

REPORT 3 OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH (A-12)
Safety of Bottled Water
(Resolution 420-A-11)
(Reference Committee D)

EXECUTIVE SUMMARY

Objective. To evaluate and summarize existing data on the safety of bottled water and the public health impact of changes in water consumption patterns, including fluoride intake.

Methods. English-language reports were selected from a PubMed search of the literature from 1995 to March 2012 using the MeSH terms “drinking water,” “fresh water,” “water supply,” or “water pollutants,” combined with the terms “analysis,” “standards,” “chemistry,” “toxicity,” “government regulation,” “maximum allowable concentration,” “consumer satisfaction/attitude,” “disease outbreaks,” and “environmental exposure.” A similar search was conducted using the MeSH terms “fluorides or fluoridation/analysis,” combined with “dental caries,” and “epidemiology,” “etiology,” “prevention and control” and the text term “bottled water.” Additional articles were identified by manual review of the references cited in these publications. Further information was obtained from the Internet sites of the US Environmental Protection Agency, US Food and Drug Administration, General Accountability Office, National Resources Defense Council, Environmental Working Group, International Bottled Water Association, Beverage Marketing Corporation, and the Drinking Water Research Foundation.

Results. Per capita consumption of bottled water in the US has more than doubled since 1997. The FDA regulates bottled water that is sold in interstate commerce as a packaged food product, but has increasingly contracted with state agencies to conduct inspections of bottled water facilities. Oversight of imported bottled water is accomplished according to the same protocol that governs food imports. FDA’s quality standards for bottled water are identical to the Environmental Protection Agency’s maximum contaminant levels for municipal water in most instances, and the FDA recently adopted standards for coliform bacteria. By most accounts, bottled water at the source is of high quality; however, only periodic analytical testing is required and formal testing requirements of stored bottled water do not exist. The majority of plastic water bottles are not recycled, and most bottled water lacks sufficient fluoride to prevent tooth decay. Nevertheless, limited data suggest that reliance on bottled water for hydration is not associated with promotion of dental caries.

Conclusion. Public drinking water and bottled water are both regulated extensively. The relevant quality standards for bottled water are as stringent as those for tap water. The oversight and safety of public drinking water in the US is of such high quality that in the vast majority of cases little medical need exists for the public to choose bottled water over public drinking water other than convenience and social habit. The advantages of most municipal drinking water sources include fluoridation to reduce dental caries and a lack of environmental pollution from plastic beverage containers. Although bottled water is generally no healthier or safer than most tap water, consumers are paying 1000-2000 times the cost of tap water to obtain bottled water, which in many cases is simply municipal water that has been subject to additional treatment. Consumers also could benefit from a more transparent reporting of bottled water quality reports that are available in an easily accessible format. With lessons learned from dietary exposure to bisphenol A, the FDA should be cognizant of how plastic resins and packaging can contaminate beverages with chemicals. Because the majority of commercial bottled water is low in fluoride, a potential exists

for an increase in dental caries in children and adolescents; however, evidence is lacking that reliance on bottled water, in and of itself, increases tooth decay.

REPORT OF THE COUNCIL ON SCIENCE AND PUBLIC HEALTH

CSAPH Report 3-A-12

Subject: Safety of Bottled Water
(Resolution 420, A-11)

Presented by: Lee R. Morisy, MD, Chair

Referred to: Reference Committee D
(John P. Evans, MD, Chair)

1 Resolution 420-A-11 “Public Health Concerns with Safety of Bottled Water,” introduced by the
2 American Association of Public Health Physicians and referred to the Board of Trustees, asks:

3
4 That in order to protect the public from further dental caries and gum disease, our American
5 Medical Association publicly call for immediate action on the part of the bottled water industry
6 to bring up the level of fluoride in their water to the same level as required in the community
7 where bottles are filled and that information be placed on the label along with the original
8 source of water in plain English, and
9

10 The AMA Board ask its Council on Science and Public Health for a timely study of various
11 public health concerns that arise from bottled water and recommendations to make bottled
12 water safer and consumers better informed with report back at the A-2012 meeting of the AMA
13 House of Delegates.
14

