During the past few months, opponents of fluoridation have been circulating statements attributed to Mr. Ralph Nader questioning various aspects of fluoridation and charging failure of the Public Health Service to answer inquiries on these points. One of these items is in the form of a press release being circulated by letters addressed "Dear Friend" on a letterhead of the National Alliance Against Fluoridation with the instructions: "Please indicate to the newspaper that you had a meeting or conference at which this news was presented. Telephone conference would suffice irrespective of numbers of individuals involved."

A Congressional Subcommittee recently called attention to the alleged statements, and, while indicating personal support of fluoridation, asked what was being done to rebut such statements.

The scientific literature provides ample evidence of attention to the issues raised. The information provided by Viron L. Diefenbach, D.D.S., Assistant Surgeon General, in response to the alleged statements has been extracted from the Congressional testimony as an enclosure to this memo.
COMMUNITY WATER FLUORIDATION AND TOTAL FLUORIDE INTAKE*

In determining the fluoride level for drinking water which will have optimal dental health benefits but no adverse effects, the intake of fluoride from dietary sources has been taken into account. Studies have shown that the average diets of children and adults provide from one-fifth to one-half milligram of fluoride per day.\(^ {1-6}\) Further information on adult dietary fluoride intake is being obtained in a current Public Health Service-supported study. Atmospheric fluoride has been found to contribute relatively little to human intake (maximum: 0.046 milligram per day).\(^ {7-11}\) The available fluoride from pharmaceuticals, other than those formulated as fluoride supplements for specific and known therapeutic use, is negligible.\(^ {12}\)

Because fluorides occur so commonly as natural constituents of water supplies, research scientists have had a great natural laboratory in which to work for several decades.\(^ {13-20}\) Studies of large numbers of long-time residents have been made in areas of the United States having naturally fluoridated water with up to 8 parts per million or more fluoride. In these areas, the water was used for drinking, cooking, and food processing. These studies include ten-year medical investigations of large groups of individuals, roentgenologic surveys for bone changes, postmortem examinations and chemical analyses of tissues, and metabolic assessments.\(^ {21-32}\) Extensive research also has been done using laboratory animals.\(^ {33-34}\) Health statistics in high-fluoride and low-fluoride areas have been compared.\(^ {35-36}\) The findings from these studies have provided consistent evidence that, in addition to all food and ambient sources of fluoride, humans may daily ingest water having up to at least eight times the amount of fluoride provided by optimally fluoridated water without adverse effect other than mottling of tooth enamel. Mottling, however, does not result from the use of optimally fluoridated water.\(^ {37-39}\)

The Food and Nutrition Board of the National Research Council has stated
that fluoride is a normal constituent of all diets and is an essential
nutrient (1968). The American Institute of Nutrition has recognized
fluoridation as a safe, effective, and low-cost means of improving nutrition.
The U. S. Department of Agriculture Extension Service regards fluoridation as
an important community health benefit. Each of these organizations is
directly concerned with proper nutrition; each endorses community water
fluoridation.

In recognition of the dental benefits that accrue from fluoridation—
benefits which continue in adult life—the United States Army, Navy and
Air Force provide fluoridated water at all bases where children are in
regular residence. For the military personnel who come to the bases at
an age when water fluoridation is not effective, the Armed Forces have a
dental preventive program which includes the clinical application and per-
sonal use of fluorides.

Dental researchers who are exploring new techniques for combating tooth
decay are not seeking to supplant water fluoridation. Rather, their successes
will provide decay resistance for persons who have not had the protective
benefits of water fluoridation and possibly provide some additional resistance
for those who have. However, not all of the new decay preventive methods
envisioned will be adaptable to public health.

The policy of the Public Health Service on fluorides and fluoridation is
founded on extensive scientific knowledge. The Service makes every effort to
develop, obtain, and evaluate current relevant information by supporting re-
search, by reviewing current scientific literature and the popular press,
and through interdisciplinary contacts with other governmental and profes-
sional organizations. The Service also makes every effort to share what is
learned through these mechanisms with interested organizations, institutions
and individuals.

Fluoridation has undergone a nearly constant process of reevaluation
since its inception. Detailed reports have been published on all aspects of
fluoridation from cities in the United States and other countries that have
been fluoridating for 25 years, and from others with extensive but shorter
experience. 63-64 Publications of the National Council and the American Association for the Advancement of Science concerning the relationship of fluorides to dental health and general health appeared as early as 1942 and as recently as 1968. 4-40-65-70

The accumulated dental, medical, and public health evidence concerning fluoridation has been reviewed and judged at various times by committees of experts and special councils of most of the world's major national health organizations. Their findings and conclusions are public information. 71-72

In several of the more than 30 other countries where fluoridation is practiced or planned, commissions have been appointed to obtain and review all information relevant to fluoridation and to make recommendations according to their findings. Some of these commissions made special efforts to seek out and consider the statements of both professional and lay critics of fluoridation. Such commissions reported to their respective governments in Great Britain in 1952 and 1962; in Canada in 1955 and 1961; in New Zealand in 1957; in Australia in 1954, 1963, and 1968; in Ireland in 1960; in South Africa in 1966; and in Norway in 1968. 73-83 In July 1969, the delegates to the World Health Organization of the United Nations, meeting as a body, considered the Director General's evaluatory report on water fluoridation. 84 They approved a resolution, co-sponsored by 37 nations, that embodied their findings and recommendations, which, like those of the other commissions, supported and encouraged fluoridation of community water supplies. 85

The impressive body of information available concerning community water fluoridation and fluorides is constantly increasing and continues to support the validity of community water fluoridation as a safe and effective public health measure. 86 There is no evidential basis for questioning the medical safety, effectiveness, and practicality of community water fluoridation as a public health measure for preventing dental caries.


8 U. S. Public Health Service, National Institutes of Health, Division of Dental Health: "Relationship of air pollution to community water fluoridation," CPB-10, September 1969.


13 U. S. Public Health Service, National Institutes of Health, Division of Dental Health: "Natural fluoride content of community water supplies, 1969," Bethesda, Maryland.


American Institute of Nutrition: Resolution on fluoride adopted at the annual meeting April 15, 1966 (See in reference 72).


60 "National Institute of Dental Research celebrates twentieth anniversary with report on oral health research," The NIH Record, June II, 1968, National Institutes of Health, Bethesda, Maryland.


81 Department of Health, Ireland: Reports made by the Minister of Health and the various local health authorities to the Oireachtas concerning the Health (Fluoridation of Water Supplies) Act of 1960, Department of Health, Dublin.


84 World Health Organization: "Fluoridation and dental health," World Health Organization Chronicle 23 - - -


Errata

The following typographical errors appear in the preceding testimony as printed:

page 2 - 49-48 should be 46-48
page 5 - 16 edemic should be endemic
page 8 - 58 Sumnicht should be Sumnicht
page 9 - 67 fluorilation should be fluoridation
page 9 - 73 Stationary should be Stationery
page 10 - 84 23 - - - should be 23:502-512, November 1969.