Soc. Sci. Med. Vol. 16, pp. 2155 to 2158, 1982
Printed in Great Britain

0277-9536/82/242155-04$03.00/0
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NEWS ITEM

WATER FLUORIDATION IN ELEVEN COUNTRIES

In several countries, there is an official policy supporting fluoridation of drinking water, but it is left to each city to decide whether to implement this policy. The decision is frequently made through a referendum. Sapolsky [1] and Arcus-Ting *et al.* [2] among others have analyzed and discussed these referenda. Sapolsky [1] and Head [3] have discussed the arguments typically used by the pro-fluoridation and anti-fluoridation forces during the campaigns.

There is an argument which might be termed the 'peer-pressure' argument. Crain [4] has discussed the effect on a given referendum of fluoridation decisions in nearby cities. But more generally both the pro- and anti-fluoridation forces refer to the status of fluoridation in other countries during the campaigns.

Referenda are still occurring. For example, there was a fluoridation referendum in the City of Waterloo, located in the Province of Ontario, in Canada, in June 1981. Waterloo is a city of about 52,000 people. Out of 10,000 votes cast, fluoridation was retained by a margin of about 300 votes. During the campaign, in order to influence Waterloo voters to retain fluoridation, the pro-fluoridation forces claimed that there was widespread support for fluoridation in other countries. For example, the former Medical Officer of Health of the City of Waterloo stated that "every reputable scientific authority throughout the entire world strongly advocates the addition of fluoride to the water supply . . ." [5].

Similarly, in order to influence voters against fluoridation, the anti-fluoridation forces claimed that fluoridation was being discredited and defeated in many other countries.

The present paper summarizes the results of a study made to resolve these conflicting claims. The study method was to contact directly the appropriate national government ministry in each of eleven countries outside North America. Each ministry was asked to provide information on the following points:

1. Results or conclusions of the most recent official inquiry into the fluoridation question.
2. Current official government policy on fluoridation.
3. Current extent of use of fluoridation and recent trend in extent of adoption.

The United States and Canada were not contacted as their official positions are well-known and fluoridation use is rather widespread in these two countries. Also, in what follows, reasoning used by the various governments in support of fluoridation is not reviewed as this reasoning is amply documented in the literature.

The responses of each government are summarized below in alphabetical order. It should be noted that Boettcher [6] made a similar study and the present results can be regarded as adding further details.

Australia

The Department of Health states that "the Commonwealth Government strongly supports the fluoridation of water and encourages communities to adopt this measure". Possibilities of adverse health effects have been examined carefully "and it is considered that there is no evidence to support" these possibilities [7].

In 1976, 47% of the population received fluoridation. Then Melbourne commenced fluoridation and the percentage increased to 67% as a result. "The figure has since dropped to 66.3% because two communities have discontinued the fluoridation of their water supplies".

"It is expected that fluoridation in . . . Victoria will move ahead in the next few years . . . (as a result of) . . . the Inquiry into the Fluoridation of Water Supplies in Victoria, which was requested by the Government of Victoria. This Inquiry strongly supported fluoridation . . .".

There is a "low level of fluoridation in Queensland, where only some 6 to 7% of the people are receiving fluoridated water . . ." [7].

Austria

The Bundesministerium für Gesundheit und Umweltschutz states that water fluoridation is not in use. Supply of fluoride is carried out by tablets exclusively [8].

Denmark

The Ministry of the Environment states that "fluoridation is not allowed in Denmark" [9]. On 3 January, 1977, the National Agency of Environmental Protection recommended to the Minister for the Environment "not to permit fluoridation of drinking water in Denmark. The recommendation of the Agency is among other things based upon the fact that a number of questions on human health and environment are not and hardly can be clarified" [10].

Following upon receipt of this recommendation, the Minister for the Environment issued on 5 January, 1977, a statement concluding that "the power warranted by section 48 of the Water Supply Act should not be applied to allow fluoridation of drinking water". Some of the reasons included in the statement as the basis for this conclusion are:

1. "It must be ensured that industrial enterprises within a water supply district do not produce goods that might be affected by an increased content of fluoride in the water supply".
2. "The greater part of the fluoride is not consumed . . . but is carried into the soil through irrigation or into watercourses, lakes, and the sea as wastewater. Knowledge about the consequences of an increased discharge of fluoride into marine and fresh waters is very limited". There is "a possibility that fluoride may be accumulated via food chains".
3. While there is "extensive documentation of the prophylactic effect on dental caries, . . . adequate studies have not been carried out of the long-term effect on other human organosystems".