**Infodoc 09 | **

How much does water fluoridation cost?

Between the financial years 1985/86 and 1992/93, the cost to the Treasury was as follows:

NB. Figures are given in multiples of £1,000

Table 1.1

Key: Yr = Year; Nor = Northern; Tre = Trent; NWT = North West Thames; Oxf = Oxford.

Yr	Nor	Tre	NWT	Oxf
86	0	0	0	0
87	3	105	0	14
88	38	0	0	0
89	0	8	0	0
90	55	0	75	0
91	0	245	0	0
92	0	54	0	0
93	113	535	0	0
Tot	209	947	75	14

Table 1.2

Key (cont.): WM = West Midlands; NW = North West; Yk = Yorkshire; Mer = Mersey.

Yr	WM	NW	Yk	Mer
86	0	20	0	0
87	251	0	0	0
88	385	10	0	0
89	936	10	0	0
90	300	0	0	0
91	0	0	0	0
92	0	42	12	0
93	135	11	0	102
Tot	2007	93	12	102

Note: Figures include funding towards feasibility studies, reports and or capital costs of schemes. (Source: Written Answers, Hansard, 13th January 1994).

The total expenditure for this period is **£3,459,000** from the Treasury's 'Central Fund' alone (NB. For a small percentage of the population only).

However, water companies who implement fluoridation schemes obtain full financial reimbursement from the Health Authority responsible for the application. The Health Authorities in turn obtain only part of the funding from central Government. So the question is: what percentage does the above table represent to the total cost of fluoridation?

A clue lies in the letter sent by the Department of Health & Social Security to the West Midlands Regional Health Authority in February 1982.

The letter gives the following table of estimated costs for WOLVERHAMPTON AND WORCESTER schemes;-

Table 2

Key: Yr = Year; PCE = Proposed Capital Expenditure; RHA = Regional Health Authority commitment; GCF = Grant from Central Funds; %CF = Percentage of Central Funds

NB. Figures are given in multiples of £1,000

Yr	PCE	RHA	GCF	%CF
83	350	325	25	7.1
84	740	550	190	25.7
85	821	625	196	23.9
86	315	250	65	20.6
Tot	2226	1750	476	21.4

This table shows that only about a fifth of all costs for fluoridation schemes comes from Central Funding. This in turn means that a total of approximately ***£16 million pounds** would have been spent over an eight year period implementing or maintaining fluoridation schemes (*calculations are based on the first and second tables - £3,459,000 divided by 21.4%).

The next calculation to consider is how much water is used by industry and how much in the home. Estimates on industrial usage can vary significantly.

Industry can take between 40 to 80% of all supply but only the lower figure will be used in the following formula.

Table 3

Key: R = References; Use = Water Usage; Form = Formula used; Res = Result (in Litres); Nt = Notes

References: Dom = Domestic Usage; Ind = Industry; ST = Sub-Total; Con = Physcially consumed; U18 = Children Under 18; FR = Fluoride Retained by the body.

R	Use	Form	Res	Nt
a	Dom	18k/58m	310.3	1
b	Ind	310.3 x 60%	206.9	2
c	ST	a + b	517.2	3
d	Con	a x 2%	6.2	4
e	U18	d x 23%	1.4	5
f	FR	e x 50%	0.7	6

NB. Figures based on 100% fluoridation of a population.

Notes

[1] Water UK states that the water industry provides about 18,000 million litres of water to 58 million people, per day (domestic customers).

[2] The amount of water used by industry (water company claim and using lowest estimate).

[3] Total amount of water provided by water companies.

[4] Water physically consumed (drinking, cooking, etc.) as opposed to other usage (washing machines, washing up, bathing, etc.).

[5] Based on commonly agreed principal that only children are supposed to benefit from drinking fluoridated water. The child population of England & Wales is approximately 23% based on estimates from the Office of National Statistics.

[6] The average amount of fluoride retained by the body.

Conclusion

Of the 517.24136 litres of water provided by water companies each day (based on single user consumption and including industry percentage usage), only 1.42759 litres reaches it's intended target (children under 18).

This simply means that by dividing 517.24136 by 1.42759, the actual percentage of any 'use', is 0.276% of total supply.

Consequently, 99.724% of fluoridated water is wasted (where water is 100% fluoridated).

Alternatively ...

For every £100 spent on fluoridation, only 27.6p worth is physically consumed by children. Of this 27.6p worth, about 13.8p worth will be excreted. Of the remaining 13.8p, only a proportion of this amount will reach developing teeth.

Do you think this is a good way to spend money? Would you be prepared to spend £100 on a product when you knew in advance that at least £99.72 would be wasted?

Question: SO HOW MANY £10's OR £100's MILLIONS OF POUNDS OF TAXPAYER'S MONEY WILL BE SQUANDERED ON THE GOVERNMENT'S PLAN TO INCREASE THE NUMBER OF FLUORIDATION SCHEMES?

Answer: PERHAPS YOU SHOULD ASK THE PHOSPHATE FERTILISER INDUSTRY HOW MUCH IT WOULD COST THEM TO DISPOSE OF THEIR HIGHLY TOXIC DISCHARGES VIA OTHER ROUTES. PERHAPS THE INDUSTRY MAY BE ABLE TO TELL US HOW MUCH MONEY THEY HAVE SAVED THEIR SHAREHOLDERS.