Annex 1 (Web extra)
Database searches

Embase

1 Huntington chorea/ (13436)
2 Huntington* chorea.tw. (1216)
3 Huntington* diseas*.tw. (9586)
4 1 or 2 or 3 (15004)
5 incidence/ (169487)
6 incidence*.tw. (496357)
7 5 or 6 (560558)
8 4 and 7 (160)

Medline

1 Huntington Disease/ (8272)
2 (Huntingt* adj2 (diseas* or chorea*)).tw. (9425)
3 or/1-2 (10898)
4 Incidence/ (148618)
5 Incidence*.tw. (427236)
6 or/4-5 (497129)
7 3 and 6 (103)

Annex 2 (web extra)
Annual incidence rates of HD 1990-2010

Year	Incident cases	Population at risk	Incidence (per million patient years)	Incidence (95% confidence intervals)
1990	1	177,201	5.64	0.14 to 31.44
1991	9	590,478	15.24	7.00 to 28.93
1992	2	887,429	2.25	0.27 to 8.14
1993	4	1,054,175	3.79	1.03 to 9.72
1994	16	1,228,009	13.03	7.45 to 8.14
1995	10	1,357,716	7.37	3.5 to 13.54
1996	14	1,483,605	9.44	5.16 to 21.16
1997	13	1,658,058	7.84	4.17 to 13.41
1998	11	1,956,579	5.62	2.81 to 10.06
1999	16	2,209,354	7.24	4.14 to 11.76
2000	21	2,574,200	8.16	5.05 to 12.47
2001	26	3,063,386	8.49	5.54 to 12.44
2002	22	3,392,342	6.49	4.06 to 9.82
2003	29	3,679,254	7.88	5.28 to 11.32
2004	33	3,905,273	8.45	5.82 to 11.87
2005	34	4,156,147	8.18	5.67 to 11.43
2006	28	4,263,980	6.57	4.36 to 9.49
2007	31	4,295,599	7.22	4.91 to 10.24
2008	19	4,330,199	4.39	2.64 to 6.85
2009	23	4,330,452	5.31	3.37 to 7.97
2010	31	4,240,933	7.31	4.97 to 10.38

Annex 3 (Web extra)
Excluded studies

Study ID	Reason(s) for exclusion
Adams 1988[w1]	Study of the age of onset of symptoms in a group of people with HD but no estimates of prevalence or incidence
Aiyesimoju 1984[w2]	No population based numerator or denominator for the incidence or prevalence of HD
Alonso 2009[w3]	No adequate data for incidence or prevalence to be estimated.
Avila-Giron 1973[w4]	No denominator. No data on prevalence
Bayulkem 1961[w5]	Denominator is numbers of hospital admissions not population based.
Bell 1934[w6]	No estimate of incidence or prevalence of HD
Brothers 1949[w7]	Description of HD in Tasmania indicating a common ancestor. No prevalence or incidence estimates.
Carter 1983[w8]	No estimates of incidence or prevalence of HD
Cchutani 1957[w9]	Description of cases of HD in the Punjab but no estimates of incidence or prevalence of HD.
Cendrowski 1964[w10]	No estimate of incidence or prevalence of HD
Critchley 1934[w11]	Only hospitalised patients committed under Mental Health Act. No population denominator
Cruz-Croke 1994[w12]	Appears to be a mixture of patients reported in the literature supplemented by own hospital data. We cant exclude the possibility of double counting.
Ekestern 2005[w13]	Austrian study of mortality rates of people with HD but no incidence or prevalence or data.
Gatto 2009[w14]	No estimate of incidence or prevalence of HD
Gatto 2010[w15]	No estimate of incidence or prevalence of HD.
Ginter 1999[w16]	No specific estimate of numbers of HD patients and no estimate of incidence or prevalence
Harper 1981[w17]	No original data on incidence or prevalence of HD.
Harvey 2003[w18]	HD patients confined to those aged <65 years with cognitive impairment. No population estimate.
Hecimovic 2002[w19]	Not a study of incidence
Hemminki 2006[w20]	Study of hospitalisation rates for HD but no population-based estimates of incidence or prevalence rates
Hendricks 2009[w21]	Study of probabilities of inheriting expanded CAG repeat but no estimates of incidence or prevalence rates.
Huifang 2010[w22]	Part review and part case-series. No prevalence data.

Husquinet 1985[w23]	Uses data from psychiatric registers and expresses prevalence in relation to live births.
Imaizumi 1993[w24]	Concerned solely with mortality rates based on death certification.
Korenyi 1973[w25]	No incidence or prevalence estimates.
Laccone 1999[w26]	Not an incidence or prevalence study
Lawal 2009[w27]	No data relating to incidence or prevalence of HD
Loy 2010[w28]	No original data; an estimate of the likely increase based on “population structure” since McCusker 2000.
Marx 1973[w29]	Study of genetic fitness. No estimate of prevalence or incidence
Mattsson 1985[w30]	No new data on incidence or prevalence from Mattsson 1974
Minski 1938[w31]	No estimate of incidence or prevalence of HD.
Morrison 2010[w32]	Provides a prevalence estimate for 2001 and full details were published in Morrison 2011 but no estimates of incidence
Paradisi 2008[w33]	No estimate of incidence or prevalence of HD
Pavoni 1990[w34]	Duplicate of incidence and prevalence (1971-1987) estimates by Govoni 1988
Petrin 1997[w35]	No specific estimates of the incidence and prevalence of HD.
Pramanik 2000[w36]	No estimate of prevalence or incidence of HD
Quarrell 2009[w37]	No original data on incidence or prevalence of HD
Raskin 2000[w38]	No incidence/prevalence estimates
Rubinsztein 1994[w39]	No original data on incidence or prevalence of HD
Saleem 2003[w40]	No original data on incidence or prevalence of HD
Scholefield 2007[w41]	No original data on incidence or prevalence of HD
Shaw 1982[w42]	No original data on incidence or prevalence of HD
Siesling 1997[w43]	No estimate of the prevalence/incidence of HD
Singer 1962[w44]	Not a population study. No estimate of incidence or prevalence of HD
Spillane 1937[w45]	No estimates of incidence or prevalence of HD
Squitieri 1994[w46]	No estimate of prevalence/incidence.
Whittier 1973[w47]	No estimate of prevalence but enumeration of the number of living patients in one institution (n=7) plus others (n=6) in the community.

