Letters

Skeptics Criticize Fluoridation

If Sapolsky in his article on fluoridation of public drinking water (25 Oct., p. 427) will only change the word fluoride to fungicide and the words tooth decay to athlete's foot, his plea would be as logical. Adding fungicide to drinking water would reduce foot infection everytime anyone bathed. (It would not even discriminate against older people.)

Fluoridation of the public drinking water (using it as a vehicle for mass distribution) should not be compared to chlorination and pasteurization (purification processes) or mass inoculation. If we are to allow our public drinking water to become a vehicle for one "necessity," then why not for all? It may some day be necessary to add tranquilizers or contraceptives, at least in the minds of public officials.

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Sapolsky does not summarize the arguments against fluoridation adequately. Skepticism about fluoridation is fully justified by the following points:

1) The quantity of water consumed by a population is a minute fraction of the available water supply. The quantity consumed by dental caries sufferers would be a fraction of that fraction. It seems irrational to fluoridate water that is destined not for human consumption but for industrial uses, street cleaning, laundering, and so on.

2) Dental caries could be dealt with preventively by administering the fluoride as trace additions to items like toothpaste, table salt, candy, or soft drinks. If that were done, objectors to compulsory medication would be free to choose brands of these commodities that were not enriched with fluorides.

3) Assuming that there are as many sufferers from headaches or scurvy as there are dental caries patients in the population, one would still hesitate, for obvious reasons, before enriching the water supply with aspirin or with ascorbic acid.

4) Lastly, fluoride (unlike iodine which quite rightly is added to some brands of salt) has not been shown to be an essential trace element for the support of life, and medication with fluoride can hardly be interpreted as compensating for a natural deficiency.

It would appear that there ought to be a better way than treating water supplies haphazardly with fluorides for ensuring a lower incidence of tooth decay in any population.

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Sapolsky states, "Fluoridation of the public water . . . is the least expensive method." Fluoridation of the water in a city with a population of about 100,000 people would cost approximately 10 cents a person per year, claim the proponents. Cost per child who benefits, however, would be about 50 cents a child per year (20 percent of population below age 12). The initial cost of equipment, which is between $30,000 and $40,000 for a city this size, and the cost of upkeep are seldom considered.

The price of fluoride tablets is much cheaper when purchased in large quantities. The cost is from 20 to 40 cents per thousand, determined by how many million tablets are ordered, according to one pharmaceutical manufacturer. Each tablet is a 2-day supply, which means the cost per child per year would be 4 to 8 cents.

Fluoridation: 50 cents times 20,000 equals $10,000 per year. Fluoride tablets: 6 cents times 20,000 equals $1200 per year. Which is actually the least expensive? Also consider that well over 90 percent of the fluoridated water never reaches those who benefit, which adds to the waste.

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Implicit in Sapolsky's article is the imperative that society enjoy the benefits which fluoridation, and presumably other new technologies, offer. He would rely on administrative and legislative bodies, "with their more deliberate procedures and their greater capacity to distinguish among experts" and their "careful treatment of the technical questions," to resolve risk-benefit questions and make value judgments. Then if, in their infinite wisdom, they deemed it appropriate, the benefits would be thrust upon the public.

It is perfectly clear that the public is not fully equipped to resolve the fluoridation question and that much of the opposition to fluoridation stems from quackery or worse. Nevertheless, as Sapolsky himself points out, "medical science knows relatively little about the long-term effects of continuous fluoride intake" which he and the public health groups would force upon the population. Whatever, and however minimal, the risks may be, should not the public which would receive the benefits have some voice as to whether it desires to assume the risks?

Why should anyone be distressed that the public, for whatever reason, rejects technological benefits? Why is progress imperative? Why the great hurry? Although dental caries may be a public health problem, it is in fact a personal disease which does not spread, like smallpox, from one person to another. There are, moreover, alternatives for coping with dental decay without forcing medication upon those who don't want it. There is a question of principle involved which transcends the fluoridation controversy. As Sapolsky points out, there will undoubtedly be other innovations of a similar nature. Will we, a decade hence, be compelled to accept additives to the public water supplies to reduce fertility, sharpen mental processes or tranquilize the population, because the legislature so decrees?

Although public referenda may not be an appropriate means for making policy in these years, one must necessarily distrust the determination of administrative and legislative bodies. In the very nature of the process, administrative bodies cannot be relied upon to make acceptable risk-benefit judgments with respect to technologies which they are promoting, and legislatures tend to rely too heavily on the expertise of the administrative bodies, particularly when the latter, as proponents of the new technology, dismiss the opponents *ad hominem* as quacks and crackpots.

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