87.08%	63.63	
0.00758	85.66	86.35%	63.17	
0.00685	71.56	85.70%	62.64	
0.00621	51.72	85.11%	62.07	
0.00566	34.25	84.58%	61.46	
0.00518	22.81	84.10%	60.80	
0.00476	16.21	83.67%	60.12	
0.00439	12.10	83.27%	59.40	
0.00407	9.22	82.90%	58.66	
0.00380	7.19	82.57%	57.90	
0.00356	5.79	82.25%	57.12	
0.00336	4.77	81.96%	56.32	
0.00318	4.05	81.68%	55.51	
0.00301	3.55	81.42%	54.69	
0.00284	3.19	81.18%	53.85	
0.00267	2.92	80.95%	53.00	
0.00252	2.69	80.73%	52.14	
0.00239	2.49	80.53%	51.27	
0.00227	2.30	80.34%	50.39	
0.00218	2.14	80.15%	49.51	
0.00210	1.99	79.98%	48.61	
0.00203	1.87	79.81%	47.72	
0.00291	1.67	77.95%	38.73	
0.00562	1.36	74.99%	30.04	
0.01108	1.23	69.30%	22.06	
0.02196	1.16	59.57%	14.77	
0.05503	1.10	42.22%	8.60	
0.15573	1.07	16.07%	4.25	
1.02193	1.02	1.00%	2.10	

Target and fitted criteria are as follows:

All individuals with cerebral palsy

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	94%	95%	0.059
0	10	91%	91%	0.013
0	15	89%	89%	0.000
0	20	88%	87%	0.085
0	25	86%	86%	0.007
0	30	85%	85%	0.011
0	35	83%	84%	0.079
Total				0.2544

Disability score 1 to 3

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	7%	6%	1.544
5	40	22%	23%	0.707
Total				2.2513

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 (Australia, 2014-16)					Adjusted life table				
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00357	0.00330	0.00344	100.00%	82.38	98.88%	0.01463	4.26	100.00%	69.48
1	0.00029	0.00022	0.00026	99.66%	81.66	98.95%	0.01079	42.32	98.54%	69.50
2	0.00016	0.00013	0.00015	99.63%	80.69	99.01%	0.01003	69.17	97.47%	69.25
3	0.00014	0.00011	0.00013	99.62%	79.70	99.07%	0.00940	75.17	96.50%	68.95
4	0.00012	0.00010	0.00011	99.60%	78.71	99.13%	0.00881	80.05	95.59%	68.60
5	0.00011	0.00009	0.00010	99.59%	77.72	99.18%	0.00826	82.56	94.75%	68.20
6	0.00010	0.00008	0.00009	99.58%	76.72	99.23%	0.00774	86.00	93.96%	67.77
7	0.00009	0.00007	0.00008	99.57%	75.73	99.28%	0.00726	90.69	93.24%	67.29
8	0.00008	0.00007	0.00008	99.57%	74.74	99.33%	0.00681	90.73	92.56%	66.78
9	0.00008	0.00007	0.00008	99.56%	73.74	99.37%	0.00639	85.16	91.93%	66.24
10	0.00008	0.00007	0.00008	99.55%	72.75	99.41%	0.00600	79.94	91.34%	65.66
11	0.00009	0.00008	0.00009	99.54%	71.75	99.44%	0.00564	66.33	90.80%	65.05
12	0.00010	0.00009	0.00010	99.54%	70.76	99.48%	0.00530	55.83	90.28%	64.42
13	0.00012	0.00010	0.00011	99.53%	69.77	99.51%	0.00500	45.41	89.81%	63.76
14	0.00016	0.00013	0.00015	99.52%	68.77	99.54%	0.00473	32.60	89.36%	63.08
15	0.00022	0.00015	0.00019	99.50%	67.78	99.57%	0.00448	24.23	88.93%	62.37
16	0.00030	0.00018	0.00024	99.48%	66.80	99.60%	0.00427	17.79	88.54%	61.65
17	0.00038	0.00020	0.00029	99.46%	65.81	99.62%	0.00407	14.03	88.16%	60.91
18	0.00045	0.00021	0.00033	99.43%	64.83	99.65%	0.00388	11.74	87.80%	60.16
19	0.00052	0.00022	0.00037	99.40%	63.85	99.67%	0.00370	9.99	87.46%	59.39
20	0.00056	0.00023	0.00040	99.36%	62.87	99.69%	0.00351	8.90	87.14%	58.61
21	0.00059	0.00023	0.00041	99.32%	61.90	99.71%	0.00334	8.13	86.83%	57.82
22	0.00061	0.00024	0.00043	99.28%	60.92	99.73%	0.00317	7.46	86.54%	57.01
23	0.00063	0.00025	0.00044	99.24%	59.95	99.74%	0.00301	6.85	86.27%	56.19
24	0.00064	0.00026	0.00045	99.19%	58.98	99.76%	0.00286	6.36	86.01%	55.36
25	0.00065	0.00027	0.00046	99.15%	58.00	99.77%	0.00272	5.92	85.76%	54.51
26	0.00066	0.00028	0.00047	99.10%	57.03	99.79%	0.00259	5.52	85.53%	53.66
27	0.00068	0.00029	0.00049	99.06%	56.06	99.80%	0.00248	5.11	85.30%	52.80
28	0.00070	0.00031	0.00051	99.01%	55.08	99.81%	0.00237	4.70	85.09%	51.93
29	0.00073	0.00033	0.00053	98.96%	54.11	99.82%	0.00228	4.31	84.89%	51.05
30	0.00077	0.00036	0.00057	98.91%	53.14	99.84%	0.00221	3.91	84.70%	50.17
40	0.00142	0.00078	0.00110	98.14%	43.51		0.00242	2.20	82.92%	41.14
50	0.00298	0.00180	0.00239	96.59%	34.12		0.00408	1.71	80.41%	32.25
60	0.00675	0.00398	0.00537	93.23%	25.15		0.00766	1.43	76.12%	23.76
70	0.01613	0.00994	0.01304	85.99%	16.79		0.01647	1.26	68.29%	15.85
80	0.04793	0.03188	0.03991	68.61%	9.59		0.04591	1.15	52.09%	9.03
90	0.15455	0.12362	0.13909	31.16%	4.58		0.15166	1.09	21.56%	4.29
100	0.34389	0.31851	0.33120	2.52%	2.20		0.35738	1.08	1.37%	2.04

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.96%	0.00386	1.12	100.00%	80.54
99.96%	0.00068	2.68	99.61%	79.85
99.96%	0.00057	3.95	98.55%	78.90
99.96%	0.00055	4.42	99.49%	77.94
99.96%	0.00054	4.89	99.43%	76.99
99.96%	0.00053	5.28	99.38%	76.03
99.96%	0.00052	5.75	99.33%	75.07
99.96%	0.00051	6.35	99.28%	74.11
99.96%	0.00050	6.71	99.23%	73.14
99.96%	0.00050	6.71	99.18%	72.18
99.96%	0.00050	6.71	99.13%	71.22
99.96%	0.00051	6.03	99.08%	70.25
99.96%	0.00052	5.50	99.03%	69.29
99.96%	0.00054	4.89	98.97%	68.32
99.96%	0.00057	3.95	98.92%	67.36
99.96%	0.00061	3.31	98.86%	66.40
99.96%	0.00067	2.78	98.80%	65.44
99.96%	0.00072	2.48	98.74%	64.48
99.96%	0.00076	2.30	98.67%	63.53
99.96%	0.00080	2.16	98.59%	62.58
99.96%	0.00082	2.08	98.51%	61.63
99.96%	0.00084	2.04	98.43%	60.68
99.96%	0.00085	2.01	98.35%	59.73
99.96%	0.00087	1.97	98.27%	58.78
99.96%	0.00088	1.95	98.18%	57.83
99.96%	0.00089	1.93	98.09%	56.88
99.96%	0.00090	1.91	98.01%	55.93
99.96%	0.00091	1.88	97.92%	54.98
99.96%	0.00093	1.85	97.83%	54.03
99.96%	0.00096	1.81	97.74%	53.08
99.96%	0.00099	1.76	97.64%	52.13
99.96%	0.00153	1.39	96.47%	42.70
0.00294	1.23	94.45%	33.49	
0.00610	1.14	90.60%	24.68	
0.01414	1.09	82.82%	16.47	
0.04185	1.05	65.13%	9.40	
0.14315	1.03	28.71%	4.48	
0.33965	1.03	2.15%	2.15	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
5.16%				
99.74%	0.00604	1.76	100.00%	78.77
99.75%	0.00273	10.70	99.40%	78.25
99.77%	0.00249	17.19	99.13%	77.46
99.78%	0.00235	18.81	98.88%	76.65
99.79%	0.00222	20.19	98.65%	75.83
99.80%	0.00210	21.02	98.43%	75.00
99.81%	0.00199	22.10	98.22%	74.15
99.82%	0.00188	23.51	98.02%	73.30
99.83%	0.00178	23.77	97.84%	72.44
99.84%	0.00169	22.60	97.67%	71.57
99.85%	0.00161	21.48	97.50%	70.69
99.85%	0.00154	18.14	97.34%	69.80
99.86%	0.00148	15.55	97.19%	68.91
99.87%	0.00142	12.91	97.05%	68.01
99.88%	0.00139	9.57	96.91%	67.11
99.88%	0.00136	7.37	96.78%	66.20
99.89%	0.00136	5.66	96.64%	65.29
99.89%	0.00135	4.66	96.51%	64.38
99.90%	0.00134	4.05	96.38%	63.46
99.90%	0.00132	3.58	96.25%	62.55
99.91%	0.00130	3.29	96.13%	61.63
99.91%	0.00127	3.09	96.00%	60.71
99.92%	0.00124	2.91	95.88%	59.78
99.92%	0.00121	2.75	95.76%	58.86
99.93%	0.00118	2.63	95.65%	57.93
99.93%	0.00115	2.51	95.53%	57.00
99.93%	0.00113	2.40	95.42%	56.06
99.94%	0.00111	2.29	95.32%	55.12
99.94%	0.00110	2.17	95.21%	54.19
99.94%	0.00109	2.06	95.10%	53.24
99.95%	0.00110	1.94	95.00%	52.30
99.97%	0.00141	1.28	93.87%	42.87
0.00279	1.17	91.93%	33.66	
0.00591	1.10	88.32%	24.80	
0.01385	1.06	80.93%	16.56	
0.04133	1.04	63.90%	9.45	
0.14206	1.02	28.39%	4.51	
0.33739	1.02	2.17%	2.16	

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%	0.000
Total				0.0000

Disability score 10 to 12

Relative hazard ratios				
From	To	Target	Fitted	Deviation
1	5	452%	452%	0.000
5	40	523%	523%	0.000
Total				0.0000

Severe CP

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	5	85%	86%	0.180
0	10	78%	78%	0.006
0	15	73%	72%	0.080
0	20	69%	68%	0.045
0	25	65%	66%	0.093
Total				0.4041

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (Australia, 2014-16)					Adjusted life table				
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00357	0.00330	0.00344	100.00%	82.38	97.28%	0.03056	8.90	100.00%	55.38
1	0.00029	0.00022	0.00026	99.66%	81.66	97.44%	0.02582	101.27	96.94%	56.11
2	0.00016	0.00013	0.00015	99.63%	80.69	97.60%	0.02417	166.70	94.44%	56.59
3	0.00014	0.00011	0.00013	99.62%	79.70	97.74%	0.02270	181.60	92.16%	56.97
4	0.00012	0.00010	0.00011	99.60%	78.71	97.88%	0.02132	193.82	90.07%	57.29
5	0.00011	0.00009	0.00010	99.59%	77.72	98.01%	0.02003	200.28	88.15%	57.52
6	0.00010	0.00008	0.00009	99.58%	76.72	98.13%	0.01881	209.04	86.38%	57.69
7	0.00009	0.00007	0.00008	99.57%	75.73	98.24%	0.01767	220.90	84.75%	57.79
8	0.00008	0.00007	0.00008	99.57%	74.74	98.35%	0.01660	221.39	83.26%	57.82
9	0.00008	0.00007	0.00008	99.56%	73.74	98.45%	0.01560	208.06	81.87%	57.78
10	0.00008	0.00007	0.00008	99.55%	72.75	98.54%	0.01467	195.55	80.60%	57.69
11	0.00009	0.00008	0.00009	99.54%	71.75	98.63%	0.01379	162.28	79.41%	57.54
12	0.00010	0.00009	0.00010	99.54%	70.76	98.71%	0.01298	136.58	78.32%	57.34
13	0.00012	0.00010	0.00011	99.53%	69.77	98.79%	0.01221	111.01	77.30%	57.09
14	0.00016	0.00013	0.00015	99.52%	68.77	98.86%	0.01151	79.41	76.36%	56.79
15	0.00022	0.00015	0.00019	99.50%	67.78	98.93%	0.01087	58.74	75.48%	56.44
16	0.00030	0.00018	0.00024	99.48%	66.80	99.00%	0.01028	42.81	74.66%	56.06
17	0.00038	0.00020	0.00029	99.46%	65.81	99.06%	0.00972	33.51	73.89%	55.63
18	0.00045	0.00021	0.00033	99.43%	64.83	99.11%	0.00919	27.84	73.17%	55.18
19	0.00052	0.00022	0.00037	99.40%	63.85	99.17%	0.00869	23.49	72.50%	54.68
20	0.00056	0.00023	0.00040	99.36%	62.87	99.22%	0.00821	20.80	71.87%	54.16
21	0.00059	0.00023	0.00041	99.32%	61.90	99.27%	0.00776	18.92	71.28%	53.60
22	0.00061	0.00024	0.00043	99.28%	60.92	99.31%	0.00733	17.24	70.73%	53.02
23	0.00063	0.00025	0.00044	99.24%	59.95	99.35%	0.00692	15.74	70.21%	52.41
24	0.00064	0.00026	0.00045	99.19%	58.98	99.39%	0.00654	14.54	69.72%	51.77
25	0.00065	0.00027	0.00046	99.15%	58.00	99.43%	0.00618	13.44	69.27%	51.10
26	0.00066	0.00028	0.00047	99.10%	57.03	99.46%	0.00585	12.44	68.84%	50.42
27	0.00068	0.00029	0.00049	99.06%	56.06	99.49%	0.00554	11.42	68.44%	49.71
28	0.00070	0.00031	0.00051	99.01%	55.08	99.52%	0.00525	10.40	68.06%	48.99
29	0.00073	0.00033	0.00053	98.96%	54.11	99.55%	0.00499	9.42	67.70%	48.24
30	0.00077	0.00036	0.00057	98.91%	53.14	99.58%	0.00476	8.42	67.36%	47.48
40	0.00142	0.00078	0.00110	98.14%	43.51	99.78%	0.00335	3.04	64.72%	39.23
50	0.00298	0.00180	0.00239	96.59%	34.12		0.00525	2.20	61.39%	31.07
60	0.00675	0.00398	0.00537	93.23%	25.15		0.00925	1.72	57.33%	22.88
70	0.01613	0.00994	0.01304	85.99%	16.79		0.01885	1.45	50.46%	15.26
80	0.04793	0.03188	0.03991	68.61%	9.59		0.05009	1.26	37.29%	8.68
90	0.15455	0.12362	0.13909	31.16%	4.58		0.16041	1.15	14.46%	4.10
100	0.34389	0.31851	0.33120	2.52%	2.20		0.37561	1.13	0.78%	1.94

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
2.49%				
95.06%	0.05268	15.34	100.00%	26.50
95.18%	0.04843	189.93	94.73%	26.94
95.30%	0.04713	325.03	90.14%	27.29
95.42%	0.04594	367.53	85.90%	27.62
95.53%	0.04479	407.16	81.95%	27.92
95.64%	0.04367	436.67	78.28%	28.21
95.75%	0.04257	473.04	74.86%	28.47
95.86%	0.04151	518.84	71.67%	28.72
95.96%	0.04047	539.63	68.70%	28.94
96.06%	0.03947	526.24	65.92%	29.14
96.16%	0.03849	513.17	63.32%	29.31
96.25%	0.03754	441.67	60.88%	29.47
96.35%	0.03662	385.48	58.59%	29.60
96.44%	0.03573	324.79	56.45%	29.70
96.53%	0.03487	240.51	54.43%	29.79
96.61%	0.03405	184.05	52.53%	29.84
96.70%	0.03326	138.58	50.74%	29.88
96.78%	0.03249	112.03	49.06%	29.89
96.86%	0.03173	96.14	47.46%	29.88
96.94%	0.03098	83.74	45.96%	29.84
97.01%	0.03025	76.57	44.53%	29.78
97.09%	0.02952	72.00	43.19%	29.69
97.16%	0.02881	67.79	41.91%	29.58
97.23%	0.02812	63.90	40.70%	29.44
97.30%	0.02744	60.98	39.56%	29.28
97.37%	0.02678	58.21	38.47%	29.09
97.43%	0.02613	55.60	37.44%	28.87
97.50%	0.02551	52.60	36.47%	28.64
97.56%	0.02491	49.32	35.54%	28.37
97.62%	0.02432	45.89	34.65%	28.08
97.68%	0.02377	42.06	33.81%	27.77
98.20%	0.01913	17.39	27.19%	23.40
0.02538	10.62	20.81%	19.02	
0.03656	6.81	15.37%	13.96	
0.05975	4.58	9.66%	9.24	
0.12171	3.05	4.09%	5.15	
0.31031	2.23	0.48%	2.29	
0.68771	2.08	0.00%	1.06	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
6.44%				
96.77%	0.03561	10.37	100.00%	47.49
96.98%	0.03045	119.43	96.44%	48.22
97.17%	0.02840	195.87	93.50%	48.72
97.36%	0.02656	212.49	90.85%	49.13
97.53%	0.02484	225.85	88.43%	49.46
97.69%	0.02324	232.39	86.24%	49.70
97.83%	0.02174	241.54	84.23%	49.88
97.97%	0.02033	254.17	82.40%	49.97
98.11%	0.01902	253.65	80.73%	50.00
98.23%	0.01780	237.37	79.19%	49.96
98.34%	0.01666	222.13	77.78%	49.86
98.45%	0.01560	183.54	76.48%	49.69
98.55%	0.01461	153.80	75.29%	49.47
98.64%	0.01369	124.46	74.19%	49.20
98.73%	0.01285	88.62	73.18%	48.87
98.81%	0.01207	65.25	72.23%	48.50
98.89%	0.01136	47.33	71.36%	48.09
98.96%	0.01069	36.87	70.55%	47.64
99.03%	0.01006	30.49	69.80%	47.15
99.09%	0.00947	25.61	69.10%	46.62
99.15%	0.00891	22.56	68.44%	46.06
99.20%	0.00838	20.43	67.83%	45.47
99.25%	0.00788	18.54	67.26%	44.85
99.30%	0.00741	16.85	66.73%	44.20
99.35%	0.00697	15.50	66.24%	43.53
99.39%	0.00656	14.27	65.78%	42.83
0.00668	14.21	65.34%	42.11	
0.00680	14.02	64.91%	41.39	
0.00693	13.73	64.47%	40.67	
0.00707	13.35	64.02%	39.95	
0.00723	12.79	63.57%	39.23	
0.00924	8.40	58.63%	32.11	
0.01277	5.34	52.67%	25.15	
0.01944	3.62	45.09%	18.50	
0.03412	2.62	35.05%	12.30	
0.07683	1.93	21.12%	6.94	
0.21638	1.56	5.34%	3.20	
0.49213	1.49	0.09%	1.48	

Target and fitted criteria are as follows:

No severe disabilities, low bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	99.6%	100%	0.000
2	20	99%	99%	0.001
2	30	98%	98%	0.000
Total				0.0011

Only severe ambulatory disabilities, low bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	98%	98%	0.000
2	20	96%	96%	0.000
2	30	94%	94%	0.000
Total				0.0004

Only severe ambulatory disabilities, normal bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	97%	97%	0.001
2	20	94%	94%	0.001
2	30	91%	91%	0.000
Total				0.0015

