

Hypertension prevalence ready-reckoner

This tool can be used to estimate the number of people within a primary care organisation's local area who have hypertension (persistent raised blood pressure of 140/90mmHg or above), treated and untreated, controlled and uncontrolled.



An electronic version of the Hypertension ready-reckoner – which can be completed online – can be found at: www.fph.org.uk. (See Policy and Communications, Publications, 'Easing the Pressure: Tackling Hypertension'.)

How to use the ready-reckoner

- 1 In cells A1-A7 and B1-B7 enter the actual numbers of residents in each age group, based on latest population estimates for your area.
- 2 Calculate the other cell values according to the formulae shown below.

		PCO* population		Estimate of number of hypertensives	
		Male	Female	Male	Female
	Age	A	B	C	D
1	15-24	Enter actual number	Enter actual number	$A1 \times 0.06$	$B1 \times 0.02$
2	25-34	Enter actual number	Enter actual number	$A2 \times 0.11$	$B2 \times 0.05$
3	35-44	Enter actual number	Enter actual number	$A3 \times 0.20$	$B3 \times 0.11$
4	45-54	Enter actual number	Enter actual number	$A4 \times 0.35$	$B4 \times 0.23$
5	55-64	Enter actual number	Enter actual number	$A5 \times 0.51$	$B5 \times 0.47$
6	65-74	Enter actual number	Enter actual number	$A6 \times 0.64$	$B6 \times 0.64$
7	75 plus	Enter actual number	Enter actual number	$A7 \times 0.64$	$B7 \times 0.75$
8	TOTALS	Sum of A1-A7	Sum of B1-B7	Sum of C1-C7	Sum of D1-D7
Of those who are hypertensive:					
9		Estimated number receiving treatment:		$C8 \times 0.37$	$D8 \times 0.46$
10		Estimated number not receiving treatment:		$C8 \times 0.63$	$D8 \times 0.54$
Of those receiving treatment:					
11		Estimated number controlled:		$C9 \times 0.46$	$D9 \times 0.44$
12		Estimated number uncontrolled:		$C9 \times 0.54$	$D9 \times 0.56$

* PCO = primary care organisation

Source: Formulae based on the *Health Survey for England 2003*¹

Note: This ready-reckoner takes no account of ethnicity, deprivation or other factors that might affect hypertension prevalence; nor of recent changes in the proportion controlled. It can give only a rough approximation based on all-England data collected in 2003.

EXAMPLE

The following is a worked example of how to use the ready-reckoner, based on 2003 mid-year population estimates (rounded) for Southwark Primary Care Trust, London. (Numbers are in 000s.)

		Population of Southwark PCT (000s)		Estimate of number of hypertensives (000s)	
		Male	Female	Male	Female
Age		A	B	C	D
1	15-24	17.0	17.2	$A1 \times 0.06 = 1.02$	$B1 \times 0.02 = 0.34$
2	25-34	29.5	25.9	$A2 \times 0.11 = 3.25$	$B2 \times 0.05 = 1.30$
3	35-44	24.4	22.7	$A3 \times 0.20 = 4.88$	$B3 \times 0.11 = 2.50$
4	45-54	13.0	13.1	$A4 \times 0.35 = 4.55$	$B4 \times 0.23 = 3.01$
5	55-64	8.5	9.3	$A5 \times 0.51 = 4.34$	$B5 \times 0.47 = 4.37$
6	65-74	6.4	7.4	$A6 \times 0.64 = 4.10$	$B6 \times 0.64 = 4.74$
7	75 plus	4.6	7.5	$A7 \times 0.64 = 2.94$	$B7 \times 0.75 = 5.63$
8	TOTALS	Sum of A1-A7 = 103.4	Sum of B1-B7 = 103.1	Sum of C1-C7 = 25.08	Sum of D1-D7 = 21.89

		Of those who are hypertensive:	
9	Estimated number receiving treatment:	$C8 \times 0.37 = 9.28$	$D8 \times 0.46 = 10.07$
10	Estimated number not receiving treatment:	$C8 \times 0.63 = 15.80$	$D8 \times 0.54 = 11.82$

		Of those receiving treatment:	
11	Estimated number controlled:	$C9 \times 0.46 = 4.27$	$D9 \times 0.44 = 4.43$
12	Estimated number uncontrolled:	$C9 \times 0.54 = 5.01$	$D9 \times 0.56 = 5.64$

Thus:

The total estimated number of people in Southwark PCT with hypertension is:

$$C8 + D8 = 25.08 + 21.89 = 46.97 \text{ (000s)} = 46,970$$

The total estimated number of hypertensives not receiving treatment is:

$$C10 + D10 = 15.80 + 11.82 = 27.62 \text{ (000s)} = 27,620$$

The total estimated number of those receiving treatment who are uncontrolled is:

$$C12 + D12 = 5.01 + 5.64 = 10.65 \text{ (000s)} = 10,650$$

Reference

- 1 Joint Health Surveys Unit. 2004. *Health Survey for England 2003. Volume 2 Risk Factors for Cardiovascular Disease*. London: The Stationery Office.