

APPENDIX 2: Cost of Manikin

Although the suppliers 'Limbs and Things' do not specify a time limit for use of the equipment, on average, a 5 year period is thought to be an appropriate time to replace a pelvic manikin. The pelvic manikin is a capital cost incurred by the ERC at BWH.

The pelvic model was purchased on 7/4/2010. The cost was inflated to get it in parity with all other costs accounted for in the base case. The cost of the manikin was worked out to be £3454.08.

Personal Social Services Research Unit: Unit Costs of Health and Social Care 2014 (Compiled By Lesley Curtis)

16.2 The hospital & community health services (HCHS) index

Hospital and community health services (HCHS) pay and price inflation is a weighted average of two separate inflation indices: the pay cost index (PCI) and the health service cost index (HSCI). The PCI measures pay inflation in the HCHS. The PCI is itself a weighted average of increases in unit staff costs for each of the staff groups within the HCHS sector. Pay cost inflation tends to be higher than pay settlement inflation because of an element of pay drift within each staff group. Pay drift is the tendency for there to be a gradual shift up the incremental scales, and is additional to settlement inflation. The estimate of pay inflator for the current year is based on information supplied by the Department of Health and on pay awards of NHS staff. The HSCI is calculated monthly to measure the price change for each of 40 sub-indices of goods and services purchased by the HCHS. The sub-indices are weighted together according to the proportion of total expenditure which they represent to give the overall HSCI value. The pay cost index and the health service cost index are weighted together according to the proportion of HCHS expenditure on each. This provides an HCHS combined pay & prices inflation figure.³

Year	Hospital & community health services (HCHS)		
	Pay & prices index (1987/8=100)	Annual % increases	
		Prices ⁴	Pay ⁴
2003/04	224.8	1.5	7.3
2004/05	232.3	1.0	4.5
2005/06	240.9	1.9	4.7
2006/07	249.8	3.0	4.1
2007/08	257.0	1.8	3.5
2008/09	267.0	5.2	3.0
2009/10	268.6	-1.3	1.8
2010/11	276.7	2.8	3.1
2011/12	282.5	4.1	0.9
2012/13	287.3	3.1	0.9
2013/14	290.5	1.8	0.7

Inflation of costs

	Indices	Manikin Cost (5 years)
2010/2011	276.7	£3290
2013/2014	290.5	£3454.08

The annual cost for the manikin over 52 weeks was calculated using the formula in the box below. The recommended discount rate of 3% was applied, which is a good proxy for the interest rate. (Drummond, M.F. et al., 2005)

$$K = E / (1+r) + \dots E / (1+r)^n$$

K = capital outlay; E = annual cost for the capital outlay; n = number of years; r = interest rate

What is E?

Capital outlay = K = 3454.08

n = 5 years

Interest rate = r = 3%

$$K = E / (1+r) + E / (1+r)^2 + E / (1+r)^3 + E / (1+r)^4 + E / (1+r)^5$$

3454.08 = E [Annuity factor, 5 years, interest rate 3%] – from Annex 4.2, Discount Table 2

$$3454.08 = E [4.5797]$$

∴ E = £754.22 = Annual cost for the pelvic manikin over 52 weeks

During the trial, the pelvic manikin was used from 27th August 2013 to 14th November 2014 where teaching was only conducted during the first week of the O&G placement.

In total 9 placements were recruited into the RCT.

Therefore, the cost of the manikin over nine weeks of teaching was £130.54, and over 1 week of teaching was £14.50.