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

Age	Regular life table (United Kingdom, 2014-16)				Adjusted life table					
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00423	0.00352	0.00387	100.00%	80.91	0.00%	0.00433	1.12	100.00%	78.82
1	0.00031	0.00025	0.00028	99.61%	80.22	99.95%	0.00074	2.69	99.57%	78.16
2	0.00016	0.00014	0.00015	99.59%	79.25	99.95%	0.00062	4.10	99.49%	77.21
3	0.00013	0.00011	0.00012	99.57%	78.26	99.95%	0.00058	5.01	99.43%	76.26
4	0.00009	0.00008	0.00009	99.56%	77.27	99.95%	0.00055	6.44	99.37%	75.30
5	0.00009	0.00007	0.00008	99.55%	76.27	99.95%	0.00054	6.85	99.32%	74.35
6	0.00009	0.00007	0.00008	99.54%	75.28	99.95%	0.00055	6.64	99.27%	73.39
7	0.00009	0.00007	0.00008	99.53%	74.29	99.95%	0.00054	6.85	99.21%	72.43
8	0.00007	0.00006	0.00006	99.53%	73.29	99.95%	0.00053	8.38	99.16%	71.47
9	0.00009	0.00007	0.00008	99.52%	72.30	99.95%	0.00054	7.04	99.10%	70.50
10	0.00009	0.00006	0.00008	99.51%	71.30	99.95%	0.00054	7.08	99.05%	69.54
11	0.00010	0.00006	0.00008	99.50%	70.31	99.95%	0.00055	6.78	99.00%	68.58
12	0.00010	0.00006	0.00008	99.50%	69.31	99.95%	0.00054	7.00	98.94%	67.62
13	0.00010	0.00011	0.00010	99.49%	68.32	99.95%	0.00057	5.49	98.89%	66.65
14	0.00013	0.00011	0.00012	99.48%	67.33	99.95%	0.00058	4.93	98.83%	65.69
15	0.00016	0.00014	0.00015	99.47%	66.33	99.95%	0.00061	4.14	98.78%	64.73
16	0.00021	0.00016	0.00019	99.45%	65.34	99.95%	0.00065	3.49	98.71%	63.77
17	0.00030	0.00015	0.00023	99.43%	64.36	99.95%	0.00069	3.07	98.65%	62.81
18	0.00041	0.00021	0.00031	99.41%	63.37	99.95%	0.00078	2.49	98.58%	61.85
19	0.00045	0.00021	0.00033	99.38%	62.39	99.95%	0.00080	2.41	98.51%	60.90
20	0.00047	0.00021	0.00034	99.35%	61.41	99.95%	0.00080	2.37	98.43%	59.95
21	0.00051	0.00022	0.00036	99.31%	60.43	99.95%	0.00083	2.28	98.35%	58.99
22	0.00050	0.00022	0.00036	99.28%	59.45	99.95%	0.00082	2.30	98.27%	58.04
23	0.00056	0.00023	0.00039	99.24%	58.47	99.95%	0.00086	2.18	98.19%	57.09
24	0.00055	0.00023	0.00039	99.20%	57.50	99.95%	0.00085	2.19	98.10%	56.14
25	0.00059	0.00025	0.00042	99.16%	56.52	99.95%	0.00088	2.11	98.02%	55.19
26	0.00063	0.00027	0.00045	99.12%	55.54	99.95%	0.00092	2.03	97.93%	54.24
27	0.00063	0.00027	0.00045	99.08%	54.57	99.95%	0.00092	2.03	97.84%	53.28
28	0.00067	0.00033	0.00050	99.03%	53.59	99.95%	0.00096	1.94	97.75%	52.33
29	0.00070	0.00035	0.00052	98.98%	52.62	99.95%	0.00099	1.89	97.66%	51.38
30	0.00074	0.00039	0.00056	98.93%	51.65	99.95%	0.00103	1.83	97.56%	50.43
40	0.00156	0.00094	0.00125	98.14%	42.02		0.00182	1.46	96.29%	41.03
50	0.00335	0.00214	0.00274	96.40%	32.67		0.00348	1.27	93.98%	31.90
60	0.00797	0.00526	0.00662	92.54%	23.80		0.00762	1.15	89.45%	23.23
70	0.01935	0.01301	0.01618	83.67%	15.73		0.01770	1.09	79.89%	15.35
80	0.05555	0.03999	0.04777	63.44%	8.94		0.05045	1.06	59.36%	8.72
90	0.16790	0.13835	0.15313	25.70%	4.32		0.15868	1.04	23.06%	4.20
100	0.37248	0.33058	0.35153	1.71%	2.15		0.36270	1.03	1.38%	2.08

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
2.05%				
99.73%	0.00653	1.69	100.00%	73.64
99.74%	0.00289	10.47	99.35%	73.12
99.74%	0.00271	18.06	99.06%	72.33
99.75%	0.00262	22.62	98.79%	71.52
99.75%	0.00254	29.73	98.53%	70.71
99.76%	0.00249	31.26	98.28%	69.89
99.76%	0.00244	29.56	98.04%	69.06
99.77%	0.00239	30.03	97.80%	68.23
99.77%	0.00232	36.89	97.57%	67.39
99.78%	0.00229	29.76	97.34%	66.55
99.78%	0.00225	29.36	97.12%	65.70
99.79%	0.00221	27.40	96.90%	64.84
99.79%	0.00216	27.86	96.68%	63.99
99.80%	0.00214	20.70	96.47%	63.12
99.80%	0.00212	17.85	96.27%	62.26
99.80%	0.00210	14.22	96.06%	61.39
99.81%	0.00210	11.24	95.86%	60.52
99.81%	0.00210	9.34	95.66%	59.64
99.82%	0.00215	6.90	95.46%	58.77
99.82%	0.00213	6.44	95.25%	57.89
99.82%	0.00210	6.21	95.05%	57.02
99.83%	0.00209	5.74	94.85%	56.14
99.83%	0.00205	5.71	94.65%	55.25
99.83%	0.00205	5.21	94.46%	54.36
99.84%	0.00201	5.17	94.27%	53.48
99.84%	0.00201	4.81	94.08%	52.58
99.84%	0.00201	4.46	93.89%	51.69
99.85%	0.00198	4.39	93.70%	50.79
99.85%	0.00199	4.01	93.51%	49.89
99.85%	0.00199	3.79	93.33%	48.99
99.86%	0.00200	3.54	93.14%	48.08
	0.00301	2.41	90.96%	39.11
	0.00501	1.83	87.60%	30.41
	0.00973	1.47	81.91%	22.14
	0.02088	1.29	71.31%	14.61
	0.05605	1.17	50.79%	8.28
	0.17025	1.11	18.08%	3.97
	0.38596	1.10	0.86%	1.96

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.52%				
99.61%	0.00777	2.01	100.00%	69.52
99.61%	0.00414	14.98	99.22%	69.06
99.62%	0.00395	26.34	98.81%	68.35
99.63%	0.00386	33.28	98.42%	67.62
99.63%	0.00377	44.13	98.04%	66.88
99.64%	0.00371	46.68	97.67%	66.13
99.64%	0.00366	44.35	97.31%	65.37
99.65%	0.00360	45.31	96.95%	64.61
99.65%	0.00353	56.06	96.60%	63.84
99.66%	0.00349	45.37	96.26%	63.07
99.66%	0.00344	44.98	95.93%	62.29
99.67%	0.00339	42.16	95.60%	61.50
99.67%	0.00334	43.11	95.27%	60.71
99.68%	0.00332	32.05	94.95%	59.91
99.68%	0.00328	27.71	94.64%	59.11
99.69%	0.00326	22.06	94.33%	58.30
99.69%	0.00326	17.41	94.02%	57.49
99.70%	0.00325	14.43	93.71%	56.68
99.70%	0.00329	10.56	93.41%	55.86
99.71%	0.00326	9.86	93.10%	55.04
99.71%	0.00323	9.53	92.80%	54.22
99.72%	0.00321	8.81	92.50%	53.39
99.72%	0.00316	8.80	92.20%	52.56
99.72%	0.00315	8.00	91.91%	51.73
99.73%	0.00311	7.97	91.62%	50.89
99.73%	0.00309	7.41	91.34%	50.05
99.74%	0.00308	6.85	91.05%	49.20
99.74%	0.00304	6.76	90.77%	48.35
99.74%	0.00305	6.14	90.50%	47.50
99.75%	0.00304	5.80	90.22%	46.64
99.75%	0.00304	5.40	89.95%	45.78
	0.00430	3.43	86.84%	37.24
	0.00666	2.43	82.43%	28.94
	0.01199	1.81	75.62%	21.06
	0.02431	1.50	64.04%	13.89
	0.06208	1.30	43.57%	7.86
	0.18272	1.19	14.10%	3.74
	0.41104	1.17	0.53%	1.84

Target and fitted criteria are as follows:

Severe motor disabilities, low bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	94%	94%	0.017
2	20	86%	86%	0.002
2	30	79%	79%	0.000
Total				0.0184

Severe motor disabilities, normal bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	91%	91%	0.000
2	20	81%	81%	0.000
2	30	72%	72%	0.000
Total				0.0001

Severe motor and cognitive disabilities, low bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	85%	85%	0.004
2	20	70%	70%	0.004
2	30	59%	59%	0.001
Total				0.0092

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United Kingdom, 2014-16)				Adjusted life table					
	Males	Females	Average	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00423	0.00352	0.00387	100.00%	80.91	99.19%	0.01197	3.09	100.00%	54.60
1	0.00031	0.00025	0.00028	99.61%	80.22	99.19%	0.00841	30.47	98.80%	54.25
2	0.00016	0.00014	0.00015	99.59%	79.25	99.19%	0.00828	55.23	97.97%	53.71
3	0.00013	0.00011	0.00012	99.57%	78.26	99.19%	0.00825	71.12	97.16%	53.15
4	0.00009	0.00008	0.00009	99.56%	77.27	99.19%	0.00822	96.14	96.36%	52.59
5	0.00009	0.00007	0.00008	99.55%	76.27	99.19%	0.00821	103.32	95.57%	52.02
6	0.00009	0.00007	0.00008	99.54%	75.28	99.19%	0.00822	99.60	94.78%	51.45
7	0.00009	0.00007	0.00008	99.53%	74.29	99.19%	0.00821	103.32	94.00%	50.87
8	0.00007	0.00006	0.00006	99.53%	73.29	99.19%	0.00820	130.12	93.23%	50.29
9	0.00009	0.00007	0.00008	99.52%	72.30	99.19%	0.00821	106.64	92.47%	49.70
10	0.00009	0.00006	0.00008	99.51%	71.30	99.19%	0.00821	107.33	91.71%	49.11
11	0.00010	0.00006	0.00008	99.50%	70.31	99.19%	0.00821	102.05	90.95%	48.51
12	0.00010	0.00006	0.00008	99.50%	69.31	99.19%	0.00821	105.96	90.21%	47.91
13	0.00010	0.00011	0.00010	99.49%	68.32	99.19%	0.00824	79.59	89.47%	47.30
14	0.00013	0.00011	0.00012	99.48%	67.33	99.19%	0.00825	69.64	88.73%	46.69
15	0.00016	0.00014	0.00015	99.47%	66.33	99.19%	0.00828	55.96	88.00%	46.07
16	0.00021	0.00016	0.00019	99.45%	65.34	99.19%	0.00832	44.49	87.27%	45.45
17	0.00030	0.00015	0.00023	99.43%	64.36	99.19%	0.00836	37.15	86.54%	44.83
18	0.00041	0.00021	0.00031	99.41%	63.37	99.19%	0.00844	27.11	85.82%	44.20
19	0.00045	0.00021	0.00033	99.38%	62.39	99.19%	0.00846	25.57	85.09%	43.57
20	0.00047	0.00021	0.00034	99.35%	61.41	99.19%	0.00847	25.02	84.37%	42.94
21	0.00051	0.00022	0.00036	99.31%	60.43	99.19%	0.00850	23.34	83.66%	42.31
22	0.00050	0.00022	0.00036	99.28%	59.45	99.19%	0.00849	23.65	82.95%	41.66
23	0.00056	0.00023	0.00039	99.24%	58.47	99.19%	0.00853	21.64	82.24%	41.02
24	0.00055	0.00023	0.00039	99.20%	57.50	99.19%	0.00852	21.88	81.54%	40.36
25	0.00059	0.00025	0.00042	99.16%	56.52	99.19%	0.00855	20.48	80.85%	39.71
26	0.00063	0.00027	0.00045	99.12%	55.54	99.19%	0.00858	19.07	80.16%	39.04
27	0.00063	0.00027	0.00045	99.08%	54.57	99.19%	0.00858	19.05	79.47%	38.38
28	0.00067	0.00033	0.00050	99.03%	53.59	99.19%	0.00863	17.36	78.79%	37.71
29	0.00070	0.00035	0.00052	98.98%	52.62	99.19%	0.00866	16.50	78.11%	37.03
30	0.00074	0.00039	0.00056	98.93%	51.65	99.19%	0.00869	15.43	77.43%	36.35
40	0.00156	0.00094	0.00125	98.14%	42.02		0.01125	8.98	70.23%	29.55
50	0.00335	0.00214	0.00274	96.40%	32.67		0.01559	5.68	61.64%	22.95
60	0.00797	0.00526	0.00662	92.54%	23.80		0.02426	3.67	50.95%	16.67
70	0.01935	0.01301	0.01618	83.67%	15.73		0.04288	2.65	37.10%	10.95
80	0.05555	0.03999	0.04777	63.44%	8.94		0.09473	1.98	19.63%	6.13
90	0.16790	0.13835	0.15313	25.70%	4.32		0.25025	1.63	3.73%	2.83
100	0.37248	0.33058	0.35153	1.71%	2.15		0.54683	1.56	0.03%	1.38

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.15%				
98.83%	0.01553	4.01	100.00%	48.10
98.83%	0.01196	43.33	98.45%	47.85
98.83%	0.01182	78.78	97.27%	47.42
98.83%	0.01177	101.43	96.12%	46.98
98.84%	0.01172	137.05	94.99%	46.54
98.84%	0.01169	147.09	93.88%	46.08
98.84%	0.01168	141.56	92.78%	45.62
98.84%	0.01166	146.64	91.69%	45.15
98.84%	0.01162	184.50	90.63%	44.68
98.85%	0.01162	150.91	89.57%	44.20
98.85%	0.01160	151.65	88.53%	43.71
98.85%	0.01159	143.94	87.50%	43.22
98.85%	0.01157	149.25	86.49%	42.72
98.85%	0.01157	111.83	85.49%	42.22
98.85%	0.01157	97.65	84.50%	41.70
98.86%	0.01158	78.27	83.52%	41.19
98.86%	0.01160	62.05	82.56%	40.66
98.86%	0.01162	51.66	81.60%	40.13
98.86%	0.01169	37.53	80.65%	39.60
98.86%	0.01169	35.33	79.71%	39.06
98.87%	0.01168	34.52	78.77%	38.52
98.87%	0.01169	32.12	77.85%	37.97
98.87%	0.01167	32.50	76.94%	37.41
98.87%	0.01169	29.66	76.05%	36.85
98.87%	0.01166	29.95	75.16%	36.28
98.87%	0.01167	27.96	74.28%	35.70
98.88%	0.01169	25.98	73.41%	35.12
98.88%	0.01167	25.91	72.55%	34.53
98.88%	0.01170	23.54	71.71%	33.93
98.88%	0.01171	22.33	70.87%	33.32
98.88%	0.01173	20.82	70.04%	32.71
	0.01498	11.96	61.43%	26.59
	0.02040	7.43	51.68%	20.64
	0.03085	4.66	40.37%	14.98
	0.05285	3.27	27.08%	9.82
	0.11227	2.35	12.48%	5.47
	0.28654	1.87	1.76%	2.49
	0.61980	1.76	0.01%	1.22

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.96%				
97.86%	0.02518	6.51	100.00%	38.34
97.88%	0.02146	77.75	97.48%	38.31
97.90%	0.02113	140.88	95.39%	38.14
97.92%	0.02090	180.15	93.37%	37.96
97.94%	0.02067	241.72	91.42%	37.75
97.96%	0.02046	257.40	89.53%	37.54
97.98%	0.02027	245.69	87.70%	37.31
98.00%	0.02007	252.48	85.92%	37.08
98.02%	0.01986	315.29	84.20%	36.83
98.04%	0.01969	255.67	82.53%	36.56
98.06%	0.01950	254.86	80.90%	36.29
98.08%	0.01931	239.93	79.32%	36.00
98.10%	0.01913	246.78	77.79%	35.70
98.11%	0.01897	183.26	76.30%	35.38
98.13%	0.01880	158.66	74.86%	35.06
98.15%	0.01865	126.01	73.45%	34.72
98.17%	0.01851	98.98	72.08%	34.37
98.19%	0.01837	81.65	70.75%	34.01
98.20%	0.01828	58.69	69.45%	33.64
98.22%	0.01813	54.76	68.18%	33.25
98.24%	0.01796	53.07	66.94%	32.86
98.25%	0.01782	48.95	65.74%	32.45
98.27%	0.01765	49.15	64.57%	32.03
98.29%	0.01751	44.45	63.43%	31.60
98.30%	0.01734	44.53	62.32%	31.15
98.32%	0.01721	41.22	61.24%	30.69
98.34%	0.01708	37.95	60.18%	30.22
98.35%	0.01692	37.56	59.15%	29.74
98.37%	0.01681	33.81	58.15%	29.24
98.38%	0.01668	31.79	57.18%	28.73
98.40%	0.01656	29.39	56.22%	28.21
	0.02091	16.70	46.73%	22.92
	0.02803	10.22	36.74%	17.78
	0.04133	6.25	26.22%	12.89
	0.06870	4.25	15.41%	8.43
	0.14015	2.93	5.68%	4.66
	0.34420	2.25	0.49%	2.07
	0.73575	2.09	0.00%	1.03

Target and fitted criteria are as follows:

Severe motor and cognitive disabilities, normal bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	80%	80%	0.005
2	20	62%	62%	0.006
2	30	50%	50%	0.001
Total				0.0114

Severe motor, cognitive and visual disabilities, low bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	70%	70%	0.000
2	20	49%	49%	0.000
2	30	37%	37%	0.000
Total				0.0000

Severe motor, cognitive and visual disabilities, normal bw

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	10	62%	62%	0.001
2	20	40%	40%	0.002
2	30	29%	29%	0.000
Total				0.0028