Annex 5 (Web extra)
Further details of included studies

Study ID	Location	Incidence year(s)	Ages studied	Population size	Numbers of incident cases	Patient-years	Incidence per 1000,000 person-years (95%CIs)	Age of onset	Comments
Eastern Asia									
Chen 1968[6]	Guam	1960-1966	All ages	37,975	0	265,825	0.00 (0 to 13.9)	Not stated	
Chang 1994[26]	Hong Kong China	1984-1991	All ages	5,440,000	20	43,520,000	0.46 (0.28 to 0.71)*	37.6 (range 20 to 52)	
Chen 2010[9]	Taiwan	2000-2007	All ages	2001 = 22.4m 2002 = 22.5m 2003 = 22.6m 2004 = 22.7m 2005 = 22.8m 2006 = 22.9m 2007 = 23.0m	2001 = 11 2002 = 21 2003 = 27 2004 = 36 2005 = 31 2006 = 20 2007 = 19	2001 = 22.4m 2002 = 22.5m 2003 = 22.6m 2004 = 22.7m 2005 = 22.8m 2006 = 22.9m 2007 = 23.0m	2001 = 0.5 (0.2 to 0.9)* 2002 = 0.9 (0.5 to 0.9)* 2003 = 1.0 (0.7 to 2.0)* 2004 = 2.0 (1.0 to 2.0)* 2005 = 1.0 (0.9 to 2.0)* 2006 = 0.8 (0.5 to 1.0)* 2007 = 0.8 (0.4 to 1.0)*	Not stated	Also includes age specific rates
Australasia									
McCusker 2000[29]	NSW Australia	1991 & 1996	All ages	1991 = 5,732,031 1996 = 6,038,969	1991 = 26 1996 = 39	1991 = 5,732,031 1996 = 6,038,969	1991 = 4.5 (3.0 to 6.7) 1996 = 6.5 (4.6 to 8.8)	47.9 (SD 13.7)	
Europe									
Palo 1987[7]	Finland	1980s	All ages	4,900,000	2	4,900,000	0.2 to 0.4 (0.02 to 1.3)*	Not stated	Number of incident HD cases by back extrapolation = 1 or 2 depending on which incidence estimate used!
Govoni 1988[27]	Ferrara, Italy	1971-1987	All ages	377,006	1971-1975 = 3 1976-1980 = 1 1981-1987 = 3 1971-1987 = 7	6,032,096	1971-1975 = 1.5 (0.3 to 4.4) 1976-1980 = 0.5 (0.01 to 2.8) 1981-1987 = 1.1 (0.2 to 3.2) 1971-1987 = 1.1 (0.4 to 2.3)	Not stated	Patient years calculated by back extrapolation.
Ramos-Arroy 2005[28]	Navara & Basque, Spain	1994-2002	All ages	2,550,000	1994 to 2002 = 111	21,165,000	4.7 (4.5 to 6.3)*	43.7 (SD 15)	Population estimate by back extrapolation My Cis (but need checking!)
Mercy 2008[8]	Cambridge UK	2000-2006	45 to 64 years	75,600	9	453,600	8.0 (2.0 to 23)	Not stated	Restricted age population

Sackley 2011[10]	United Kingdom	2004-2008	All ages	2004=2,840,202 2005=2,948,206 2006=2,977,044 2007=2,983,870 2008=2,964,386	2004 = 14 2005 = 23 2006 = 19 2007 = 15 2008 = 13	2004 = 2,840,202 2005 = 2,948, 206 2006 = 2,977,044 2007 = 2,983,870 2008 = 2,964,386	2004 = 7 (3 to 8)* 2005 = 7.8 (5.0 to 12)* 2006 = 6 (4 to 10)* 2007 = 5 (3 to 8)* 2008 = 4 (2 to 7)*	48.3 (SD14.)	Not sure whether the age at diagnosis relates to the incident cases only or includes prevalent ones too
Sveinsson 2012[11]	Iceland	1988-2007	All ages	2007=311,114	8	5,714,285	1.4 (0.6 to 2.8)*	51 (range 28-68)	Patient years calculated by back extrapolation
Douglas 2013[12]	United Kingdom	1990-2010	<21 years	1990 = 248,518 2010 = 1,167,683	12	17,142,857	0.70 (0.36 to 1.22)	Median = 15 (range 5 to 20)	
Current study	United KIngdom	1990-2010	>20 years	9,282,126	393	54,907,468	7.2 (6.5 to 7.9)	52 years (SD 16)	Also includes incidence estimates by year 1990-2010
North America									
Kokman 1994[30]	Minnesota USA	1950-1989	All ages	106,000	10	4,134,000	Definite = 3.0 (1.0 to 5.0) Def + prob = 5.0 (3.0 to 9.0)	Not stated	Patient years calculated by back extrapolation.
Almqvist 2001[31]	British Columbia Canada	1996-1999	All ages	4,000,000	110	16,058,394	6.9 (5.7 to 8.3)*	46.9 (SD 13.7)	Author states population is “approx”. Patient years calculated by back extrapolation.

Annex 4 (As web extra)
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