

# Life expectancy of people with cerebral palsy

Professor Jane L Hutton,  
Department of Statistics,  
University of Warwick

WCPRD at Pisa 2012 ICPC  
11 October 2012

## Registers publishing on life expectancy

- North East Thames, South East Thames
- UKCP: Mersey and Cheshire, North England, Oxford, Scotland, Northern Ireland
- Canada
- Western Australia and Victoria, Australia
- Southern Sweden

Californian Database of Mental Retardation.

# Factors affecting life expectancy, world-wide

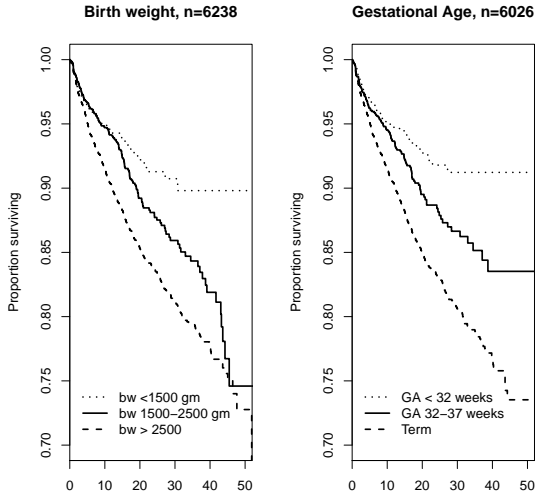
- ambulation, general mobility, lower limb function
- manual dexterity, upper limb function
- mental ability, (range of words)
- visual ability
- birth weight
- gestational age
- growth restriction
- year of birth?

# UKCP registers used for detailed results

Geographically based cohorts.

- Merseyside and Cheshire Cerebral Palsy Register, 1966-1991
- North of England Collaborative Cerebral Palsy Survey, 1960-1999
- Northern Ireland Cerebral Palsy Register, 1981-2008
- 4Child (Oxford Register of Early Childhood Impairments) 1984-1997
- Cerebral Palsy Register for Scotland 1984-1990

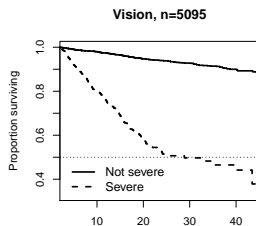
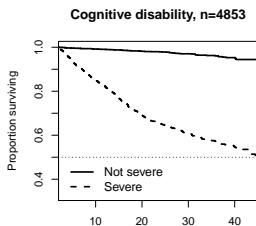
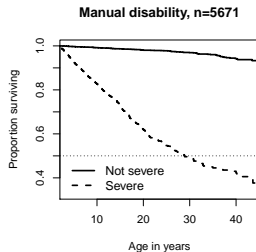
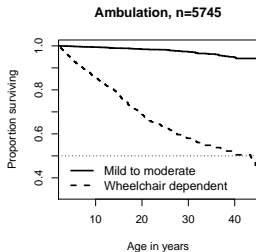
# Life time: Birth weight, gestation



## Life expectancy: Birth weight, gestation

Characteristic	Percentage living from age 2 to				
	10 yrs	20 yrs	30 yrs	40 yrs	
Birth weight (g)	< 1500	97	94	93	93
	1500 - 2499	96	91	87	83
	≥2500	94	87	83	80
Gestational age (weeks)	<32	97	94	91	91
	32-36	97	92	88	86
	≥37	94	87	82	76
Zscore (centiles)	< 10th	95	87	82	78
	10-90th centile	95	90	85	82
	< 90th	95	89	84	79