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United Kingdom, 2014-16)				Adjusted life table					
	Males	Females	Average	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00423	0.00352	0.00387	100.00%	1.38%	97.01%	0.03365	8.70	100.00%	32.40
1	0.00031	0.00025	0.00028	99.61%		97.05%	0.02976	107.81	96.63%	32.51
2	0.00016	0.00014	0.00015	99.59%		97.09%	0.02923	194.84	93.76%	32.50
3	0.00013	0.00011	0.00012	99.57%		97.13%	0.02879	248.21	91.02%	32.46
4	0.00009	0.00008	0.00009	99.56%		97.17%	0.02837	331.79	88.40%	32.41
5	0.00009	0.00007	0.00008	99.55%		97.21%	0.02797	351.85	85.89%	32.34
6	0.00009	0.00007	0.00008	99.54%		97.25%	0.02759	334.43	83.49%	32.25
7	0.00009	0.00007	0.00008	99.53%		97.29%	0.02721	342.25	81.18%	32.15
8	0.00007	0.00006	0.00006	99.53%		97.32%	0.02682	425.69	78.98%	32.04
9	0.00009	0.00007	0.00008	99.52%		97.36%	0.02646	343.68	76.86%	31.91
10	0.00009	0.00006	0.00008	99.51%		97.40%	0.02610	341.17	74.82%	31.76
11	0.00010	0.00006	0.00008	99.50%		97.43%	0.02574	319.81	72.87%	31.60
12	0.00010	0.00006	0.00008	99.50%		97.47%	0.02539	327.58	70.99%	31.42
13	0.00010	0.00011	0.00010	99.49%		97.50%	0.02506	242.17	69.19%	31.23
14	0.00013	0.00011	0.00012	99.48%		97.54%	0.02473	208.73	67.46%	31.02
15	0.00016	0.00014	0.00015	99.47%		97.57%	0.02442	165.03	65.79%	30.79
16	0.00021	0.00016	0.00019	99.45%		97.61%	0.02413	129.03	64.18%	30.55
17	0.00030	0.00015	0.00023	99.43%		97.64%	0.02383	105.93	62.63%	30.29
18	0.00041	0.00021	0.00031	99.41%		97.67%	0.02359	75.74	61.14%	30.02
19	0.00045	0.00021	0.00033	99.38%		97.70%	0.02329	70.37	59.70%	29.73
20	0.00047	0.00021	0.00034	99.35%		97.73%	0.02298	67.90	58.31%	29.43
21	0.00051	0.00022	0.00036	99.31%		97.77%	0.02270	62.35	56.97%	29.11
22	0.00050	0.00022	0.00036	99.28%		97.80%	0.02238	62.35	55.68%	28.78
23	0.00056	0.00023	0.00039	99.24%		97.83%	0.02211	56.13	54.43%	28.42
24	0.00055	0.00023	0.00039	99.20%		97.86%	0.02181	56.00	53.23%	28.06
25	0.00059	0.00025	0.00042	99.16%		97.89%	0.02154	51.60	52.06%	27.67
26	0.00063	0.00027	0.00045	99.12%		97.92%	0.02128	47.30	50.94%	27.27
27	0.00063	0.00027	0.00045	99.08%		97.94%	0.02100	46.61	49.86%	26.85
28	0.00067	0.00033	0.00050	99.03%		97.97%	0.02076	41.77	48.81%	26.42
29	0.00070	0.00035	0.00052	98.98%		98.00%	0.02051	39.10	47.80%	25.96
30	0.00074	0.00039	0.00056	98.93%		98.03%	0.02027	35.97	46.82%	25.50
40	0.00156	0.00094	0.00125	98.14%		0.02547	20.34	37.33%	20.71	
50	0.00335	0.00214	0.00274	96.40%		0.03389	12.35	27.85%	16.06	
60	0.00797	0.00526	0.00662	92.54%		0.04938	7.46	18.53%	11.63	
70	0.01935	0.01301	0.01618	83.67%		0.08089	5.00	9.83%	7.59	
80	0.05555	0.03999	0.04777	63.44%		0.16158	3.38	3.04%	4.18	
90	0.16790	0.13835	0.15313	25.70%		0.38853	2.54	0.17%	1.83	
100	0.37248	0.33058	0.35153	1.71%		0.82488	2.35	0.00%	0.92	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
2.43%				
95.03%	0.05341	13.80	100.00%	24.70
95.15%	0.04879	176.78	94.66%	25.06
95.27%	0.04749	316.60	90.04%	25.32
95.38%	0.04631	399.19	85.76%	25.56
95.49%	0.04515	528.11	81.79%	25.78
95.60%	0.04405	554.11	78.10%	25.97
95.71%	0.04299	521.03	74.66%	26.15
95.81%	0.04194	527.53	71.45%	26.30
95.92%	0.04090	649.29	68.45%	26.43
96.01%	0.03993	518.51	65.65%	26.53
96.11%	0.03896	509.22	63.03%	26.62
96.21%	0.03801	472.22	60.58%	26.67
96.30%	0.03709	478.56	58.27%	26.71
96.39%	0.03621	349.89	56.11%	26.72
96.48%	0.03535	298.31	54.08%	26.70
96.56%	0.03452	233.25	52.17%	26.66
96.65%	0.03372	180.34	50.37%	26.60
96.73%	0.03294	146.42	48.67%	26.51
96.81%	0.03223	103.47	47.07%	26.40
96.88%	0.03147	95.09	45.55%	26.26
96.96%	0.03072	90.77	44.12%	26.10
97.03%	0.03001	82.44	42.76%	25.91
97.11%	0.02928	81.57	41.48%	25.69
97.18%	0.02861	72.63	40.26%	25.45
97.25%	0.02792	71.69	39.11%	25.19
97.31%	0.02728	65.34	38.02%	24.90
97.38%	0.02666	59.24	36.98%	24.58
97.44%	0.02602	57.76	35.99%	24.24
97.50%	0.02545	51.20	35.06%	23.88
97.56%	0.02487	47.41	34.17%	23.49
97.62%	0.02431	43.15	33.32%	23.07
	0.03044	24.31	25.38%	18.73
	0.04028	14.68	17.88%	14.51
	0.05815	8.79	11.02%	10.50
	0.09416	5.82	5.22%	6.84
	0.18493	3.87	1.33%	3.74
	0.43682	2.85	0.05%	1.61
	0.92200	2.62	0.00%	0.82

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
3.24%				
93.09%	0.07266	18.78	100.00%	20.07
93.32%	0.06708	243.03	92.73%	20.61
93.53%	0.06479	431.95	90.04%	21.05
93.74%	0.06267	540.22	80.91%	21.48
93.95%	0.06061	708.87	75.84%	21.88
94.14%	0.05864	737.62	71.24%	22.26
94.33%	0.05674	687.81	67.06%	22.61
94.52%	0.05490	690.63	63.26%	22.95
94.69%	0.05311	843.04	59.79%	23.25
94.87%	0.05140	667.60	56.61%	23.53
95.03%	0.04974	650.20	53.70%	23.77
95.19%	0.04813	597.94	51.03%	23.99
95.35%	0.04657	600.94	48.57%	24.18
95.50%	0.04509	435.66	46.31%	24.34
95.65%	0.04365	368.32	44.22%	24.46
95.79%	0.04226	285.56	42.29%	24.55
95.92%	0.04094	218.90	40.50%	24.62
96.06%	0.03965	176.22	38.85%	24.65
96.18%	0.03846	123.45	37.31%	24.64
96.31%	0.03724	112.50	35.87%	24.61
96.43%	0.03605	106.49	34.54%	24.54
96.54%	0.03491	95.92	33.29%	24.44
96.66%	0.03379	94.12	32.13%	24.31
96.76%	0.03274	83.10	31.04%	24.14
96.87%	0.03169	81.35	30.03%	23.94
96.97%	0.03070	73.53	29.08%	23.71
97.07%	0.02975	66.11	28.18%	23.44
97.16%	0.02880	63.93	27.34%	23.14
97.26%	0.02793	56.19	26.56%	22.81
97.34%	0.02706	51.60	25.82%	22.46
97.43%	0.02624	46.57	25.12%	22.07
	0.03281	26.20	18.73%	17.91
	0.04333	15.79	12.83%	13.88
	0.06234	9.42	7.62%	10.03
	0.10050	6.21	3.42%	6.53
	0.19607	4.10	0.79%	3.56
	0.45986	3.00	0.02%	1.51
	0.96832	2.75	0.00%	0.78

Target and fitted criteria are as follows:

Severe ambulation disability

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	68%	67%	0.074
0	20	49%	50%	0.157
0	30	40%	40%	0.043
0	40	33%	33%	0.000
Total				0.2743

Severe manual dexterity disability

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	68%	68%	0.008
0	20	49%	50%	0.146
0	30	40%	38%	0.694
0	40	30%	31%	0.164
Total				1.0121

Severe cognitive disability

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	64%	60%	2.042
0	20	40%	42%	1.522
0	30	32%	33%	0.350
0	40	29%	28%	0.700
Total				4.6144

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

Age	Regular life table (United Kingdom, 2014-16)				Adjusted life table				
	Males	Females	Average	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00423	0.00352	0.00387	100.00%	95.68%	0.04687	12.11	100.00%	30.54
1	0.00031	0.00025	0.00028	99.61%	95.80%	0.04229	153.22	95.31%	31.02
2	0.00016	0.00014	0.00015	99.59%	95.91%	0.04105	273.70	91.28%	31.36
3	0.00013	0.00011	0.00012	99.57%	96.02%	0.03994	344.30	87.53%	31.69
4	0.00009	0.00008	0.00009	99.56%	96.12%	0.03885	454.44	84.04%	31.98
5	0.00009	0.00007	0.00008	99.55%	96.23%	0.03782	475.75	80.77%	32.26
6	0.00009	0.00007	0.00008	99.54%	96.33%	0.03683	446.37	77.72%	32.50
7	0.00009	0.00007	0.00008	99.53%	96.42%	0.03585	450.93	74.86%	32.73
8	0.00007	0.00006	0.00006	99.53%	96.52%	0.03489	553.75	72.17%	32.93
9	0.00009	0.00007	0.00008	99.52%	96.61%	0.03398	441.26	69.66%	33.10
10	0.00009	0.00006	0.00008	99.51%	96.70%	0.03308	432.40	67.29%	33.24
11	0.00010	0.00006	0.00008	99.50%	96.79%	0.03221	400.11	65.06%	33.36
12	0.00010	0.00006	0.00008	99.50%	96.87%	0.03135	404.58	62.97%	33.46
13	0.00010	0.00011	0.00010	99.49%	96.95%	0.03055	295.18	60.99%	33.52
14	0.00013	0.00011	0.00012	99.48%	97.04%	0.02976	251.14	59.13%	33.57
15	0.00016	0.00014	0.00015	99.47%	97.11%	0.02900	195.97	57.37%	33.58
16	0.00021	0.00016	0.00019	99.45%	97.19%	0.02828	151.21	55.71%	33.57
17	0.00030	0.00015	0.00023	99.43%	97.26%	0.02757	122.53	54.13%	33.53
18	0.00041	0.00021	0.00031	99.41%	97.34%	0.02693	86.45	52.64%	33.47
19	0.00045	0.00021	0.00033	99.38%	97.41%	0.02624	79.29	51.22%	33.38
20	0.00047	0.00021	0.00034	99.35%	97.48%	0.02556	75.52	49.88%	33.27
21	0.00051	0.00022	0.00036	99.31%	97.54%	0.02492	68.47	48.60%	33.12
22	0.00050	0.00022	0.00036	99.28%	97.61%	0.02427	67.59	47.39%	32.96
23	0.00056	0.00023	0.00039	99.24%	97.67%	0.02367	60.07	46.24%	32.77
24	0.00055	0.00023	0.00039	99.20%	97.73%	0.02305	59.17	45.15%	32.55
25	0.00059	0.00025	0.00042	99.16%	97.79%	0.02247	53.83	44.11%	32.30
26	0.00063	0.00027	0.00045	99.12%	97.85%	0.02192	48.71	43.11%	32.04
27	0.00063	0.00027	0.00045	99.08%	97.91%	0.02135	47.40	42.17%	31.74
28	0.00067	0.00033	0.00050	99.03%	97.96%	0.02085	41.94	41.27%	31.42
29	0.00070	0.00035	0.00052	98.98%	98.02%	0.02033	38.77	40.41%	31.08
30	0.00074	0.00039	0.00056	98.93%	98.07%	0.01985	35.22	39.59%	30.72
40	0.00156	0.00094	0.00125	98.14%	98.52%	0.01599	12.76	33.03%	25.89
50	0.00335	0.00214	0.00274	96.40%		0.02169	7.91	27.47%	20.09
60	0.00797	0.00526	0.00662	92.54%		0.03263	4.93	21.14%	14.58
70	0.01935	0.01301	0.01618	83.67%		0.05554	3.43	13.87%	9.56
80	0.05555	0.03999	0.04777	63.44%		0.11699	2.45	6.15%	5.32
90	0.16790	0.13835	0.15313	25.70%		0.29631	1.94	0.80%	2.41
100	0.37248	0.33058	0.35153	1.71%		0.63945	1.82	0.00%	1.18

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.85%				
95.98%	0.04394	11.35	100.00%	29.01
96.05%	0.03975	144.01	95.61%	29.32
96.12%	0.03890	259.30	91.81%	29.51
96.20%	0.03815	328.86	88.24%	29.68
96.27%	0.03742	437.61	84.87%	29.84
96.34%	0.03672	461.89	81.69%	29.98
96.40%	0.03605	436.92	78.69%	30.11
96.47%	0.03538	445.02	75.86%	30.21
96.53%	0.03471	550.97	73.17%	30.30
96.60%	0.03408	442.66	70.63%	30.38
96.66%	0.03346	437.33	68.23%	30.43
96.72%	0.03284	407.99	65.94%	30.47
96.78%	0.03224	415.94	63.78%	30.48
96.84%	0.03167	305.95	61.72%	30.48
96.90%	0.03110	262.43	59.77%	30.46
96.96%	0.03055	206.45	57.91%	30.42
97.02%	0.03003	160.59	56.14%	30.37
97.07%	0.02952	131.18	54.45%	30.29
97.12%	0.02906	93.29	52.85%	30.20
97.18%	0.02855	86.24	51.31%	30.09
97.23%	0.02803	82.82	49.85%	29.96
97.28%	0.02755	75.68	48.45%	29.81
97.33%	0.02704	75.32	47.11%	29.64
97.38%	0.02658	67.46	45.84%	29.45
97.43%	0.02609	66.99	44.62%	29.24
97.48%	0.02564	61.43	43.46%	29.01
97.52%	0.02521	56.02	42.34%	28.76
97.57%	0.02475	54.95	41.28%	28.49
97.61%	0.02435	48.99	40.25%	28.20
97.66%	0.02394	45.64	39.27%	27.89
97.70%	0.02354	41.78	38.33%	27.56
98.09%	0.02031	16.22	30.70%	23.24
	0.02725	9.93	24.31%	18.03
	0.04026	6.09	17.51%	13.07
	0.06709	4.15	10.43%	8.55
	0.13731	2.87	3.93%	4.74
	0.33833	2.21	0.36%	2.11
	0.72394	2.06	0.00%	1.04

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
3.41%				
94.33%	0.06032	15.59	100.00%	26.76
94.53%	0.05500	199.27	93.97%	27.45
94.71%	0.05301	353.42	91.81%	28.02
94.89%	0.05118	441.17	84.09%	28.56
95.07%	0.04940	577.82	79.79%	29.07
95.24%	0.04771	600.18	75.85%	29.56
95.40%	0.04609	558.69	72.23%	30.01
95.56%	0.04452	559.98	68.90%	30.44
95.71%	0.04299	682.31	65.83%	30.83
95.85%	0.04153	539.40	63.00%	31.20
96.00%	0.04012	524.42	60.38%	31.53
96.13%	0.03876	481.44	57.96%	31.82
96.26%	0.03743	483.00	55.72%	32.09
96.39%	0.03618	349.59	53.63%	32.32
96.51%	0.03497	295.07	51.69%	32.51
96.63%	0.03380	228.41	49.88%	32.67
96.75%	0.03269	174.83	48.20%	32.79
96.86%	0.03162	140.54	46.62%	32.89
96.97%	0.03063	98.34	45.15%	32.94
97.07%	0.02962	89.48	43.76%	32.97
97.17%	0.02862	84.56	42.47%	32.96
97.27%	0.02768	76.05	41.25%	32.92
97.36%	0.02675	74.50	40.11%	32.84
97.45%	0.02588	65.69	39.04%	32.73
97.54%	0.02501	64.20	38.03%	32.58
97.62%	0.02419	57.95	37.08%	32.41
97.70%	0.02341	52.03	36.18%	32.20
97.78%	0.02263	50.23	35.33%	31.96
97.86%	0.02192	44.10	34.53%	31.69
97.93%	0.02121	40.45	33.78%	31.39
98.00%	0.02055	36.46	33.06%	31.06
98.59%	0.01536	12.27	27.58%	26.32
	0.02089	7.61	23.10%	20.43
	0.03153	4.77	17.94%	14.83
	0.05387	3.33	11.93%	9.72
	0.11406	2.39	5.42%	5.41
	0.29025	1.90	0.74%	2.46
	0.62726	1.78	0.00%	1.20

Target and fitted criteria are as follows:

Severe visual disability

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	77%	77%	0.005
0	20	63%	64%	0.055
0	30	56%	55%	0.291
0	40	48%	49%	0.074
Total				0.4250

Severe motor, cognitive and visual

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	57%	60%	1.173
0	20	39%	39%	0.033
0	30	30%	27%	3.493
0	40	18%	20%	1.342
Total				6.0405

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United Kingdom, 2014-16)				Adjusted life table						
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00423	0.00352	0.00387	100.00%	80.91	2.70%	97.17%	0.03202	8.27	100.00%	41.37
1	0.00031	0.00025	0.00028	99.61%	80.22	97.25%	0.02777	100.61	96.80%	41.72	41.72
2	0.00016	0.00014	0.00015	99.59%	79.25	97.32%	0.02690	179.34	94.11%	41.90	41.90
3	0.00013	0.00011	0.00012	99.57%	78.26	97.40%	0.02615	225.39	91.58%	42.05	42.05
4	0.00009	0.00008	0.00009	99.56%	77.27	97.47%	0.02541	297.21	89.18%	42.16	42.16
5	0.00009	0.00007	0.00008	99.55%	76.27	97.54%	0.02472	310.96	86.92%	42.25	42.25
6	0.00009	0.00007	0.00008	99.54%	75.28	97.60%	0.02406	291.62	84.77%	42.31	42.31
7	0.00009	0.00007	0.00008	99.53%	74.29	97.67%	0.02341	294.43	82.73%	42.34	42.34
8	0.00007	0.00006	0.00006	99.53%	73.29	97.73%	0.02276	361.28	80.79%	42.34	42.34
9	0.00009	0.00007	0.00008	99.52%	72.30	97.79%	0.02216	287.80	78.95%	42.31	42.31
10	0.00009	0.00006	0.00008	99.51%	71.30	97.85%	0.02156	281.87	77.20%	42.26	42.26
11	0.00010	0.00006	0.00008	99.50%	70.31	97.91%	0.02099	260.70	75.54%	42.18	42.18
12	0.00010	0.00006	0.00008	99.50%	69.31	97.97%	0.02042	263.46	73.95%	42.07	42.07
13	0.00010	0.00011	0.00010	99.49%	68.32	98.02%	0.01989	192.21	72.44%	41.94	41.94
14	0.00013	0.00011	0.00012	99.48%	67.33	98.07%	0.01937	163.49	71.00%	41.78	41.78
15	0.00016	0.00014	0.00015	99.47%	66.33	98.13%	0.01888	127.58	69.63%	41.60	41.60
16	0.00021	0.00016	0.00019	99.45%	65.34	98.18%	0.01841	98.47	68.31%	41.39	41.39
17	0.00030	0.00015	0.00023	99.43%	64.36	98.23%	0.01796	79.82	67.05%	41.16	41.16
18	0.00041	0.00021	0.00031	99.41%	63.37	98.27%	0.01756	56.39	65.85%	40.90	40.90
19	0.00045	0.00021	0.00033	99.38%	62.39	98.32%	0.01712	51.71	64.69%	40.62	40.62
20	0.00047	0.00021	0.00034	99.35%	61.41	98.37%	0.01667	49.25	63.59%	40.32	40.32
21	0.00051	0.00022	0.00036	99.31%	60.43	98.41%	0.01625	44.66	62.53%	40.00	40.00
22	0.00050	0.00022	0.00036	99.28%	59.45	98.45%	0.01582	44.07	61.51%	39.65	39.65
23	0.00056	0.00023	0.00039	99.24%	58.47	98.50%	0.01544	39.18	60.54%	39.28	39.28
24	0.00055	0.00023	0.00039	99.20%	57.50	98.54%	0.01503	38.58	59.60%	38.89	38.89
25	0.00059	0.00025	0.00042	99.16%	56.52	98.58%	0.01466	35.11	58.71%	38.47	38.47
26	0.00063	0.00027	0.00045	99.12%	55.54	98.61%	0.01430	31.79	57.85%	38.04	38.04
27	0.00063	0.00027	0.00045	99.08%	54.57	98.65%	0.01393	30.92	57.02%	37.58	37.58
28	0.00067	0.00033	0.00050	99.03%	53.59	98.69%	0.01361	27.39	56.22%	37.10	37.10
29	0.00070	0.00035	0.00052	98.98%	52.62	98.72%	0.01329	25.33	55.46%	36.61	36.61
30	0.00074	0.00039	0.00056	98.93%	51.65	98.76%	0.01298	23.03	54.72%	36.10	36.10
40	0.00156	0.00094	0.00125	98.14%	42.02	99.06%	0.01069	8.53	48.59%	30.05	30.05
50	0.00335	0.00214	0.00274	96.40%	32.67		0.01487	5.42	42.92%	23.34	23.34
60	0.00797	0.00526	0.00662	92.54%	23.80		0.02327	3.52	35.78%	16.96	16.96
70	0.01935	0.01301	0.01618	83.67%	15.73		0.04138	2.56	26.38%	11.14	11.14
80	0.05555	0.03999	0.04777	63.44%	8.94		0.09209	1.93	14.24%	6.24	6.24
90	0.16790	0.13835	0.15313	25.70%	4.32		0.24480	1.60	2.83%	2.89	2.89
100	0.37248	0.33058	0.35153	1.71%	2.15		0.53587	1.52	0.03%	1.41	1.41

