As regards the fluoridation of drinking water, the Commission is opposed to legislation making it possible for municipal authorities to add fluoride to drinking water supplies. The various measures taken so far have led to a steep decline in the incidence of caries in recent years, and the Commission feels that further preventive effects can be obtained on a voluntary basis ... by means of ... improved popular dietary habits and oral hygiene and also by means of efficient individual fluoride treatment".

"... The combined and long-term environmental effects of fluoride are insufficiently known, which is yet another reason for rejecting fluoridation of water. The Commission has also found that no adequate survey report exists concerning the possible effects of fluoride administration via breast milk substitutes". Two of the seven members of the Commission filed a dissenting opinion. "The dissentients ... propose that each of Sweden's 279 municipalities be free to decide independently whether or not to increase the fluoride content of the drinking water. They feel that the administration of fluoride via drinking water is particularly valuable to socially and medically underprivileged groups in society. ... The dissentients feel that the adoption of a standpoint against water fluoridation ought logically to imply a standpoint in favour of defluoridation of water" naturally containing substantial amounts of fluoride, and yet "the majority has not recommended defluoridation" [18].

Switzerland

The Département fédéral de l'intérieur states [19] that "the City of Basle with a population of some 250,000 is the only town practising water fluoridation".

"All other cantons have decided against the addition of fluoride to water supplies, mainly for economical reasons. Water supplies are extremely decentralized in our country. An additional point against water fluoridation is the fact that only a small part of the water is actually used for human consumption. The desirable amount of fluoride is therefore administered to the population by means of cooking salt. Up to now our salt has been fluoridated to 90 ppm F. The Cantonal Public Health Departments have, however, just decided that the fluoride rate in cooking salt be increased to 250 ppm F, which will provide a level of daily fluoride intake similar to water at 1 ppm" [19].

United Kingdom

The Department of Health and Social Security states [20] that "since 1962 ... successive Governments have encouraged health authorities to seek introduction of fluoridation in their areas. Local Health Authorities are at present responsible for such preventive health measures. Water authorities have also been encouraged to comply with the requests of health authorities. The Government are convinced of the safety and efficiency of fluoridation but prefer to proceed with the consent of those concerned and to leave the decision to area health authorities locally".

"Water Authorities cannot be compelled to fluoridate and there are no plans at present to introduce legislation which would place on them a duty to do so. Although the Government regard their legal powers to add fluoride to water supplies as adequate, doubts have arisen and at this writing the Government are awaiting the outcome of two legal cases (one in Scotland and one in England) which may clarify the question of powers. Proceedings on the Strathclyde case in Scotland continue but no judgement has yet been made. The English case (Calderdale) has not yet been scheduled for hearing".

"Throughout the United Kingdom nearly 9% of the population (about 4.8 million people) is now receiving fluoridated water, mainly from schemes introduced before reorganization of health services and water supplies in April 1974. There is a new fluoridation scheme which is projected for Wolverhampton. This should mean a further 1.9 million people receiving artificially fluoridated water in due course" [20].

West Germany

The Bundesminister für Jugend, Familie und Gesundheit states [21] that only one city had used fluoridation but has ceased doing so. A 1974 federal law advocates fluoridation but provides for exceptions through negotiations with the provinces. The negotiations became complex and the Minister asked the Federal Health Authority to take up the problem. The Authority found deliberations on the problem very difficult and could not reach a final decision. Some of the reasons which the Authority found against fluoridation were:

1. Water is a necessary commodity for which there is no replacement. This means that in fluoridated areas everyone must ingest fluoride whether he wants to or not.
2. Because of the nature of the distribution system, the fluoride dose at the faucet can vary. This problem is further aggravated due to variable use of drinking water by individuals [21].

Greece and Ireland were not contacted in the present study. Boettcher states [6] that fluoridation is not used in Greece. He states that Ireland is the only country in Europe in which fluoridation in all water supply systems is obligatory. As of 1977 the extent of coverage had reached 30%. Boettcher estimates that with the cessation of fluoridation in the Netherlands, the proportion of the population of Europe receiving fluoridated water dropped from 2 to 1%.

As already stated, Canadian health authorities were not contacted in this study. It is of interest to note that a 1977 report [22] issued under the imprimatur of the Associate Committee on Scientific Criteria for Environmental Quality of the National Research Council of Canada listed the following areas in which research is needed or where caution is needed in connection with ingestion of fluorides:

1. "There is evidence that chronic intake of fluoride increases the long-term metabolic requirement for both calcium and magnesium. ... There is no doubt that inadequate nutrition increases the severity of fluoride toxicosis".
2. "Long-term ingestion, with accumulation of fluoride in animals and man, induces metabolic and biochemical changes, the significance of which has not yet been fully assessed. It cannot be assumed that such changes are of no significance to human health".
3. "Fluoride is a persistent bioaccumulator, and is entering into human food and beverage chains in increasing amounts" [22].