# Life time: individual impairments

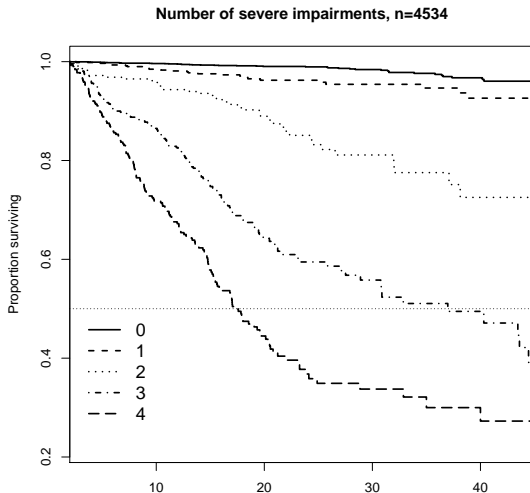


## Life expectancy: individual impairments

	Percentage living from age 2 to			
	10 yrs	20 yrs	30 yrs	40 yrs
<b>Ambulation:</b> Not severe	99	99	97	95
Wheelchair required	86	69	58	52
<b>Upper limb:</b> Not severe	99	98	97	94
Cannot feed or dress	83	62	49	42
<b>Mental ability:</b> IQ $\geq$ 50	99	98	97	95
IQ < 50	85	97	61	55
<b>Vision:</b> Not severe	98	95	93	90
< 6/60 in better eye	80	58	50	44



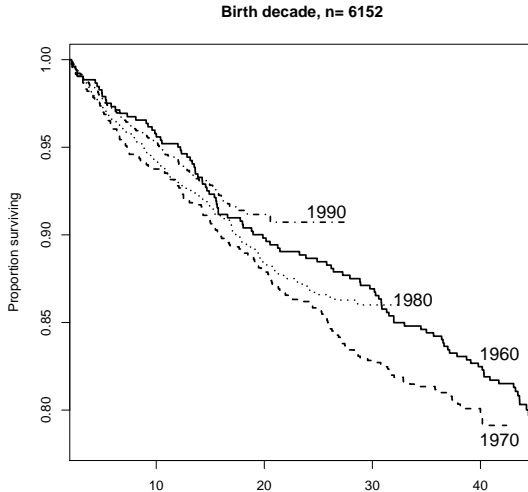
# Life time: Number of Impairments



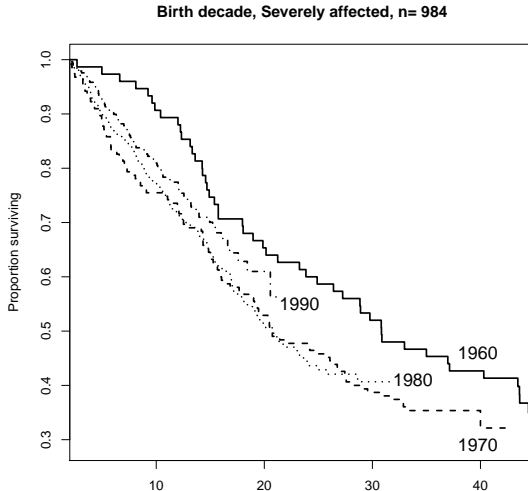
## Life expectancy: Number of Impairments

Severe impairments	Percentage living from age 2 to			
	10 yrs	20 yrs	30 yrs	40 yrs
None	100	99	98	97
One	98	96	95	93
Two	96	89	81	73
Three	86	64	56	49
Four	72	44	34	27
Any missing	90	83	74	69

# Life expectancy: Secular trend



# Life expectancy: Secular trend



## Underlying causes of death

Chapter		Male		Female		Total	
		No	%.	No.	%	No.	%
I-V	Disease, CA	29	6	26	7	55	7
VI	Nervous	223	45	158	45	381	45
X	Respiratory	94	19	68	20	162	19
IX,XI-XIV	Systems	53	11	37	11	90	11
XVI,XVII	Peri'l Cong'l	65	13	46	13	111	13
XVIII-XX	External	30	6	13	4	43	5
VI	CP only	168	34	121	35	289	34
VI	Epilepsy	26	5	14	4	40	5
X	Pneumonias	48	10	43	12	91	11
Total		494	100	348	100	842	100

# Acknowledgements

POD Pharoah, MJ Platt: Merseyside and Cheshire Cerebral Palsy Register

A Colver, S Jarvis: North of England Collaborative Cerebral Palsy Survey

Jackie Parkes, Helen Dolk: Northern Ireland Cerebral Palsy Register

A Johnson, G Surman, J J Kurinczuk: 4Child (Oxford Register of Early Childhood Impairments)

L Mutch, S Bonellie: Cerebral Palsy Register for Scotland

K Hemming, former post-doc, now Birmingham University  
Office for National Statistics, UK