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
1.67%				
94.61%	0.05754	14.87	100.00%	21.85
94.70%	0.05323	192.88	94.25%	22.15
94.79%	0.05223	348.18	89.23%	22.37
94.88%	0.05132	442.44	84.57%	22.57
94.96%	0.05044	589.90	80.23%	22.77
95.05%	0.04959	623.74	76.18%	22.95
95.13%	0.04876	591.05	72.40%	23.12
95.21%	0.04794	603.06	68.87%	23.28
95.29%	0.04713	748.03	65.57%	23.43
95.37%	0.04635	601.96	62.48%	23.56
95.45%	0.04558	595.76	59.59%	23.68
95.53%	0.04482	556.74	56.87%	23.79
95.60%	0.04407	568.59	54.32%	23.88
95.67%	0.04335	418.88	51.93%	23.96
95.75%	0.04264	359.86	49.68%	24.02
95.82%	0.04196	283.51	47.56%	24.07
95.89%	0.04130	220.84	45.56%	24.10
95.96%	0.04064	180.64	43.68%	24.12
96.02%	0.04005	128.57	41.91%	24.12
96.09%	0.03940	119.05	40.23%	24.10
96.16%	0.03876	114.50	38.64%	24.07
96.22%	0.03814	104.78	37.14%	24.02
96.28%	0.03750	104.46	35.73%	23.95
96.35%	0.03691	93.69	34.39%	23.87
96.41%	0.03630	93.19	33.12%	23.76
96.47%	0.03572	85.56	31.92%	23.64
96.53%	0.03516	78.14	30.78%	23.50
96.59%	0.03458	76.76	29.69%	23.34
96.64%	0.03405	68.52	28.67%	23.15
96.70%	0.03352	63.91	27.69%	22.95
96.75%	0.03300	58.57	26.76%	22.73
97.26%	0.02863	22.86	19.55%	19.41
0.03795	13.83	14.07%	15.04	
0.05495	8.31	8.91%	10.89	
0.08932	5.52	4.40%	7.10	
0.17642	3.69	1.20%	3.89	
0.41922	2.74	0.05%	1.68	
0.88660	2.52	0.00%	0.85	

Target and fitted criteria are as follows:

GMFCS V

Probabilities of survival				
From	To	Target	Fitted	Deviation
2	5	92%	92%	0.009
2	10	82%	81%	0.193
2	15	71%	71%	0.018
2	20	61%	62%	0.093
Total				0.3131

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

Age	Regular life table (Sweden, smoothed, 2013-2016)					Adjusted life table				
	Male	Female	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00261	0.00215	0.00238	100.00%	81.99	0.00%	0.02861	12.04	100.00%	29.16
1	0.00019	0.00017	0.00018	99.76%	81.18	97.37%	0.02647	148.10	97.14%	29.01
2	0.00013	0.00012	0.00012	99.74%	80.20	97.37%	0.02642	217.43	94.57%	28.78
3	0.00011	0.00010	0.00010	99.73%	79.21	97.37%	0.02640	254.09	92.07%	28.55
4	0.00010	0.00010	0.00010	99.72%	78.22	97.37%	0.02639	272.13	89.64%	28.31
5	0.00009	0.00008	0.00008	99.71%	77.22	97.37%	0.02638	311.05	87.27%	28.06
6	0.00008	0.00008	0.00008	99.70%	76.23	97.37%	0.02638	333.97	84.97%	27.81
7	0.00007	0.00008	0.00007	99.70%	75.24	97.37%	0.02637	365.41	82.73%	27.55
8	0.00006	0.00007	0.00007	99.69%	74.24	97.37%	0.02636	396.93	80.55%	27.28
9	0.00005	0.00007	0.00006	99.68%	73.25	97.37%	0.02636	410.12	78.42%	27.01
10	0.00006	0.00007	0.00007	99.68%	72.25	97.37%	0.02636	401.06	76.36%	26.73
11	0.00007	0.00008	0.00007	99.67%	71.26	97.37%	0.02637	352.47	74.34%	26.44
12	0.00009	0.00009	0.00009	99.66%	70.26	97.37%	0.02638	308.21	72.38%	26.14
13	0.00011	0.00010	0.00010	99.65%	69.27	97.37%	0.02640	256.43	70.47%	25.83
14	0.00014	0.00011	0.00012	99.64%	68.27	97.37%	0.02642	217.88	68.61%	25.52
15	0.00018	0.00012	0.00015	99.63%	67.28	97.37%	0.02644	177.25	66.80%	25.20
16	0.00023	0.00014	0.00019	99.62%	66.29	97.37%	0.02648	142.77	65.03%	24.87
17	0.00030	0.00016	0.00023	99.60%	65.31	97.37%	0.02652	115.57	63.31%	24.53
18	0.00038	0.00017	0.00027	99.57%	64.32	97.37%	0.02657	96.82	61.63%	24.19
19	0.00045	0.00019	0.00032	99.55%	63.34	97.37%	0.02661	82.93	59.99%	23.83
20	0.00052	0.00020	0.00036	99.52%	62.36	97.37%	0.02665	73.86	58.40%	23.47
21	0.00057	0.00022	0.00039	99.48%	61.38		0.02710	68.90	56.84%	23.10
22	0.00062	0.00023	0.00043	99.44%	60.40		0.02757	64.63	55.30%	22.73
23	0.00065	0.00025	0.00045	99.40%	59.43		0.02804	62.29	53.78%	22.36
24	0.00069	0.00026	0.00047	99.35%	58.46		0.02852	60.41	52.27%	21.99
25	0.00072	0.00026	0.00049	99.31%	57.48		0.02901	59.00	50.78%	21.62
26	0.00073	0.00027	0.00050	99.26%	56.51		0.02951	58.83	49.31%	21.25
27	0.00074	0.00028	0.00051	99.21%	55.54		0.03003	58.64	47.85%	20.88
28	0.00074	0.00029	0.00051	99.16%	54.57		0.03056	59.38	46.41%	20.51
29	0.00074	0.00031	0.00052	99.11%	53.60		0.03111	59.53	45.00%	20.14
30	0.00076	0.00032	0.00054	99.05%	52.62		0.03169	58.66	43.60%	19.78
40	0.00097	0.00055	0.00076	98.46%	42.91		0.03896	51.45	30.63%	16.08
50	0.00230	0.00157	0.00193	97.33%	33.34		0.05110	26.43	19.55%	12.44
60	0.00640	0.00435	0.00537	94.29%	24.23		0.07303	13.59	10.55%	8.96
70	0.01736	0.01166	0.01451	86.32%	15.94		0.11737	8.09	4.10%	5.79
80	0.05367	0.03705	0.04536	67.05%	8.87		0.23016	5.07	0.73%	3.06
90	0.17937	0.13966	0.15951	27.06%	4.07		0.56240	3.53	0.01%	1.18
100	0.42540	0.37565	0.40053	1.33%	1.79		1.31638	3.29	0.00%	0.54

Target and fitted criteria are as follows:

Mild+0

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	100%	99%	0.022
0	20	99%	99%	0.001
0	30	98%	99%	0.006
0	40	98%	98%	0.000
Total				0.0291

Moderate+0

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	99%	98%	0.120
0	20	99%	97%	0.735
0	30	98%	95%	0.881
0	40	89%	93%	1.434
Total				3.1703

Severe+0

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	91%	93%	0.309
0	20	90%	88%	0.537
0	30	84%	84%	0.092
Total				0.9380

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

Age	Regular life table (Australia, 2014-16)				Adjusted life table					
	Males	Females	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00357	0.00330	0.00344	100.00%	82.38	0.00%	99.99%	1.03	100.00%	81.86
1	0.00029	0.00022	0.00026	99.66%	81.66	99.99%	0.00038	1.47	99.64%	81.15
2	0.00016	0.00013	0.00015	99.63%	80.69	99.99%	0.00027	1.83	99.61%	80.18
3	0.00014	0.00011	0.00013	99.62%	79.70	99.99%	0.00025	1.96	99.58%	79.20
4	0.00012	0.00010	0.00011	99.60%	78.71	99.99%	0.00023	2.10	99.56%	78.22
5	0.00011	0.00009	0.00010	99.59%	77.72	99.99%	0.00022	2.21	99.53%	77.24
6	0.00010	0.00008	0.00009	99.58%	76.72	99.99%	0.00021	2.34	99.51%	76.26
7	0.00009	0.00007	0.00008	99.57%	75.73	99.99%	0.00020	2.51	99.49%	75.27
8	0.00008	0.00007	0.00008	99.57%	74.74	99.99%	0.00020	2.61	99.47%	74.29
9	0.00008	0.00007	0.00008	99.56%	73.74	99.99%	0.00020	2.61	99.45%	73.30
10	0.00008	0.00007	0.00008	99.55%	72.75	99.99%	0.00020	2.61	99.43%	72.32
11	0.00009	0.00008	0.00009	99.54%	71.75	99.99%	0.00021	2.42	99.41%	71.33
12	0.00010	0.00009	0.00010	99.54%	70.76	99.99%	0.00022	2.27	99.39%	70.34
13	0.00012	0.00010	0.00011	99.53%	69.77	99.99%	0.00023	2.10	99.37%	69.36
14	0.00016	0.00013	0.00015	99.52%	68.77	99.99%	0.00027	1.83	99.35%	68.37
15	0.00022	0.00015	0.00019	99.50%	67.78	99.99%	0.00031	1.65	99.32%	67.39
16	0.00030	0.00018	0.00024	99.48%	66.80	99.99%	0.00036	1.50	99.29%	66.41
17	0.00038	0.00020	0.00029	99.46%	65.81	99.99%	0.00041	1.42	99.25%	65.44
18	0.00045	0.00021	0.00033	99.43%	64.83	99.99%	0.00045	1.37	99.21%	64.46
19	0.00052	0.00022	0.00037	99.40%	63.85	99.99%	0.00049	1.33	99.17%	63.49
20	0.00056	0.00023	0.00040	99.36%	62.87	99.99%	0.00052	1.31	99.12%	62.52
21	0.00059	0.00023	0.00041	99.32%	61.90	99.99%	0.00053	1.29	99.07%	61.56
22	0.00061	0.00024	0.00043	99.28%	60.92	99.99%	0.00055	1.28	99.02%	60.59
23	0.00063	0.00025	0.00044	99.24%	59.95	99.99%	0.00056	1.27	98.96%	59.62
24	0.00064	0.00026	0.00045	99.19%	58.98	99.99%	0.00057	1.27	98.91%	58.65
25	0.00065	0.00027	0.00046	99.15%	58.00	99.99%	0.00058	1.26	98.85%	57.69
26	0.00066	0.00028	0.00047	99.10%	57.03	99.99%	0.00059	1.26	98.79%	56.72
27	0.00068	0.00029	0.00049	99.06%	56.06	99.99%	0.00061	1.25	98.74%	55.75
28	0.00070	0.00031	0.00051	99.01%	55.08	99.99%	0.00063	1.24	98.68%	54.79
29	0.00073	0.00033	0.00053	98.96%	54.11	99.99%	0.00065	1.23	98.61%	53.82
30	0.00077	0.00036	0.00057	98.91%	53.14	99.99%	0.00069	1.21	98.55%	52.86
40	0.00142	0.00078	0.00110	98.14%	43.51	99.99%	0.00122	1.11	97.67%	43.28
50	0.00298	0.00180	0.00239	96.59%	34.12		0.00254	1.06	96.00%	33.94
60	0.00675	0.00398	0.00537	93.23%	25.15		0.00557	1.04	92.49%	25.01
70	0.01613	0.00994	0.01304	85.99%	16.79		0.01335	1.02	85.09%	16.70
80	0.04793	0.03188	0.03991	68.61%	9.59		0.04045	1.01	67.62%	9.53
90	0.15455	0.12362	0.13909	31.16%	4.58		0.14023	1.01	30.45%	4.55
100	0.34389	0.31851	0.33120	2.52%	2.20		0.33358	1.01	2.41%	2.18

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.85%	0.00489	1.42	100.00%	76.42
99.85%	0.00171	6.72	99.51%	75.79
99.85%	0.00160	11.06	99.34%	74.92
99.85%	0.00158	12.67	99.18%	74.04
99.85%	0.00157	14.26	99.02%	73.16
99.85%	0.00156	15.59	98.87%	72.27
99.85%	0.00155	17.21	98.71%	71.38
99.85%	0.00154	19.24	98.56%	70.49
99.85%	0.00153	20.45	98.41%	69.60
99.85%	0.00153	20.45	98.26%	68.71
99.85%	0.00153	20.45	98.11%	67.81
99.85%	0.00154	18.16	97.96%	66.92
99.85%	0.00155	16.36	97.81%	66.02
99.85%	0.00157	14.26	97.65%	65.12
99.85%	0.00160	11.06	97.50%	64.22
99.85%	0.00164	8.89	97.34%	63.32
99.85%	0.00170	7.08	97.18%	62.43
99.85%	0.00175	6.03	97.02%	61.53
99.85%	0.00179	5.42	96.85%	60.64
99.85%	0.00183	4.94	96.68%	59.75
99.85%	0.00185	4.69	96.50%	58.86
99.85%	0.00187	4.56	96.32%	57.97
99.85%	0.00188	4.43	96.14%	57.07
99.85%	0.00190	4.31	95.96%	56.18
99.85%	0.00191	4.24	95.78%	55.29
99.85%	0.00192	4.17	95.60%	54.39
99.85%	0.00193	4.10	95.41%	53.49
99.85%	0.00194	4.01	95.23%	52.60
99.85%	0.00196	3.89	95.04%	51.70
99.85%	0.00199	3.75	94.86%	50.80
99.85%	0.00202	3.58	94.67%	49.90
99.85%	0.00256	2.33	92.57%	40.91
99.85%	0.00425	1.78	89.64%	32.07
99.85%	0.00789	1.47	84.69%	23.63
99.85%	0.01681	1.29	75.73%	15.76
99.85%	0.04652	1.17	57.53%	8.98
99.85%	0.15293	1.10	23.59%	4.26
99.85%	0.36003	1.09	1.47%	2.02

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
3.32%				
99.17%	0.01167	3.40	100.00%	65.89
99.20%	0.00824	32.31	98.83%	65.66
99.23%	0.00786	54.24	98.02%	65.20
99.25%	0.00759	60.70	97.25%	64.72
99.28%	0.00733	66.59	96.51%	64.21
99.30%	0.00708	70.76	95.80%	63.68
99.33%	0.00683	75.94	95.13%	63.13
99.35%	0.00660	82.51	94.48%	62.56
99.37%	0.00638	85.06	93.85%	61.97
99.39%	0.00617	82.27	93.25%	61.37
99.41%	0.00597	79.57	92.68%	60.74
99.43%	0.00578	68.02	92.12%	60.11
99.45%	0.00560	58.98	91.59%	59.45
99.47%	0.00543	49.41	91.08%	58.78
99.49%	0.00529	36.50	90.58%	58.10
99.50%	0.00516	27.90	90.10%	57.41
99.52%	0.00505	21.05	89.64%	56.70
99.53%	0.00494	17.04	89.19%	55.99
99.55%	0.00483	14.63	88.75%	55.27
99.57%	0.00472	12.75	88.32%	54.53
99.58%	0.00460	11.64	87.90%	53.79
99.59%	0.00447	10.91	87.50%	53.03
99.61%	0.00435	10.24	87.11%	52.27
99.62%	0.00424	9.63	86.73%	51.50
99.63%	0.00412	9.16	86.36%	50.71
99.64%	0.00401	8.72	86.00%	49.92
99.66%	0.00390	8.30	85.66%	49.12
99.67%	0.00380	7.84	85.32%	48.31
99.68%	0.00371	7.35	85.00%	47.49
99.69%	0.00363	6.85	84.68%	46.67
99.70%	0.00356	6.31	84.38%	45.84
	0.00476	4.33	81.02%	37.52
	0.00706	2.95	76.54%	29.41
	0.01170	2.18	70.01%	21.65
	0.02253	1.73	59.81%	14.42
	0.05652	1.42	42.10%	8.19
	0.17387	1.25	14.76%	3.85
	0.40362	1.22	0.61%	1.81

Target and fitted criteria are as follows:

Severe+1

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	86%	87%	0.148
0	20	78%	77%	0.238
0	30	69%	67%	0.422
0	40	57%	58%	0.442
Total				1.2500

Severe+2

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	80%	81%	0.165
0	20	68%	66%	0.782
0	30	52%	53%	0.221
Total				1.1684

Severe+3

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	81%	73%	7.338
0	20	52%	53%	0.582
0	30	35%	39%	3.891
0	40	31%	28%	1.896
Total				13.7075

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (Australia, 2014-16)				Adjusted life table					
	Males	Females	Average	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	
0	0.00357	0.00330	0.00344	100.00%	82.38	0.00%	0.01629	4.74	100.00%	47.22
1	0.00029	0.00022	0.00026	99.66%	81.66	98.71%	0.01315	51.58	98.37%	46.99
2	0.00016	0.00013	0.00015	99.63%	80.69	98.71%	0.01304	89.95	97.08%	46.61
3	0.00014	0.00011	0.00013	99.62%	79.70	98.71%	0.01302	104.19	95.81%	46.22
4	0.00012	0.00010	0.00011	99.60%	78.71	98.71%	0.01301	118.26	94.56%	45.82
5	0.00011	0.00009	0.00010	99.59%	77.72	98.71%	0.01300	129.99	93.33%	45.42
6	0.00010	0.00008	0.00009	99.58%	76.72	98.71%	0.01299	144.32	92.12%	45.01
7	0.00009	0.00007	0.00008	99.57%	75.73	98.71%	0.01298	162.24	90.92%	44.60
8	0.00008	0.00007	0.00008	99.57%	74.74	98.71%	0.01297	172.99	89.74%	44.18
9	0.00008	0.00007	0.00008	99.56%	73.74	98.71%	0.01297	172.99	88.58%	43.75
10	0.00008	0.00007	0.00008	99.55%	72.75	98.71%	0.01297	172.99	87.43%	43.32
11	0.00009	0.00008	0.00009	99.54%	71.75	98.71%	0.01298	152.75	86.30%	42.88
12	0.00010	0.00009	0.00010	99.54%	70.76	98.71%	0.01299	136.78	85.17%	42.44
13	0.00012	0.00010	0.00011	99.53%	69.77	98.71%	0.01301	118.26	84.07%	41.99
14	0.00016	0.00013	0.00015	99.52%	68.77	98.71%	0.01304	89.95	82.97%	41.54
15	0.00022	0.00015	0.00019	99.50%	67.78	98.71%	0.01308	70.72	81.89%	41.08
16	0.00030	0.00018	0.00024	99.48%	66.80	98.71%	0.01314	54.74	80.82%	40.62
17	0.00038	0.00020	0.00029	99.46%	65.81	98.71%	0.01319	45.47	79.76%	40.15
18	0.00045	0.00021	0.00033	99.43%	64.83	98.71%	0.01323	40.08	78.71%	39.68
19	0.00052	0.00022	0.00037	99.40%	63.85	98.71%	0.01327	35.85	77.67%	39.21
20	0.00056	0.00023	0.00040	99.36%	62.87	98.71%	0.01329	33.65	76.64%	38.73
21	0.00059	0.00023	0.00041	99.32%	61.90	98.71%	0.01330	32.45	75.62%	38.25
22	0.00061	0.00024	0.00043	99.28%	60.92	98.71%	0.01332	31.34	74.61%	37.75
23	0.00063	0.00025	0.00044	99.24%	59.95	98.71%	0.01333	30.31	73.62%	37.26
24	0.00064	0.00026	0.00045	99.19%	58.98	98.71%	0.01334	29.65	72.64%	36.75
25	0.00065	0.00027	0.00046	99.15%	58.00	98.71%	0.01335	29.03	71.67%	36.24
26	0.00066	0.00028	0.00047	99.10%	57.03	98.71%	0.01336	28.43	70.71%	35.73
27	0.00068	0.00029	0.00049	99.06%	56.06	98.71%	0.01338	27.58	69.77%	35.20
28	0.00070	0.00031	0.00051	99.01%	55.08	98.71%	0.01340	26.53	68.83%	34.68
29	0.00073	0.00033	0.00053	98.96%	54.11	98.71%	0.01342	25.33	67.91%	34.14
30	0.00077	0.00036	0.00057	98.91%	53.14	98.71%	0.01346	23.82	67.00%	33.60
40	0.00142	0.00078	0.00110	98.14%	43.51	98.71%	0.01399	12.71	58.38%	27.83
50	0.00298	0.00180	0.00239	96.59%	34.12		0.01882	7.88	49.72%	21.79
60	0.00675	0.00398	0.00537	93.23%	25.15		0.02766	5.16	39.66%	16.01
70	0.01613	0.00994	0.01304	85.99%	16.79		0.04643	3.56	27.86%	10.62
80	0.04793	0.03188	0.03991	68.61%	9.59		0.09838	2.47	14.19%	5.96
90	0.15455	0.12362	0.13909	31.16%	4.58		0.26148	1.88	2.50%	2.69
100	0.34389	0.31851	0.33120	2.52%	2.20		0.58605	1.77	0.01%	1.24

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
97.95%	0.02384	6.94	100.00%	35.71
97.95%	0.02072	81.27	97.62%	35.57
97.95%	0.02062	142.18	95.59%	35.31
97.95%	0.02060	164.78	93.62%	35.05
97.95%	0.02058	187.11	91.69%	34.77
97.95%	0.02057	205.72	89.81%	34.49
97.95%	0.02056	228.47	87.96%	34.21
97.95%	0.02055	256.91	86.15%	33.91
97.95%	0.02055	273.97	84.38%	33.62
97.95%	0.02055	273.97	82.65%	33.31
97.95%	0.02055	273.97	80.95%	33.00
97.95%	0.02056	241.86	79.28%	32.68
97.95%	0.02057	216.50	77.65%	32.36
97.95%	0.02058	187.11	76.06%	32.03
97.95%	0.02062	142.18	74.49%	31.69
97.95%	0.02066	111.65	72.96%	31.34
97.95%	0.02071	86.29	71.45%	31.00
97.95%	0.02076	71.58	69.97%	30.64
97.95%	0.02080	63.02	68.52%	30.28
97.95%	0.02084	56.32	67.09%	29.91
97.95%	0.02086	52.81	65.69%	29.54
97.95%	0.02088	50.92	64.32%	29.16
97.95%	0.02089	49.15	62.98%	28.77
97.95%	0.02091	47.51	61.67%	28.37
97.95%	0.02092	46.48	60.38%	27.97
97.95%	0.02093	45.49	59.11%	27.55
97.95%	0.02093	44.54	57.88%	27.13
97.95%	0.02095	43.19	56.66%	26.70
97.95%	0.02097	41.52	55.48%	26.26
97.95%	0.02099	39.61	54.31%	25.81
97.95%	0.02103	37.22	53.17%	25.35
0.02609	23.72	42.08%	20.73	
0.03426	14.33	31.21%	16.21	
0.04861	9.06	20.75%	11.88	
0.07781	5.97	11.20%	7.84	
0.15332	3.84	3.67%	4.34	
0.37647	2.71	0.24%	1.88	
0.82546	2.49	0.00%	0.88	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
96.95%	0.03387	9.86	100.00%	28.03
96.95%	0.03079	120.73	96.61%	28.00
96.95%	0.03068	211.58	93.64%	27.87
96.95%	0.03066	245.28	90.77%	27.74
96.95%	0.03065	278.60	87.98%	27.60
96.95%	0.03064	306.36	85.29%	27.46
96.95%	0.03063	340.29	82.67%	27.31
96.95%	0.03062	382.71	80.14%	27.15
96.95%	0.03061	408.16	77.69%	27.00
96.95%	0.03061	408.16	75.31%	26.83
96.95%	0.03061	408.16	73.00%	26.66
96.95%	0.03062	360.25	70.77%	26.49
96.95%	0.03063	322.43	68.60%	26.31
96.95%	0.03065	278.60	66.50%	26.13
96.95%	0.03068	211.58	64.46%	25.94
96.95%	0.03072	166.05	62.49%	25.74
96.95%	0.03077	128.22	60.57%	25.54
96.95%	0.03082	106.28	58.70%	25.34
96.95%	0.03086	93.51	56.89%	25.13
96.95%	0.03090	83.51	55.14%	24.91
96.95%	0.03092	78.28	53.43%	24.69
96.95%	0.03094	75.46	51.78%	24.46
96.95%	0.03095	72.83	50.18%	24.23
96.95%	0.03097	70.38	48.63%	23.99
96.95%	0.03098	68.83	47.12%	23.74
96.95%	0.03099	67.36	45.66%	23.48
96.95%	0.03099	65.95	44.25%	23.21
96.95%	0.03101	63.94	42.87%	22.94
96.95%	0.03103	61.44	41.55%	22.66
96.95%	0.03105	58.59	40.26%	22.37
96.95%	0.03109	55.02	39.01%	22.07
0.03161	28.73	28.38%	18.55	
0.04129	17.28	19.76%	14.50	
0.05815	10.84	12.07%	10.62	
0.09210	7.07	5.77%	6.99	
0.17834	4.47	1.54%	3.85	
0.42885	3.08	0.06%	1.63	
0.93452	2.82	0.00%	0.78	

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				0.2428

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

Age	Regular life table (Japan, 2016)					Adjusted life table				
	Male	Female	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00194	0.00198	0.00196	100.00%	83.71	3.48%	0.02807	14.32	100.00%	44.53
1	0.00031	0.00029	0.00030	99.80%	82.87	97.48%	0.02554	85.13	97.19%	44.80
2	0.00021	0.00019	0.00020	99.77%	81.90	97.56%	0.02456	122.82	94.71%	44.96
3	0.00014	0.00012	0.00013	99.75%	80.91	97.65%	0.02365	181.90	92.38%	45.08
4	0.00010	0.00009	0.00010	99.74%	79.93	97.73%	0.02279	239.94	90.20%	45.16
5	0.00009	0.00007	0.00008	99.73%	78.93	97.81%	0.02199	274.88	88.14%	45.20
6	0.00009	0.00007	0.00008	99.72%	77.94	97.89%	0.02123	265.35	86.21%	45.21
7	0.00008	0.00006	0.00007	99.72%	76.95	97.96%	0.02048	292.60	84.38%	45.18
8	0.00007	0.00005	0.00006	99.71%	75.95	98.03%	0.01976	329.37	82.65%	45.11
9	0.00007	0.00006	0.00007	99.70%	74.96	98.10%	0.01908	293.56	81.01%	45.01
10	0.00007	0.00006	0.00007	99.70%	73.96	98.16%	0.01842	283.38	79.47%	44.88
11	0.00007	0.00007	0.00007	99.69%	72.96	98.23%	0.01779	254.08	78.00%	44.71
12	0.00008	0.00007	0.00008	99.68%	71.97	98.29%	0.01717	228.99	76.62%	44.51
13	0.00010	0.00007	0.00009	99.68%	70.98	98.35%	0.01659	195.17	75.30%	44.28
14	0.00013	0.00008	0.00011	99.67%	69.98	98.41%	0.01603	152.71	74.05%	44.02
15	0.00017	0.00009	0.00013	99.66%	68.99	98.46%	0.01550	119.27	72.86%	43.73
16	0.00021	0.00011	0.00016	99.64%	68.00	98.52%	0.01500	93.75	71.74%	43.41
17	0.00026	0.00012	0.00019	99.63%	67.01	98.57%	0.01451	76.38	70.66%	43.06
18	0.00031	0.00013	0.00022	99.61%	66.02	98.62%	0.01404	63.84	69.63%	42.69
19	0.00038	0.00014	0.00026	99.59%	65.04	98.67%	0.01360	52.32	68.66%	42.29
20	0.00045	0.00016	0.00031	99.56%	64.05	98.71%	0.01318	43.22	67.72%	41.87
21	0.00049	0.00019	0.00034	99.53%	63.07	98.76%	0.01277	37.56	66.83%	41.42
22	0.00050	0.00022	0.00036	99.50%	62.09	98.80%	0.01236	34.32	65.98%	40.95
23	0.00051	0.00024	0.00038	99.46%	61.11	98.84%	0.01195	31.88	65.16%	40.45
24	0.00051	0.00025	0.00038	99.42%	60.14	98.88%	0.01156	30.41	64.38%	39.94
25	0.00052	0.00026	0.00039	99.39%	59.16	98.92%	0.01118	28.66	63.64%	39.40
26	0.00053	0.00025	0.00039	99.35%	58.18	98.96%	0.01080	27.70	62.93%	38.84
27	0.00054	0.00025	0.00040	99.31%	57.21	98.99%	0.01044	26.44	62.25%	38.26
28	0.00055	0.00025	0.00040	99.27%	56.23	99.03%	0.01010	25.25	61.60%	37.65
29	0.00056	0.00027	0.00042	99.23%	55.25	99.06%	0.00978	23.56	60.97%	37.03
30	0.00058	0.00028	0.00043	99.19%	54.27	99.10%	0.00947	22.01	60.38%	36.39
40	0.00098	0.00060	0.00079	98.64%	44.55		0.01180	14.94	54.38%	29.85
50	0.00264	0.00151	0.00208	97.40%	35.04		0.01607	7.75	47.46%	23.45
60	0.00670	0.00306	0.00488	94.40%	25.97		0.02376	4.87	39.13%	17.34
70	0.01702	0.00707	0.01205	87.46%	17.58		0.03994	3.32	28.85%	11.68
80	0.04718	0.02308	0.03513	71.70%	10.19		0.08326	2.37	16.34%	6.67
90	0.15129	0.09489	0.12309	35.83%	4.89		0.22346	1.82	3.83%	3.06
100	0.37355	0.29406	0.33381	3.35%	2.17		0.55979	1.68	0.04%	1.29

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%	0.795
4	15	48%	47%	0.086
4	20	33%	35%	0.963
4	25	25%	26%	0.382
4	30	21%	20%	0.770
Total				2.9959

Does not lift head, Fed orally by others

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	80%	78%	0.455
4	15	66%	64%	0.470
4	20	51%	53%	1.000
4	25	43%	44%	0.500
4	30	39%	37%	0.648
Total				3.0729

Does not lift head, Feeds self orally

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.226
4	15	88%	90%	0.410
4	20	88%	87%	0.076
Total				0.7124

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

Age	Regular life table (United States Life Tables, 2014)					Adjusted life table				
	Mortality	Mortality	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	1.21%	0.07851	13.49	100.00%	14.58
1	0.00039	0.00034	0.00037	99.42%	78.18	92.69%	0.07258	196.40	92.15%	14.77
2	0.00028	0.00022	0.00025	99.38%	77.20	92.86%	0.07159	288.93	85.46%	14.89
3	0.00021	0.00016	0.00018	99.36%	76.22	92.95%	0.07066	385.51	79.34%	15.00
4	0.00019	0.00013	0.00016	99.34%	75.24	93.04%	0.06978	443.07	73.74%	15.10
5	0.00016	0.00012	0.00014	99.32%	74.25	93.12%	0.06893	487.23	68.59%	15.20
6	0.00014	0.00011	0.00013	99.31%	73.26	93.20%	0.06808	542.16	63.86%	15.29
7	0.00013	0.00010	0.00011	99.30%	72.27	93.29%	0.06724	596.85	59.52%	15.37
8	0.00011	0.00009	0.00010	99.29%	71.28	93.37%	0.06642	656.05	55.51%	15.44
9	0.00010	0.00008	0.00009	99.28%	70.28	93.45%	0.06560	712.31	51.83%	15.50
10	0.00009	0.00008	0.00009	99.27%	69.29	93.53%	0.06481	732.43	48.43%	15.56
11	0.00010	0.00009	0.00010	99.26%	68.30	93.61%	0.06403	668.90	45.29%	15.60
12	0.00014	0.00010	0.00012	99.25%	67.30	93.68%	0.06328	527.04	42.39%	15.63
13	0.00021	0.00013	0.00017	99.24%	66.31	93.76%	0.06255	378.78	39.71%	15.65
14	0.00030	0.00016	0.00023	99.22%	65.32	93.84%	0.06186	272.50	37.22%	15.66
15	0.00039	0.00019	0.00029	99.20%	64.34	93.91%	0.06117	208.47	34.92%	15.66
16	0.00050	0.00023	0.00036	99.17%	63.36	93.98%	0.06050	166.87	32.78%	15.65
17	0.00062	0.00027	0.00044	99.13%	62.38	94.06%	0.05984	135.54	30.80%	15.63
18	0.00075	0.00031	0.00053	99.09%	61.41	94.13%	0.05920	112.08	28.96%	15.59
19	0.00089	0.00034	0.00062	99.04%	60.44	94.20%	0.05858	95.10	27.24%	15.54
20	0.00103	0.00038	0.00070	98.97%	59.47	94.27%	0.05796	82.25	25.65%	15.48
21	0.00116	0.00041	0.00079	98.90%	58.52	94.34%	0.05734	73.02	24.16%	15.40
22	0.00125	0.00044	0.00085	98.83%	57.56	94.41%	0.05671	66.93	22.78%	15.30
23	0.00131	0.00047	0.00089	98.74%	56.61	94.48%	0.05607	63.17	21.48%	15.19
24	0.00133	0.00050	0.00091	98.66%	55.66	94.54%	0.05543	60.70	20.28%	15.07
25	0.00135	0.00052	0.00093	98.57%	54.71	94.61%	0.05479	58.61	19.16%	14.92
26	0.00137	0.00055	0.00096	98.47%	53.76	94.67%	0.05416	56.41	18.11%	14.76
27	0.00139	0.00058	0.00099	98.38%	52.81	94.74%	0.05354	54.23	17.13%	14.57
28	0.00142	0.00061	0.00102	98.28%	51.86	94.80%	0.05293	51.96	16.21%	14.37
29	0.00146	0.00064	0.00105	98.18%	50.92	94.87%	0.05234	49.68	15.35%	14.15
30	0.00150	0.00068	0.00109	98.08%	49.97	94.93%	0.05175	47.45	14.55%	13.90
40	0.00214	0.00135	0.00174	96.79%	40.56		0.06415	36.80	8.10%	11.23
50	0.00503	0.00321	0.00412	94.34%	31.47		0.08456	20.51	3.82%	8.63
60	0.01137	0.00672	0.00904	88.70%	23.11		0.11857	13.11	1.35%	6.25
70	0.02270	0.01514	0.01892	78.15%	15.50		0.18228	9.64	0.29%	4.07
80	0.05750	0.04213	0.04981	57.65%	9.04		0.32994	6.62	0.02%	2.20
90	0.16233	0.12810	0.14521	23.77%	4.49		0.70916	4.88	0.00%	0.87
100	1.00000	1.00000	1.00000	1.80%	2.22		2.14286	2.14	0.00%	1.03

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.96%				
95.71%	0.04844	8.32	100.00%	23.20
95.75%	0.04281	115.86	95.16%	23.35
95.80%	0.04229	170.67	91.08%	23.37
95.84%	0.04182	228.15	87.23%	23.38
95.88%	0.04139	262.81	83.58%	23.38
95.92%	0.04098	289.69	80.12%	23.37
95.95%	0.04057	323.11	76.84%	23.35
95.99%	0.04017	356.55	73.72%	23.31
96.03%	0.03977	392.85	70.76%	23.27
96.07%	0.03938	427.58	67.95%	23.21
96.11%	0.03900	440.74	65.27%	23.14
96.15%	0.03863	403.55	62.73%	23.06
96.18%	0.03828	318.85	60.30%	22.97
96.22%	0.03796	229.84	57.99%	22.86
96.26%	0.03765	165.87	55.79%	22.74
96.29%	0.03735	127.30	53.69%	22.61
96.33%	0.03706	102.23	51.69%	22.47
96.36%	0.03679	83.32	49.77%	22.32
96.40%	0.03652	69.13	47.94%	22.15
96.43%	0.03626	58.87	46.19%	21.97
96.47%	0.03600	51.09	44.51%	21.78
96.50%	0.03574	45.51	42.91%	21.57
96.54%	0.03546	41.85	41.38%	21.35
96.57%	0.03516	39.62	39.91%	21.12
96.60%	0.03486	38.17	38.51%	20.87
96.64%	0.03455	36.96	37.17%	20.61
96.67%	0.03425	35.68	35.88%	20.33
96.70%	0.03396	34.39	34.65%	20.03
96.73%	0.03367	33.05	33.48%	19.72
96.76%	0.03339	31.70	32.35%	19.39
96.79%	0.03311	30.36	31.27%	19.04
	0.04119	23.63	21.57%	15.41
	0.05497	13.33	13.37%	11.89
	0.07827	8.65	6.86%	8.65
	0.12218	6.46	2.52%	5.69
	0.22688	4.55	0.43%	3.17
	0.50169	3.45	0.01%	1.37
	1.72240	1.72	0.00%	1.29

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
6.05%				
98.37%	0.02207	3.79	100.00%	55.62
98.46%	0.01572	42.53	97.79%	55.86
98.56%	0.01467	59.21	96.26%	55.74
98.64%	0.01373	74.92	94.84%	55.57
98.73%	0.01289	81.83	93.54%	55.33
98.80%	0.01210	85.55	92.34%	55.05
98.88%	0.01136	90.50	91.22%	54.72
98.94%	0.01067	94.72	90.18%	54.34
99.01%	0.01002	98.98	89.22%	53.92
99.07%	0.00941	102.19	88.33%	53.46
99.12%	0.00884	99.96	87.49%	52.97
99.18%	0.00832	86.94	86.72%	52.43
99.23%	0.00785	65.37	86.00%	51.87
99.27%	0.00743	44.96	85.32%	51.28
99.32%	0.00705	31.05	84.69%	50.66
99.36%	0.00670	22.84	84.09%	50.01
99.40%	0.00638	17.60	83.53%	49.35
99.43%	0.00610	13.81	83.00%	48.66
99.47%	0.00584	11.06	82.49%	47.95
99.50%	0.00561	9.10	82.01%	47.23
99.53%	0.00539	7.65	81.55%	46.50
	0.00555	7.07	81.11%	45.75
	0.00569	6.72	80.66%	45.00
	0.00581	6.55	80.20%	44.25
	0.00592	6.49	79.73%	43.51
	0.00603	6.45	79.26%	42.77
	0.00615	6.40	78.78%	42.02
	0.00627	6.35	78.30%	41.28
	0.00640	6.28	77.81%	40.54
	0.00653	6.20	77.31%	39.79
	0.00667	6.12	76.81%	39.05
	0.00862	4.94	71.28%	31.68
	0.01298	3.15	64.29%	24.55
	0.02111	2.33	54.55%	18.00
	0.03691	1.95	41.49%	12.02
	0.08067	1.62	24.10%	6.94
	0.20734	1.43	6.14%	3.36
	1.12589	1.13	0.13%	1.97

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%	0.282
4	15	58%	59%	0.085
4	20	48%	47%	0.419
4	25	38%	37%	0.183
4	30	29%	30%	0.245
Total				1.2141

Lifts head but not chest, Fed orally by others

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	85%	83%	0.563
4	15	73%	71%	0.685
4	20	61%	60%	0.064
4	25	49%	51%	1.187
4	30	44%	44%	0.015
Total				2.5142

Lifts head but not chest, Feeds self orally

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	93%	0.367
4	15	89%	88%	0.171
4	20	84%	83%	0.240
4	25	74%	78%	1.704
4	30	74%	73%	0.204
Total				2.6871

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United States Life Tables, 2014)					Adjusted life table				
	Mortality	Mortality	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	0.64%				
1	0.00039	0.00034	0.00037	99.42%	78.18	95.01%	0.05547	9.53	100.00%	19.57
2	0.00028	0.00022	0.00025	99.38%	77.20	95.04%	0.04997	135.23	94.45%	19.69
3	0.00021	0.00016	0.00018	99.36%	76.22	95.07%	0.04954	199.94	89.73%	19.70
4	0.00019	0.00013	0.00016	99.34%	75.24	95.10%	0.04916	268.21	85.29%	19.70
5	0.00016	0.00012	0.00014	99.32%	74.25	95.13%	0.04882	309.99	81.10%	19.69
6	0.00014	0.00011	0.00013	99.31%	73.26	95.16%	0.04850	342.83	77.14%	19.67
7	0.00013	0.00010	0.00011	99.30%	72.27	95.19%	0.04817	383.65	73.39%	19.65
8	0.00011	0.00009	0.00010	99.29%	71.28	95.23%	0.04785	424.75	69.86%	19.62
9	0.00010	0.00008	0.00009	99.28%	70.28	95.26%	0.04754	469.55	66.52%	19.58
10	0.00009	0.00008	0.00009	99.27%	69.29	95.29%	0.04722	512.75	63.35%	19.53
11	0.00010	0.00009	0.00010	99.26%	68.30	95.32%	0.04692	530.27	60.36%	19.48
12	0.00014	0.00010	0.00012	99.25%	67.30	95.35%	0.04663	487.09	57.53%	19.41
13	0.00021	0.00013	0.00017	99.24%	66.31	95.38%	0.04635	386.07	54.85%	19.34
14	0.00030	0.00016	0.00023	99.22%	65.32	95.41%	0.04610	279.14	52.31%	19.25
15	0.00039	0.00019	0.00029	99.20%	64.34	95.44%	0.04586	202.05	49.89%	19.16
16	0.00050	0.00023	0.00036	99.17%	63.36	95.46%	0.04564	155.52	47.61%	19.06
17	0.00062	0.00027	0.00044	99.13%	62.38	95.49%	0.04541	125.26	45.43%	18.94
18	0.00075	0.00031	0.00053	99.09%	61.41	95.52%	0.04520	102.37	43.37%	18.82
19	0.00089	0.00034	0.00062	99.04%	60.44	95.55%	0.04499	85.18	41.41%	18.69
20	0.00103	0.00038	0.00070	98.97%	59.47	95.58%	0.04479	72.73	39.55%	18.55
21	0.00116	0.00041	0.00079	98.90%	58.52	95.61%	0.04460	63.29	37.78%	18.39
22	0.00125	0.00044	0.00085	98.83%	57.56	95.64%	0.04439	56.53	36.09%	18.23
23	0.00131	0.00047	0.00089	98.74%	56.61	95.66%	0.04417	52.13	34.49%	18.05
24	0.00133	0.00050	0.00091	98.66%	55.66	95.69%	0.04393	49.50	32.97%	17.86
25	0.00135	0.00052	0.00093	98.57%	54.71	95.72%	0.04368	47.84	31.52%	17.66
26	0.00137	0.00055	0.00096	98.47%	53.76	95.75%	0.04343	46.46	30.14%	17.44
27	0.00139	0.00058	0.00099	98.38%	52.81	95.77%	0.04318	44.98	28.83%	17.21
28	0.00142	0.00061	0.00102	98.28%	51.86	95.80%	0.04294	43.49	27.59%	16.97
29	0.00146	0.00064	0.00105	98.18%	50.92	95.83%	0.04270	41.92	26.40%	16.70
30	0.00150	0.00068	0.00109	98.08%	49.97	95.85%	0.04247	40.31	25.27%	16.43
40	0.00214	0.00135	0.00174	96.79%	40.56	95.88%	0.04224	38.73	24.20%	16.13
50	0.00503	0.00321	0.00412	94.34%	31.47		0.05243	30.08	15.04%	13.04
60	0.01137	0.00672	0.00904	88.70%	23.11		0.06945	16.85	8.16%	10.05
70	0.02270	0.01514	0.01892	78.15%	15.50		0.09800	10.84	3.50%	7.29
80	0.05750	0.04213	0.04981	57.65%	9.04		0.15160	8.01	0.99%	4.78
90	0.16233	0.12810	0.14521	23.77%	4.49		0.27734	5.57	0.11%	2.62
100	1.00000	1.00000	1.00000	1.80%	2.22		0.60326	4.15	0.00%	1.09

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
96.92%	0.03646	6.27	100.00%	26.77
96.92%	0.03118	84.38	96.35%	26.76
96.92%	0.03106	125.38	93.35%	26.60
96.92%	0.03100	169.13	90.45%	26.44
96.92%	0.03098	196.68	87.65%	26.27
96.92%	0.03096	218.86	84.93%	26.10
96.92%	0.03095	246.45	82.30%	25.91
96.92%	0.03093	274.57	79.75%	25.73
96.92%	0.03092	305.44	77.29%	25.53
96.92%	0.03091	335.65	74.90%	25.33
96.92%	0.03091	349.34	72.58%	25.12
96.92%	0.03092	322.98	70.34%	24.91
96.92%	0.03094	257.71	68.16%	24.68
96.92%	0.03098	187.62	66.05%	24.46
96.92%	0.03104	136.76	64.01%	24.22
96.92%	0.03111	106.02	62.02%	23.98
96.92%	0.03118	85.99	60.09%	23.74
96.92%	0.03125	70.78	58.22%	23.48
96.92%	0.03134	59.32	56.40%	23.23
96.92%	0.03142	51.01	54.63%	22.96
96.92%	0.03151	44.71	52.91%	22.69
96.92%	0.03159	40.22	51.25%	22.41
96.92%	0.03165	37.35	49.63%	22.13
96.92%	0.03168	35.70	48.06%	21.83
96.92%	0.03171	34.73	46.54%	21.53
96.92%	0.03173	33.94	45.06%	21.22
96.92%	0.03175	33.08	43.63%	20.90
96.92%	0.03178	32.19	42.24%	20.57
96.92%	0.03181	31.23	40.90%	20.23
96.92%	0.03184	30.23	39.60%	19.88
96.92%	0.03188	29.23	38.34%	19.51
	0.03967	22.76	26.82%	15.79
	0.05301	12.86	16.92%	12.19
	0.07561	8.36	8.90%	8.87
	0.11821	6.25	3.39%	5.84
	0.22007	4.42	0.62%	3.26
	0.48798	3.36	0.01%	1.41
	1.69462	1.69	0.00%	1.31

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
98.83%	0.01742	2.99	100.00%	46.79
98.83%	0.01203	32.56	98.26%	46.62
98.83%	0.01191	48.07	97.08%	46.18
98.83%	0.01185	64.63	95.92%	45.73
98.83%	0.01182	75.06	94.78%	45.27
98.83%	0.01181	83.45	93.66%	44.81
98.83%	0.01179	93.89	92.56%	44.33
98.83%	0.01178	104.54	91.47%	43.86
98.83%	0.01177	116.22	90.39%	43.37
98.83%	0.01176	127.65	89.33%	42.88
98.83%	0.01175	132.83	88.28%	42.39
98.83%	0.01176	122.86	87.24%	41.89
98.83%	0.01178	98.15	86.21%	41.38
98.83%	0.01183	71.63	85.20%	40.87
98.83%	0.01189	52.38	84.19%	40.35
98.83%	0.01196	40.74	83.19%	39.83
98.83%	0.01202	33.17	82.19%	39.31
98.83%	0.01210	27.41	81.20%	38.78
98.83%	0.01219	23.07	80.22%	38.25
98.83%	0.01227	19.93	79.24%	37.71
98.83%	0.01236	17.54	78.27%	37.18
98.83%	0.01244	15.84	77.30%	36.63
98.83%	0.01250	14.76	76.34%	36.09
98.83%	0.01254	14.13	75.39%	35.54
98.83%	0.01257	13.76	74.44%	34.99
98.83%	0.01259	13.47	73.51%	34.42
98.83%	0.01261	13.14	72.58%	33.86
98.83%	0.01264	12.80	71.67%	33.28
98.83%	0.01267	12.44	70.76%	32.70
98.83%	0.01271	12.06	69.86%	32.12
98.83%	0.01274	11.69	68.97%	31.52
	0.01610	9.23	59.84%	25.56
	0.02262	5.49	49.58%	19.79
	0.03424	3.79	37.57%	14.48
	0.05650	2.99	24.29%	9.63
	0.11425	2.29	10.80%	5.51
	0.27494	1.89	1.58%	2.59
	1.26289	1.26	0.01%	1.75

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%	1.161
4	15	65%	66%	0.303
4	20	59%	55%	2.658
4	25	48%	46%	1.266
4	30	35%	38%	1.991
Total				7.3794

Lifts head and chest, Fed orally by others

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	90%	87%	0.738
4	15	81%	78%	1.001
4	20	73%	70%	1.441
4	25	62%	62%	0.003
4	30	52%	55%	2.118
Total				5.3017

Lifts head and chest, Feeds self orally

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	96%	95%	0.097
4	15	93%	91%	0.398
4	20	91%	87%	1.631
4	25	85%	83%	0.368
4	30	75%	79%	2.612
Total				5.1061

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United States Life Tables, 2014)					Adjusted life table				
	Mortality	Mortality	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	0.00%				
1	0.00039	0.00034	0.00037	99.42%	78.18	96.36%	0.04202	7.22	100.00%	23.60
2	0.00028	0.00022	0.00025	99.38%	77.20	96.36%	0.03665	147.92	92.28%	23.49
3	0.00021	0.00016	0.00018	99.36%	76.22	96.36%	0.03659	199.61	88.89%	23.37
4	0.00019	0.00013	0.00016	99.34%	75.24	96.36%	0.03656	232.14	85.64%	23.24
5	0.00016	0.00012	0.00014	99.32%	74.25	96.36%	0.03655	258.35	82.51%	23.10
6	0.00014	0.00011	0.00013	99.31%	73.26	96.36%	0.03653	290.94	79.49%	22.96
7	0.00013	0.00010	0.00011	99.30%	72.27	96.36%	0.03652	324.16	76.59%	22.81
8	0.00011	0.00009	0.00010	99.29%	71.28	96.36%	0.03651	360.62	73.79%	22.66
9	0.00010	0.00008	0.00009	99.28%	70.28	96.36%	0.03650	396.30	71.10%	22.50
10	0.00009	0.00008	0.00009	99.27%	69.29	96.36%	0.03650	412.47	68.50%	22.33
11	0.00010	0.00009	0.00010	99.26%	68.30	96.36%	0.03650	381.34	66.00%	22.16
12	0.00014	0.00010	0.00012	99.25%	67.30	96.36%	0.03653	304.23	63.60%	21.98
13	0.00021	0.00013	0.00017	99.24%	66.31	96.36%	0.03657	221.44	61.27%	21.79
14	0.00030	0.00016	0.00023	99.22%	65.32	96.36%	0.03663	161.37	59.03%	21.60
15	0.00039	0.00019	0.00029	99.20%	64.34	96.36%	0.03669	125.05	56.87%	21.40
16	0.00050	0.00023	0.00036	99.17%	63.36	96.36%	0.03676	101.40	54.78%	21.20
17	0.00062	0.00027	0.00044	99.13%	62.38	96.36%	0.03684	83.43	52.77%	20.99
18	0.00075	0.00031	0.00053	99.09%	61.41	96.36%	0.03692	69.89	50.82%	20.77
19	0.00089	0.00034	0.00062	99.04%	60.44	96.36%	0.03700	60.08	48.95%	20.55
20	0.00103	0.00038	0.00070	98.97%	59.47	96.36%	0.03709	52.64	47.14%	20.32
21	0.00116	0.00041	0.00079	98.90%	58.52	96.36%	0.03717	47.33	45.39%	20.08
22	0.00125	0.00044	0.00085	98.83%	57.56	96.36%	0.03723	43.94	43.70%	19.84
23	0.00131	0.00047	0.00089	98.74%	56.61	96.36%	0.03727	41.98	42.08%	19.58
24	0.00133	0.00050	0.00091	98.66%	55.66	96.36%	0.03729	40.84	40.51%	19.32
25	0.00135	0.00052	0.00093	98.57%	54.71	96.36%	0.03731	39.92	39.00%	19.05
26	0.00137	0.00055	0.00096	98.47%	53.76	96.36%	0.03734	38.89	37.54%	18.77
27	0.00139	0.00058	0.00099	98.38%	52.81	96.36%	0.03736	37.84	36.14%	18.48
28	0.00142	0.00061	0.00102	98.28%	51.86	96.36%	0.03739	36.71	34.79%	18.18
29	0.00146	0.00064	0.00105	98.18%	50.92	96.36%	0.03743	35.53	33.49%	17.86
30	0.00150	0.00068	0.00109	98.08%	49.97	96.36%	0.03746	34.35	32.24%	17.54
40	0.00214	0.00135	0.00174	96.79%	40.56		0.04655	26.70	21.16%	14.19
50	0.00503	0.00321	0.00412	94.34%	31.47		0.06187	15.01	12.31%	10.94
60	0.01137	0.00672	0.00904	88.70%	23.11		0.08768	9.69	5.81%	7.95
70	0.02270	0.01514	0.01892	78.15%	15.50		0.13620	7.20	1.88%	5.22
80	0.05750	0.04213	0.04981	57.65%	9.04		0.25093	5.04	0.26%	2.89
90	0.16233	0.12810	0.14521	23.77%	4.49		0.55010	3.79	0.00%	1.22
100	1.00000	1.00000	1.00000	1.80%	2.22		1.82051	1.82	0.00%	1.22

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
97.80%	0.02273	4.76	100.00%	33.58
97.80%	0.02240	60.61	97.23%	33.53
97.80%	0.02228	89.91	95.05%	33.28
97.80%	0.02221	121.19	92.93%	33.03
97.80%	0.02219	140.88	90.87%	32.77
97.80%	0.02217	156.74	88.85%	32.50
97.80%	0.02216	176.46	86.88%	32.23
97.80%	0.02214	196.56	84.96%	31.94
97.80%	0.02213	218.63	83.08%	31.66
97.80%	0.02212	240.22	81.24%	31.36
97.80%	0.02212	250.01	79.44%	31.06
97.80%	0.02213	231.17	77.68%	30.75
97.80%	0.02215	184.50	75.96%	30.44
97.80%	0.02220	134.40	74.28%	30.11
97.80%	0.02226	98.05	72.63%	29.79
97.80%	0.02232	76.07	71.02%	29.45
97.80%	0.02239	61.76	69.43%	29.11
97.80%	0.02247	50.88	67.88%	28.77
97.80%	0.02255	42.69	66.35%	28.42
97.80%	0.02264	36.75	64.85%	28.06
97.80%	0.02272	32.25	63.39%	27.70
97.80%	0.02280	29.04	61.95%	27.33
97.80%	0.02286	26.98	60.53%	26.96
97.80%	0.02290	25.80	59.15%	26.58
97.80%	0.02293	25.11	57.80%	26.19
97.80%	0.02295	24.55	56.47%	25.79
97.80%	0.02297	23.93	55.17%	25.39
97.80%	0.02300	23.30	53.91%	24.97
97.80%	0.02303	22.61	52.67%	24.55
97.80%	0.02306	21.90	51.45%	24.12
97.80%	0.02310	21.18	50.27%	23.67
	0.02886	16.55	38.84%	19.18
	0.03907	9.48	27.79%	14.82
	0.05663	6.26	17.31%	10.82
	0.08990	4.75	8.43%	7.16
	0.17152	3.44	2.34%	4.03
	0.39024	2.69	0.12%	1.81
	1.49654	1.50	0.00%	1.48

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.17%	0.01410	2.42	100.00%	53.18
99.17%	0.00870	23.54	98.59%	52.93
99.17%	0.00858	34.63	97.73%	52.39
99.17%	0.00852	46.46	96.89%	51.84
99.17%	0.00849	53.90	96.07%	51.28
99.17%	0.00847	59.90	95.25%	50.72
99.17%	0.00846	67.36	94.45%	50.15
99.17%	0.00845	74.96	93.65%	49.57
99.17%	0.00843	83.31	92.86%	48.99
99.17%	0.00842	91.48	92.07%	48.40
99.17%	0.00842	95.18	91.30%	47.81
99.17%	0.00843	88.05	90.53%	47.21
99.17%	0.00845	70.40	89.77%	46.61
99.17%	0.00850	51.45	89.01%	46.00
99.17%	0.00856	37.70	88.25%	45.39
99.17%	0.00862	29.39	87.49%	44.78
99.17%	0.00869	23.98	86.74%	44.16
99.17%	0.00877	19.87	85.99%	43.55
99.17%	0.00886	16.77	85.23%	42.93
99.17%	0.00894	14.52	84.48%	42.31
99.17%	0.00903	12.82	83.72%	41.68
99.17%	0.00911	11.60	82.97%	41.06
99.17%	0.00917	10.83	82.21%	40.43
99.17%	0.00921	10.38	81.46%	39.80
99.17%	0.00924	10.12	80.70%	39.17
99.17%	0.00926	9.91	79.96%	38.53
99.17%	0.00929	9.67	79.22%	37.88
99.17%	0.00931	9.43	78.48%	37.23
99.17%	0.00934	9.17	77.75%	36.58
99.17%	0.00938	8.90	77.03%	35.92
99.17%	0.00941	8.63	76.30%	35.25
	0.01200	6.88	68.69%	28.59
	0.01734	4.21	59.63%	22.15
	0.02704	2.99	48.08%	16.22
	0.04576	2.42	34.00%	10.81
	0.09584	1.92	17.51%	6.22
	0.23788	1.64	3.49%	2.97
	1.18780	1.19	0.04%	1.86

Target and fitted criteria are as follows:

Full rolling, Tube fed

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	87%	87%	0.001
4	15	81%	78%	1.413
4	20	73%	69%	2.124
4	25	60%	61%	0.297
4	30	52%	54%	1.133
Total				4.9677

Full rolling, Fed orally by others

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.035
4	15	91%	90%	0.109
4	20	86%	86%	0.013
4	25	82%	81%	0.048
4	30	76%	77%	0.201
Total				0.4063

Full rolling, Feeds self orally

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	98%	98%	0.001
4	15	97%	97%	0.020
4	20	95%	95%	0.002
4	25	93%	93%	0.000
4	30	91%	91%	0.004
Total				0.0274

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United States Life Tables, 2014)					Adjusted life table				
	Mortality	Mortality	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	0.00%	0.02833	4.87	100.00%	33.01
1	0.00039	0.00034	0.00037	99.42%	78.18	97.74%	0.02301	62.26	97.17%	32.96
2	0.00028	0.00022	0.00025	99.38%	77.20	97.74%	0.02289	92.38	94.93%	32.72
3	0.00021	0.00016	0.00018	99.36%	76.22	97.74%	0.02282	124.52	92.76%	32.48
4	0.00019	0.00013	0.00016	99.34%	75.24	97.74%	0.02280	144.76	90.64%	32.23
5	0.00016	0.00012	0.00014	99.32%	74.25	97.74%	0.02278	161.06	88.57%	31.97
6	0.00014	0.00011	0.00013	99.31%	73.26	97.74%	0.02277	181.33	86.56%	31.70
7	0.00013	0.00010	0.00011	99.30%	72.27	97.74%	0.02276	201.98	84.59%	31.43
8	0.00011	0.00009	0.00010	99.29%	71.28	97.74%	0.02274	224.66	82.66%	31.15
9	0.00010	0.00008	0.00009	99.28%	70.28	97.74%	0.02274	246.86	80.78%	30.86
10	0.00009	0.00008	0.00009	99.27%	69.29	97.74%	0.02273	256.91	78.94%	30.57
11	0.00010	0.00009	0.00010	99.26%	68.30	97.74%	0.02274	237.55	77.15%	30.27
12	0.00014	0.00010	0.00012	99.25%	67.30	97.74%	0.02276	189.59	75.40%	29.96
13	0.00021	0.00013	0.00017	99.24%	66.31	97.74%	0.02281	138.10	73.68%	29.64
14	0.00030	0.00016	0.00023	99.22%	65.32	97.74%	0.02287	100.74	72.00%	29.32
15	0.00039	0.00019	0.00029	99.20%	64.34	97.74%	0.02293	78.15	70.35%	29.00
16	0.00050	0.00023	0.00036	99.17%	63.36	97.74%	0.02300	63.44	68.74%	28.67
17	0.00062	0.00027	0.00044	99.13%	62.38	97.74%	0.02308	52.27	67.16%	28.33
18	0.00075	0.00031	0.00053	99.09%	61.41	97.74%	0.02316	43.85	65.61%	27.99
19	0.00089	0.00034	0.00062	99.04%	60.44	97.74%	0.02325	37.74	64.09%	27.64
20	0.00103	0.00038	0.00070	98.97%	59.47	97.74%	0.02333	33.12	62.60%	27.29
21	0.00116	0.00041	0.00079	98.90%	58.52	97.74%	0.02341	29.82	61.14%	26.93
22	0.00125	0.00044	0.00085	98.83%	57.56	97.74%	0.02347	27.70	59.71%	26.56
23	0.00131	0.00047	0.00089	98.74%	56.61	97.74%	0.02351	26.49	58.31%	26.19
24	0.00133	0.00050	0.00091	98.66%	55.66	97.74%	0.02354	25.78	56.93%	25.81
25	0.00135	0.00052	0.00093	98.57%	54.71	97.74%	0.02356	25.20	55.59%	25.42
26	0.00137	0.00055	0.00096	98.47%	53.76	97.74%	0.02358	24.57	54.28%	25.02
27	0.00139	0.00058	0.00099	98.38%	52.81	97.74%	0.02361	23.91	53.00%	24.61
28	0.00142	0.00061	0.00102	98.28%	51.86	97.74%	0.02364	23.21	51.75%	24.19
29	0.00146	0.00064	0.00105	98.18%	50.92	97.74%	0.02367	22.47	50.53%	23.76
30	0.00150	0.00068	0.00109	98.08%	49.97	97.74%	0.02371	21.74	49.33%	23.33
40	0.00214	0.00135	0.00174	96.79%	40.56		0.02961	16.98	37.86%	18.90
50	0.00503	0.00321	0.00412	94.34%	31.47		0.04004	9.71	26.85%	14.60
60	0.01137	0.00672	0.00904	88.70%	23.11		0.05795	6.41	16.53%	10.66
70	0.02270	0.01514	0.01892	78.15%	15.50		0.09186	4.86	7.92%	7.05
80	0.05750	0.04213	0.04981	57.65%	9.04		0.17490	3.51	2.13%	3.97
90	0.16233	0.12810	0.14521	23.77%	4.49		0.39703	2.73	0.10%	1.78
100	1.00000	1.00000	1.00000	1.80%	2.22		1.51031	1.51	0.00%	1.47

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%	0.01516	2.61	100.00%	50.98
99.06%	0.00976	26.42	98.48%	50.75
99.06%	0.00964	38.92	97.52%	50.25
99.06%	0.00958	52.27	96.58%	49.73
99.06%	0.00955	60.66	95.66%	49.21
99.06%	0.00954	67.43	94.74%	48.68
99.06%	0.00952	75.84	93.84%	48.14
99.06%	0.00951	84.42	92.94%	47.60
99.06%	0.00950	93.83	92.06%	47.05
99.06%	0.00949	103.04	91.19%	46.50
99.06%	0.00949	107.21	90.32%	45.94
99.06%	0.00949	99.18	89.46%	45.38
99.06%	0.00952	79.27	88.61%	44.81
99.06%	0.00956	57.90	87.77%	44.23
99.06%	0.00962	42.40	86.93%	43.65
99.06%	0.00969	33.02	86.10%	43.07
99.06%	0.00976	26.92	85.26%	42.49
99.06%	0.00984	22.28	84.43%	41.90
99.06%	0.00992	18.78	83.60%	41.32
99.06%	0.01001	16.25	82.77%	40.72
99.06%	0.01010	14.33	81.94%	40.13
99.06%	0.01018	12.96	81.11%	39.54
99.06%	0.01024	12.08	80.29%	38.94
99.06%	0.01028	11.58	79.47%	38.33
99.06%	0.01030	11.28	78.65%	37.73
99.06%	0.01032	11.05	77.84%	37.11
99.06%	0.01035	10.78	77.04%	36.50
99.06%	0.01038	10.51	76.24%	35.87
99.06%	0.01041	10.22	75.45%	35.24
99.06%	0.01044	9.91	74.66%	34.61
99.06%	0.01048	9.61	73.88%	33.97
	0.01331	7.63	65.73%	27.55
	0.01903	4.62	56.22%	21.34
	0.02934	3.24	44.44%	15.62
	0.04919	2.60	30.54%	10.41
	0.10173	2.04	15.01%	5.97
	0.24973	1.72	2.71%	2.84
	1.21180	1.21	0.02%	1.83

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%	0.00885	1.52	100.00%	67.19
99.69%	0.00342	9.25	99.11%	66.78
99.69%	0.00330	13.31	98.78%	66.01
99.69%	0.00323	17.64	98.45%	65.23
99.69%	0.00321	20.37	98.13%	64.44
99.69%	0.00319	22.57	97.82%	63.64
99.69%	0.00318	25.30	97.50%	62.84
99.69%	0.00316	28.08	97.19%	62.04
99.69%	0.00315	31.14	96.89%	61.24
99.69%	0.00314	34.13	96.58%	60.43
99.69%	0.00314	35.48	96.28%	59.62
99.69%	0.00315	32.87	95.98%	58.81
99.69%	0.00317	26.41	95.67%	57.99
99.69%	0.00322	19.47	95.37%	57.17
99.69%	0.00328	14.44	95.06%	56.36
99.69%	0.00334	11.40	94.75%	55.54
99.69%	0.00341	9.41	94.44%	54.72
99.69%	0.00349	7.91	94.11%	53.91
99.69%	0.00358	6.77	93.78%	53.10
99.69%	0.00367	5.95	93.45%	52.29
99.69%	0.00375	5.33	93.11%	51.48
99.69%	0.00383	4.88	92.76%	50.67
99.69%	0.00390	4.60	92.40%	49.86
99.69%	0.00394	4.43	92.04%	49.05
99.69%	0.00396	4.34	91.68%	48.25
99.69%	0.00398	4.26	91.32%	47.44
99.69%	0.00401	4.18	90.95%	46.62
99.69%	0.00404	4.09	90.59%	45.81
99.69%	0.00407	3.99	90.22%	44.99
99.69%	0.00410	3.89	89.86%	44.17
99.69%	0.00414	3.79	89.49%	43.35
	0.00550	3.15	85.40%	35.18
	0.00896	2.17	79.79%	27.28
	0.01563	1.73	70.94%	20.01
	0.02875	1.52	57.70%	13.39
	0.06667	1.34	37.38%	7.76
	0.17914	1.23	11.88%	3.80
	1.06876	1.07	0.47%	2.07

Target and fitted criteria are as follows:

Walks unaided, Tube fed

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	95%	94%	0.087
4	15	93%	89%	1.375
4	20	84%	85%	0.088
4	25	79%	80%	0.239
Total				1.7889

Walks unaided, Fed orally by others

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	96%	98%	0.259
4	15	95%	96%	0.037
4	20	95%	94%	0.235
4	25	95%	91%	1.449
4	30	86%	89%	1.085
Total				3.0646

Walks unaided, Feeds self orally

Probabilities of survival				
From	To	Target	Fitted	Deviation
4	10	99%	99%	0.000
4	15	99%	98%	0.071
4	20	98%	97%	0.068
4	25	96%	96%	0.000
4	30	94%	95%	0.071
Total				0.2099

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (United States Life Tables, 2014)					Adjusted life table				
	Mortality	Mortality	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00633	0.00531	0.00582	100.00%	78.72	0.00%				
1	0.00039	0.00034	0.00037	99.42%	78.18	99.00%	0.01574	2.71	100.00%	49.05
2	0.00028	0.00022	0.00025	99.38%	77.20	99.00%	0.01035	28.00	98.43%	48.82
3	0.00021	0.00016	0.00018	99.36%	76.22	99.00%	0.01023	41.28	97.41%	48.33
4	0.00019	0.00013	0.00016	99.34%	75.24	99.00%	0.01016	55.45	96.41%	47.82
5	0.00016	0.00012	0.00014	99.32%	74.25	99.00%	0.01014	64.37	95.43%	47.31
6	0.00014	0.00011	0.00013	99.31%	73.26	99.00%	0.01012	71.55	94.46%	46.79
7	0.00013	0.00010	0.00011	99.30%	72.27	99.00%	0.01011	80.49	93.51%	46.26
8	0.00011	0.00009	0.00010	99.29%	71.28	99.00%	0.01009	89.59	92.56%	45.73
9	0.00010	0.00008	0.00009	99.28%	70.28	99.00%	0.01008	99.59	91.63%	45.19
10	0.00009	0.00008	0.00009	99.28%	70.28	99.00%	0.01007	109.37	90.70%	44.65
11	0.00010	0.00009	0.00010	99.27%	69.29	99.00%	0.01007	113.80	89.79%	44.09
12	0.00014	0.00010	0.00012	99.26%	68.30	99.00%	0.01008	105.27	88.89%	43.54
13	0.00021	0.00013	0.00017	99.25%	67.30	99.00%	0.01010	84.13	87.99%	42.98
14	0.00030	0.00016	0.00023	99.24%	66.31	99.00%	0.01015	61.43	87.10%	42.41
15	0.00039	0.00019	0.00029	99.22%	65.32	99.00%	0.01021	44.96	86.22%	41.84
16	0.00050	0.00023	0.00036	99.20%	64.34	99.00%	0.01027	35.01	85.34%	41.27
17	0.00062	0.00027	0.00044	99.17%	63.36	99.00%	0.01034	28.52	84.46%	40.69
18	0.00075	0.00031	0.00053	99.13%	62.38	99.00%	0.01042	23.60	83.59%	40.11
19	0.00089	0.00034	0.00062	99.09%	61.41	99.00%	0.01050	19.89	82.72%	39.53
20	0.00103	0.00038	0.00070	99.04%	60.44	99.00%	0.01059	17.20	81.85%	38.94
21	0.00116	0.00041	0.00079	98.97%	59.47	99.00%	0.01068	15.16	80.98%	38.35
22	0.00125	0.00044	0.00085	98.90%	58.52	99.00%	0.01076	13.70	80.12%	37.76
23	0.00131	0.00047	0.00089	98.83%	57.56	99.00%	0.01082	12.77	79.25%	37.17
24	0.00133	0.00050	0.00091	98.74%	56.61	99.00%	0.01086	12.24	78.40%	36.57
25	0.00135	0.00052	0.00093	98.66%	55.66	99.00%	0.01089	11.92	77.55%	35.96
26	0.00137	0.00055	0.00096	98.57%	54.71	99.00%	0.01091	11.67	76.70%	35.35
27	0.00139	0.00058	0.00099	98.47%	53.76	99.00%	0.01111	11.57	75.87%	34.74
28	0.00142	0.00061	0.00102	98.38%	52.81	99.00%	0.01132	11.46	75.02%	34.12
29	0.00146	0.00064	0.00105	98.28%	51.86	99.00%	0.01154	11.33	74.17%	33.51
30	0.00150	0.00068	0.00109	98.18%	50.92	99.00%	0.01177	11.17	73.32%	32.89
40	0.00214	0.00135	0.00174	98.08%	49.97	99.00%	0.01201	11.01	72.45%	32.28
50	0.00503	0.00321	0.00412	98.08%	49.97	99.00%	0.01519	8.72	63.38%	26.17
60	0.01137	0.00672	0.00904	96.79%	40.56	99.00%	0.02146	5.21	53.05%	20.27
70	0.02270	0.01514	0.01892	88.70%	23.11	99.00%	0.03265	3.61	40.75%	14.83
80	0.05750	0.04213	0.04981	88.70%	23.11	99.00%	0.05413	2.86	26.88%	9.87
90	0.16233	0.12810	0.14521	78.15%	15.50	99.00%	0.11019	2.21	12.35%	5.65
100	1.00000	1.00000	1.00000	57.65%	9.04	99.00%	0.26676	1.84	1.94%	2.67

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.60%	0.00976	1.68	100.00%	64.33
99.60%	0.00433	11.71	99.02%	63.96
99.60%	0.00421	16.98	98.60%	63.23
99.60%	0.00414	22.60	98.18%	62.50
99.60%	0.00412	26.14	97.77%	61.76
99.60%	0.00410	28.99	97.37%	61.01
99.60%	0.00408	32.53	96.97%	60.26
99.60%	0.00407	36.14	96.58%	59.50
99.60%	0.00406	40.11	96.18%	58.74
99.60%	0.00405	43.99	95.79%	57.98
99.60%	0.00405	45.75	95.40%	57.22
99.60%	0.00406	42.36	95.02%	56.45
99.60%	0.00408	33.98	94.63%	55.67
99.60%	0.00412	24.97	94.25%	54.90
99.60%	0.00419	18.44	93.86%	54.13
99.60%	0.00425	14.49	93.47%	53.35
99.60%	0.00432	11.92	93.07%	52.58
99.60%	0.00440	9.96	92.67%	51.80
99.60%	0.00449	8.49	92.26%	51.03
99.60%	0.00457	7.43	91.84%	50.26
99.60%	0.00466	6.62	91.42%	49.49
99.60%	0.00474	6.04	91.00%	48.72
99.60%	0.00480	5.67	90.57%	47.95
99.60%	0.00484	5.46	90.13%	47.17
99.60%	0.00487	5.33	89.69%	46.40
99.60%	0.00489	5.23	89.26%	45.63
99.60%	0.00492	5.12	88.82%	44.85
99.60%	0.00494	5.01	88.38%	44.07
99.60%	0.00497	4.88	87.95%	43.28
99.60%	0.00501	4.76	87.51%	42.50
99.60%	0.00505	4.63	87.07%	41.71
0.00662	3.80	82.27%	33.84	
0.01040	2.52	75.90%	26.24	
0.01760	1.95	66.36%	19.24	
0.03167	1.67	52.70%	12.86	
0.07169	1.44	32.83%	7.45	
0.18925	1.30	9.65%	3.63	
1.08923	1.09	0.31%	2.03	

Adjusted life table				
Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0.00%				
99.84%	0.00737	1.27	100.00%	72.43
99.84%	0.00192	5.21	99.26%	71.96
99.84%	0.00180	7.27	99.07%	71.10
99.84%	0.00174	9.48	98.89%	70.23
99.84%	0.00171	10.87	98.72%	69.35
99.84%	0.00170	11.99	98.55%	68.47
99.84%	0.00168	13.38	98.39%	67.58
99.84%	0.00167	14.80	98.22%	66.69
99.84%	0.00166	16.36	98.06%	65.81
99.84%	0.00165	17.88	97.89%	64.91
99.84%	0.00164	18.57	97.73%	64.02
99.84%	0.00165	17.24	97.57%	63.12
99.84%	0.00167	13.95	97.41%	62.23
99.84%	0.00172	10.41	97.25%	61.33
99.84%	0.00178	7.85	97.08%	60.44
99.84%	0.00185	6.30	96.91%	59.54
99.84%	0.00192	5.29	96.73%	58.65
99.84%	0.00200	4.52	96.54%	57.76
99.84%	0.00208	3.94	96.35%	56.88
99.84%	0.00217	3.52	96.15%	56.00
99.84%	0.00226	3.21	95.94%	55.12
99.84%	0.00234	2.98	95.73%	54.24
99.84%	0.00240	2.83	95.50%	53.37
99.84%	0.00244	2.75	95.27%	52.49
99.84%	0.00247	2.70	95.04%	51.62
99.84%	0.00249	2.66	94.80%	50.75
99.84%	0.00251	2.62	94.57%	49.87
99.84%	0.00254	2.57	94.33%	49.00
99.84%	0.00257	2.52	94.09%	48.12
99.84%	0.00261	2.47	93.85%	47.24
99.84%	0.00264	2.42	93.61%	46.37
0.00366	2.10	90.81%	37.63	
0.00659	1.60	86.63%	29.19	
0.01240	1.37	79.16%	21.42	
0.02393	1.26	66.97%	14.35	
0.05840	1.17	46.24%	8.34	
0.16250	1.12	16.72%	4.11	
1.03504	1.04	0.91%	2.14	

Target and fitted criteria are as follows:

CP Type (Hagberg) - Tetraplegia

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	76%	69%	6.269
0	20	51%	48%	1.979
0	30	35%	33%	1.145
0	40	19%	23%	7.355
Total				16.7474

CP Type (Hagberg) - Dyskinetic

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	96%	92%	1.610
0	20	86%	85%	0.140
0	30	77%	78%	0.146
0	40	71%	72%	0.063
Total				1.9594

CP Type (SCPE) - Dyskinetic

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	98%	93%	2.295
0	20	88%	87%	0.090
0	30	81%	81%	0.002
0	40	74%	75%	0.283
Total				2.6693

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

Age	Regular life table (Sweden, smoothed, 2013-2016)					Adjusted life table					Adjusted life table					Adjusted life table				
	Male	Female	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00261	0.00215	0.00238	100.00%	81.99	96.40%	0.03827	16.10	100.00%	24.29	99.21%	0.01027	4.32	100.00%	55.40	99.34%	0.00900	3.78	100.00%	58.50
1	0.00019	0.00017	0.00018	99.76%	81.18	96.40%	0.03615	202.23	96.17%	24.23	99.21%	0.00809	45.23	98.97%	54.97	99.34%	0.00681	38.11	99.10%	58.03
2	0.00013	0.00012	0.00012	99.74%	80.20	96.40%	0.03609	297.07	92.70%	24.12	99.21%	0.00803	66.08	98.17%	54.41	99.34%	0.00675	55.59	98.43%	57.42
3	0.00011	0.00010	0.00010	99.73%	79.21	96.40%	0.03608	347.23	89.35%	24.01	99.21%	0.00801	77.10	97.38%	53.85	99.34%	0.00674	64.84	97.76%	56.81
4	0.00010	0.00010	0.00010	99.72%	78.22	96.40%	0.03607	371.91	86.13%	23.89	99.21%	0.00800	82.53	96.60%	53.28	99.34%	0.00673	69.39	97.10%	56.19
5	0.00009	0.00008	0.00008	99.71%	77.22	96.40%	0.03606	425.14	83.02%	23.76	99.21%	0.00799	94.23	95.83%	52.71	99.34%	0.00672	79.21	96.45%	55.57
6	0.00008	0.00008	0.00008	99.70%	76.23	96.40%	0.03605	456.50	80.03%	23.63	99.21%	0.00799	101.12	95.07%	52.13	99.34%	0.00671	84.99	95.80%	54.94
7	0.00007	0.00007	0.00007	99.70%	75.24	96.40%	0.03605	499.51	77.14%	23.50	99.21%	0.00798	110.58	94.31%	51.54	99.34%	0.00671	92.92	95.16%	54.31
8	0.00006	0.00007	0.00007	99.69%	74.24	96.40%	0.03604	542.62	74.36%	23.36	99.21%	0.00797	120.05	93.55%	50.95	99.34%	0.00670	100.87	94.52%	53.67
9	0.00005	0.00007	0.00006	99.68%	73.25	96.40%	0.03604	560.67	71.68%	23.21	99.21%	0.00797	124.02	92.81%	50.36	99.34%	0.00670	104.20	93.89%	53.03
10	0.00006	0.00007	0.00007	99.68%	72.25	96.40%	0.03604	548.28	69.10%	23.06	99.21%	0.00797	121.29	92.07%	49.76	99.34%	0.00670	101.91	93.26%	52.39
11	0.00007	0.00008	0.00007	99.67%	71.26	96.40%	0.03605	481.81	66.61%	22.91	99.21%	0.00798	106.68	91.33%	49.16	99.34%	0.00671	89.66	92.63%	51.74
12	0.00009	0.00009	0.00009	99.66%	70.26	96.40%	0.03606	421.26	64.21%	22.75	99.21%	0.00799	93.38	90.60%	48.55	99.34%	0.00672	78.49	92.01%	51.08
13	0.00011	0.00010	0.00010	99.65%	69.27	96.40%	0.03608	350.43	61.89%	22.58	99.21%	0.00801	77.81	89.88%	47.94	99.34%	0.00674	65.43	91.39%	50.42
14	0.00014	0.00011	0.00012	99.64%	68.27	96.40%	0.03609	297.68	59.66%	22.40	99.21%	0.00803	66.21	89.16%	47.32	99.34%	0.00675	55.71	90.78%	49.76
15	0.00018	0.00012	0.00015	99.63%	67.28	96.40%	0.03612	242.11	57.50%	22.22	99.21%	0.00806	54.00	88.44%	46.70	99.34%	0.00678	45.46	90.16%	49.10
16	0.00023	0.00014	0.00019	99.62%	66.29	96.40%	0.03616	194.94	55.43%	22.04	99.21%	0.00809	43.63	87.73%	46.07	99.34%	0.00682	36.76	89.55%	48.43
17	0.00030	0.00016	0.00023	99.60%	65.31	96.40%	0.03620	157.73	53.42%	21.85	99.21%	0.00814	35.45	87.02%	45.44	99.34%	0.00686	29.90	88.94%	47.76
18	0.00038	0.00017	0.00027	99.57%	64.32	96.40%	0.03624	132.08	51.49%	21.65	99.21%	0.00818	29.81	86.31%	44.81	99.34%	0.00691	25.17	88.33%	47.09
19	0.00045	0.00019	0.00032	99.55%	63.34	96.40%	0.03629	113.08	49.62%	21.44	99.21%	0.00823	25.64	85.61%	44.18	99.34%	0.00695	21.67	87.72%	46.41
20	0.00052	0.00020	0.00036	99.52%	62.36	96.40%	0.03632	100.68	47.82%	21.23	99.21%	0.00827	22.91	84.90%	43.54	99.34%	0.00699	19.38	87.11%	45.73
21	0.00057	0.00022	0.00039	99.48%	61.38	96.40%	0.03636	92.43	46.09%	21.01	99.21%	0.00830	21.10	84.20%	42.90	99.34%	0.00702	17.86	86.50%	45.05
22	0.00062	0.00023	0.00043	99.44%	60.40	96.40%	0.03639	85.31	44.41%	20.79	99.21%	0.00833	19.53	83.50%	42.25	99.34%	0.00706	16.55	85.90%	44.36
23	0.00065	0.00025	0.00045	99.40%	59.43	96.40%	0.03641	80.89	42.79%	20.55	99.21%	0.00835	18.56	82.81%	41.61	99.34%	0.00708	15.73	85.29%	43.68
24	0.00069	0.00026	0.00047	99.35%	58.46	96.40%	0.03643	77.18	41.24%	20.31	99.21%	0.00838	17.74	82.12%	40.95	99.34%	0.00710	15.05	84.68%	42.98
25	0.00072	0.00026	0.00049	99.31%	57.48	96.40%	0.03645	74.13	39.73%	20.06	99.21%	0.00840	17.07	81.43%	40.29	99.34%	0.00712	14.48	84.08%	42.29
26	0.00073	0.00027	0.00050	99.26%	56.51	96.40%	0.03646	72.68	38.29%	19.80	99.21%	0.00841	16.76	80.74%	39.63	99.34%	0.00713	14.22	83.48%	41.59
27	0.00074	0.00028	0.00051	99.21%	55.54	96.40%	0.03647	71.22	36.89%	19.53	99.21%	0.00842	16.44	80.07%	38.96	99.34%	0.00714	13.95	82.89%	40.88
28	0.00074	0.00029	0.00051	99.16%	54.57	96.40%	0.03647	70.87	35.54%	19.25	99.21%	0.00842	16.36	79.39%	38.29	99.34%	0.00715	13.88	82.30%	40.17
29	0.00074	0.00031	0.00052	99.11%	53.60	96.40%	0.03648	69.81	34.25%	18.96	99.21%	0.00843	16.12	78.72%	37.61	99.34%	0.00715	13.69	81.71%	39.46
30	0.00076	0.00032	0.00054	99.05%	52.62	96.40%	0.03650	67.55	33.00%	18.66	99.21%	0.00844	15.63	78.06%	36.92	99.34%	0.00717	13.27	81.12%	38.74
40	0.00097	0.00055	0.00076	98.46%	42.91	96.40%	0.03671	48.47	22.74%	14.96	99.21%	0.00866	11.43	71.67%	29.78	99.34%	0.00739	9.75	75.45%	31.28
50	0.00230	0.00157	0.00193	97.33%	33.34		0.04820	24.93	14.91%	10.26		0.01210	6.26	64.82%	22.37		0.01046	5.41	69.23%	23.63
60	0.00640	0.00435	0.00537	94.29%	24.23		0.09793	18.22	6.57%	7.21		0.02572	4.79	53.11%	16.14		0.02244	4.18	58.28%	17.06
70	0.01736	0.01166	0.01451	86.32%	15.94		0.15522	10.70	1.82%	4.63		0.04544	3.13	37.85%	10.55		0.04046	2.79	43.27%	11.16
80	0.05367	0.03705	0.04536	67.05%	8.87		0.29817	6.57	0.18%	2.40		0.10093	2.22	19.30%	5.77		0.09198	2.03	23.64%	6.12
90	0.17937	0.13966	0.15951	27.06%	4.07		0.71065	4.46	0.00%	0.86		0.28066	1.76	3.08%	2.50		0.26114	1.64	4.41%	2.67
100	0.42540	0.37565	0.40053	1.33%	1.79		1.65340	4.13	0.00%	0.43		0.67592	1.69	0.01%	1.06		0.63155	1.58	0.02%	1.14

Target and fitted criteria are as follows:

CP Type (SCPE) - Bilateral spastic cerebral palsy

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	98%	96%	0.238
0	20	93%	93%	0.005
0	30	90%	90%	0.004
0	40	86%	86%	0.019
Total				0.2662

Severe motor impairment

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	91%	89%	0.396
0	20	80%	80%	0.029
0	30	71%	71%	0.008
0	40	62%	63%	0.123
Total				0.5553

Severe mental retardation

Probabilities of survival				
From	To	Target	Fitted	Deviation
0	10	88%	88%	0.010
0	20	76%	77%	0.170
0	30	69%	68%	0.238
0	40	59%	59%	0.032
Total				0.4508

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (Sweden, smoothed, 2013-2016)					Adjusted life table					Adjusted life table					Adjusted life table				
	Male	Female	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00261	0.00215	0.00238	100.00%	81.99	99.67%	0.00563	2.37	100.00%	68.55	98.88%	0.01350	5.68	100.00%	48.74	98.72%	0.01511	6.36	100.00%	46.31
1	0.00019	0.00017	0.00018	99.76%	81.18	99.67%	0.00344	19.24	99.44%	67.93	98.88%	0.01133	63.37	98.65%	48.40	98.72%	0.01293	72.35	98.49%	46.01
2	0.00013	0.00012	0.00012	99.74%	80.20	99.67%	0.00338	27.83	99.10%	67.17	98.88%	0.01127	92.77	97.53%	47.95	98.73%	0.01286	105.87	97.21%	45.61
3	0.00011	0.00010	0.00010	99.73%	79.21	99.67%	0.00336	32.38	98.76%	66.39	98.88%	0.01125	108.32	96.43%	47.49	98.73%	0.01283	123.53	95.96%	45.20
4	0.00010	0.00010	0.00010	99.72%	78.22	99.67%	0.00336	34.61	98.43%	65.61	98.88%	0.01125	115.97	95.35%	47.02	98.73%	0.01282	132.14	94.73%	44.78
5	0.00009	0.00008	0.00008	99.71%	77.22	99.67%	0.00334	39.44	98.10%	64.83	98.88%	0.01124	132.47	94.28%	46.55	98.73%	0.01279	150.82	93.52%	44.35
6	0.00008	0.00008	0.00008	99.70%	76.23	99.67%	0.00334	42.28	97.77%	64.05	98.88%	0.01123	142.19	93.22%	46.08	98.73%	0.01277	161.75	92.32%	43.92
7	0.00007	0.00007	0.00007	99.70%	75.24	99.67%	0.00333	46.18	97.44%	63.26	98.88%	0.01122	155.52	92.17%	45.59	98.73%	0.01276	176.77	91.14%	43.48
8	0.00006	0.00007	0.00007	99.69%	74.24	99.67%	0.00333	50.08	97.12%	62.47	98.88%	0.01122	168.88	91.13%	45.11	98.73%	0.01274	191.79	89.98%	43.04
9	0.00005	0.00007	0.00006	99.68%	73.25	99.67%	0.00332	51.72	96.79%	61.68	98.88%	0.01121	174.47	90.11%	44.61	98.73%	0.01272	197.96	88.83%	42.59
10	0.00006	0.00007	0.00007	99.68%	72.25	99.67%	0.00333	50.60	96.47%	60.88	98.88%	0.01122	170.63	89.10%	44.11	98.74%	0.01271	193.42	87.70%	42.13
11	0.00007	0.00008	0.00007	99.67%	71.26	99.67%	0.00333	44.57	96.15%	60.09	98.88%	0.01123	150.03	88.10%	43.61	98.74%	0.01271	169.89	86.59%	41.67
12	0.00009	0.00009	0.00009	99.66%	70.26	99.67%	0.00335	39.09	95.83%	59.28	98.88%	0.01124	131.26	87.11%	43.10	98.74%	0.01271	148.49	85.49%	41.20
13	0.00011	0.00010	0.00010	99.65%	69.27	99.67%	0.00336	32.67	95.51%	58.48	98.88%	0.01125	109.31	86.13%	42.58	98.74%	0.01272	123.52	84.40%	40.72
14	0.00014	0.00011	0.00012	99.64%	68.27	99.67%	0.00338	27.89	95.19%	57.68	98.88%	0.01127	92.96	85.17%	42.06	98.74%	0.01272	104.93	83.33%	40.24
15	0.00018	0.00012	0.00015	99.63%	67.28	99.67%	0.00341	22.85	94.87%	56.87	98.88%	0.01130	75.73	84.21%	41.53	98.74%	0.01274	85.38	82.27%	39.75
16	0.00023	0.00014	0.00019	99.62%	66.29	99.67%	0.00345	18.58	94.54%	56.06	98.88%	0.01133	61.11	83.25%	41.00	98.74%	0.01276	68.81	81.22%	39.26
17	0.00030	0.00016	0.00023	99.60%	65.31	99.67%	0.00349	15.20	94.22%	55.26	98.88%	0.01138	49.58	82.31%	40.47	98.74%	0.01279	55.75	80.18%	38.76
18	0.00038	0.00017	0.00027	99.57%	64.32	99.67%	0.00353	12.88	93.89%	54.45	98.88%	0.01142	41.63	81.37%	39.93	98.74%	0.01283	46.75	79.16%	38.26
19	0.00045	0.00019	0.00032	99.55%	63.34	99.67%	0.00358	11.16	93.56%	53.64	98.88%	0.01147	35.74	80.44%	39.38	98.75%	0.01286	40.08	78.14%	37.75
20	0.00052	0.00020	0.00036	99.52%	62.36	99.67%	0.00362	10.03	93.22%	52.83	98.88%	0.01151	31.90	79.52%	38.83	98.75%	0.01289	35.72	77.14%	37.23
21	0.00057	0.00022	0.00039	99.48%	61.38	99.67%	0.00365	9.29	92.89%	52.02	98.88%	0.01154	29.34	78.61%	38.28	98.75%	0.01291	32.82	76.14%	36.71
22	0.00062	0.00023	0.00043	99.44%	60.40	99.67%	0.00369	8.64	92.55%	51.21	98.88%	0.01157	27.13	77.70%	37.72	98.75%	0.01293	30.31	75.16%	36.18
23	0.00065	0.00025	0.00045	99.40%	59.43	99.67%	0.00371	8.24	92.21%	50.40	98.88%	0.01160	25.76	76.80%	37.16	98.75%	0.01294	28.75	74.19%	35.65
24	0.00069	0.00026	0.00047	99.35%	58.46	99.67%	0.00373	7.90	91.86%	49.58	98.88%	0.01162	24.61	75.91%	36.59	98.75%	0.01295	27.44	73.23%	35.11
25	0.00072	0.00026	0.00049	99.31%	57.48	99.67%	0.00375	7.63	91.52%	48.77	98.88%	0.01164	23.67	75.03%	36.01	98.75%	0.01296	26.36	72.28%	34.57
26	0.00073	0.00027	0.00050	99.26%	56.51	99.67%	0.00376	7.50	91.18%	47.95	98.88%	0.01165	23.22	74.15%	35.43	98.75%	0.01296	25.83	71.34%	34.01
27	0.00074	0.00028	0.00051	99.21%	55.54	99.67%	0.00377	7.36	90.83%	47.13	98.88%	0.01166	22.77	73.29%	34.84	98.75%	0.01296	25.30	70.42%	33.45
28	0.00074	0.00029	0.00051	99.16%	54.57	99.67%	0.00377	7.33	90.49%	46.30	98.88%	0.01166	22.66	72.44%	34.25	98.76%	0.01295	25.16	69.51%	32.89
29	0.00074	0.00031	0.00052	99.11%	53.60	99.67%	0.00378	7.24	90.15%	45.48	98.88%	0.01167	22.33	71.59%	33.64	98.76%	0.01294	24.77	68.61%	32.31
30	0.00076	0.00032	0.00054	99.05%	52.62	99.67%	0.00380	7.03	89.81%	44.65	98.88%	0.01169	21.63	70.76%	33.03	98.76%	0.01295	23.97	67.72%	31.73
40	0.00097	0.00055	0.00076	98.46%	42.91	99.67%	0.00402	5.30	86.40%	36.21	98.88%	0.01190	15.71	62.87%	26.56	98.77%	0.01305	17.23	59.44%	25.47
50	0.00230	0.00157	0.00193	97.33%	33.34		0.00613	3.17	82.35%	27.73		0.01627	8.42	54.82%	19.71		0.01775	9.18	51.15%	18.76
60	0.00640	0.00435	0.00537	94.29%	24.23		0.01376	2.56	74.47%	20.09		0.03406	6.34	41.89%	14.18		0.03762	7.00	37.95%	13.47
70	0.01736	0.01166	0.01451	86.32%	15.94		0.02726	1.88	61.54%	13.18		0.05813	4.01	26.90%	9.25		0.06353	4.38	23.30%	8.78
80	0.05367	0.03705	0.04536	67.05%	8.87		0.06827	1.51	40.28%	7.27		0.12372	2.73	11.48%	5.02		0.13343	2.94	9.21%	4.76
90	0.17937	0.13966	0.15951	27.06%	4.07		0.20946	1.31	11.21%	3.25		0.33034	2.07	1.22%	2.13		0.35150	2.20	0.82%	2.00
100	0.42540	0.37565	0.40053	1.33%	1.79		0.51407	1.28	0.18%	1.39		0.78887	1.97	0.00%	0.91		0.83697	2.09	0.00%	0.86

Target and fitted criteria are as follows:

Epilepsy

Probabilities of survival

From	To	Target	Fitted	Deviation
0	10	92%	90%	0.298
0	20	81%	82%	0.273
0	30	76%	76%	0.012
0	40	70%	70%	0.002
Total				0.5851

Survival adjustment parameters that best replicate the above criteria yields the f

Age	Regular life table (Sweden, smoothed, 2013-2016)					Adjusted life table				
	Male	Female	Average	Probability of survival	Life expectancy	Survival adjustment	Mortality	Implied mortality ratio	Probability of survival	Life expectancy
0	0.00261	0.00215	0.00238	100.00%	81.99	0.94%	0.01255	5.28	100.00%	53.99
1	0.00019	0.00017	0.00018	99.76%	81.18	98.99%	0.01028	57.52	98.74%	53.67
2	0.00013	0.00012	0.00012	99.74%	80.20	99.00%	0.01013	83.38	97.73%	53.23
3	0.00011	0.00010	0.00010	99.73%	79.21	99.01%	0.01002	96.43	96.74%	52.77
4	0.00010	0.00010	0.00010	99.72%	78.22	99.02%	0.00992	102.27	95.77%	52.30
5	0.00009	0.00008	0.00008	99.71%	77.22	99.03%	0.00981	115.72	94.82%	51.81
6	0.00008	0.00008	0.00008	99.70%	76.23	99.04%	0.00972	123.04	93.89%	51.32
7	0.00007	0.00007	0.00007	99.70%	75.24	99.05%	0.00962	133.31	92.98%	50.82
8	0.00006	0.00007	0.00007	99.69%	74.24	99.05%	0.00952	143.40	92.08%	50.31
9	0.00005	0.00007	0.00006	99.68%	73.25	99.06%	0.00943	146.76	91.21%	49.79
10	0.00006	0.00007	0.00007	99.68%	72.25	99.07%	0.00935	142.19	90.34%	49.26
11	0.00007	0.00008	0.00007	99.67%	71.26	99.08%	0.00927	123.88	89.50%	48.72
12	0.00009	0.00009	0.00009	99.66%	70.26	99.09%	0.00919	107.39	88.67%	48.17
13	0.00011	0.00010	0.00010	99.65%	69.27	99.10%	0.00912	88.63	87.86%	47.61
14	0.00014	0.00011	0.00012	99.64%	68.27	99.11%	0.00906	74.70	87.05%	47.05
15	0.00018	0.00012	0.00015	99.63%	67.28	99.11%	0.00900	60.33	86.27%	46.47
16	0.00023	0.00014	0.00019	99.62%	66.29	99.12%	0.00895	48.28	85.49%	45.89
17	0.00030	0.00016	0.00023	99.60%	65.31	99.13%	0.00892	38.85	84.72%	45.30
18	0.00038	0.00017	0.00027	99.57%	64.32	99.14%	0.00888	32.36	83.97%	44.70
19	0.00045	0.00019	0.00032	99.55%	63.34	99.15%	0.00884	27.56	83.22%	44.10
20	0.00052	0.00020	0.00036	99.52%	62.36	99.16%	0.00880	24.40	82.49%	43.49
21	0.00057	0.00022	0.00039	99.48%	61.38	99.16%	0.00876	22.26	81.76%	42.87
22	0.00062	0.00023	0.00043	99.44%	60.40	99.17%	0.00871	20.42	81.04%	42.24
23	0.00065	0.00025	0.00045	99.40%	59.43	99.18%	0.00866	19.23	80.34%	41.61
24	0.00069	0.00026	0.00047	99.35%	58.46	99.19%	0.00860	18.22	79.64%	40.97
25	0.00072	0.00026	0.00049	99.31%	57.48	99.19%	0.00854	17.37	78.96%	40.32
26	0.00073	0.00027	0.00050	99.26%	56.51	99.20%	0.00848	16.90	78.28%	39.66
27	0.00074	0.00028	0.00051	99.21%	55.54	99.21%	0.00841	16.43	77.62%	39.00
28	0.00074	0.00029	0.00051	99.16%	54.57	99.22%	0.00834	16.21	76.97%	38.32
29	0.00074	0.00031	0.00052	99.11%	53.60	99.22%	0.00828	15.83	76.33%	37.64
30	0.00076	0.00032	0.00054	99.05%	52.62	99.23%	0.00822	15.21	75.69%	36.95
40	0.00097	0.00055	0.00076	98.46%	42.91	99.30%	0.00774	10.22	69.88%	29.62
50	0.00230	0.00157	0.00193	97.33%	33.34		0.01092	5.65	63.86%	21.92
60	0.00640	0.00435	0.00537	94.29%	24.23		0.02710	5.04	51.82%	15.78
70	0.01736	0.01166	0.01451	86.32%	15.94		0.04754	3.28	36.30%	10.31
80	0.05367	0.03705	0.04536	67.05%	8.87		0.10470	2.31	17.98%	5.63
90	0.17937	0.13966	0.15951	27.06%	4.07		0.28888	1.81	2.69%	2.43
100	0.42540	0.37565	0.40053	1.33%	1.79		0.69462	1.73	0.01%	1.03