15 Current AMA policy supports federal regulation and appropriate labeling of the chemical content
16 of commercially bottled water, as well as partnership with the American Dental Association to
17 promote the availability of fluoridated bottled water to consumers (Policy D-440.999, AMA Policy
18 Database). AMA Policy also supports a comprehensive program of fluoridation of all public water
19 supplies that are fluoride-deficient based on current standards (Policy H-440.972).
20

21 METHODS
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23 English-language reports were selected from a PubMed search of the literature from 1995 to March
24 2012 using the MeSH terms “drinking water,” “fresh water,” “water supply,” or “water pollutants,”
25 combined with the terms “analysis,” “standards,” “chemistry,” “toxicity,” “government
26 regulation,” “maximum allowable concentration,” “consumer satisfaction/attitude,” “disease
27 outbreaks,” and “environmental exposure.” A similar search was conducted using the MeSH terms
28 “fluorides or fluoridation/analysis,” combined with “dental caries,” and “epidemiology,”
29 “etiology,” “prevention and control” and the text term “bottled water.” Additional articles were
30 identified by manual review of the references cited in these publications. Further information was
31 obtained from the Internet sites of the US Environmental Protection Agency (EPA), US Food and
32 Drug Administration (FDA), General Accountability Office (GAO), National Resources Defense
33 Council, Environmental Working Group, International Bottled Water Association, Beverage
34 Marketing Corporation, and the Drinking Water Research Foundation.

1 BACKGROUND

2
3 The per capita consumption of bottled water in the United States more than doubled from 13.4
4 gallons per person in 1997 to 29.3 gallons per person in 2007.¹ With the onset of the economic
5 recession, domestic bottled water consumption declined in 2008 and 2009 but resumed its growth
6 in 2010 reaching a new high of 8.75 billion gallons in 2010.² The top three bottled water
7 companies in the United States are Nestle Waters North America, Coca-Cola, and PepsiCo.² More
8 than 95% of bottled water consumed in the US is noncarbonated, and the majority of plastic bottles
9 used for bottled water are constructed from the resin polyethylene terephthalate (PET or PETE),
10 which also is used in the packaging of other food products and cosmetics.^{1,2} Individuals who have
11 largely replaced municipal tap water with bottled water for consumption believe that bottled water
12 is safer and healthier than tap water; taste preference and convenience also play a role in
13 consumer's decisions to forgo reliance on tap water.³⁻⁹

14
15 With the surge in bottled water consumption, the regulatory framework for manufacturing and the
16 quality and safety of bottled water have been scrutinized. Questions also have been raised about
17 labeling and whether consumers are adequately informed about the source and treatment of bottled
18 water. Environmental issues related to energy consumption, recycling, and groundwater extraction
19 also exist. These issues were recently examined in a report commissioned by the General
20 Accounting Office.¹ Finally, as more consumers turn to bottled water and parents substitute bottled
21 water for tap water for their children, the beneficial effects of drinking fluoridated tap water in
22 reducing tooth decay may be lost.

24 REGULATION OF WATER FOR CONSUMPTION

25
26 In the United States, bottled water is regulated by the Food and Drug Administration (FDA) as a
27 food under the Federal, Food, Drug, and Cosmetic Act (FFDCA).¹⁰⁻¹² The Environmental
28 Protection Agency (EPA) regulates tap water, also referred to as municipal water or public drinking
29 water, under the Safe Drinking Water Act.¹³ Because the increase in bottled water consumption
30 has been fueled by perceptions that bottled water is safer and healthier than tap water, some
31 attention has been devoted to how both sources are regulated, as well as their relative quality and
32 safety requirements.

34 *Tap Water*

35
36 In the US about 30% of all people get their tap water from ground water sources, and about 70% of
37 people get their tap water from surface water sources. More than 97 percent of the nation's
38 157,000 public water systems serve fewer than 10,000 people, and more than 80 percent of these
39 systems serve fewer than 500 people.¹⁴

40
41 The Safe Drinking Water Act establishes national regulations to control the level of contaminants
42 (known or anticipated to occur) in drinking water; standards reflect maximum contaminant levels.
43 When it is not economically or technically feasible to set a maximum contaminant level, the EPA
44 creates a required "treatment technique" which specifies how the water should be treated to remove
45 contaminants (e.g., viruses, bacteria, protozoa, certain chemicals). The EPA also requires that
46 public water systems provide annual drinking water quality reports to consumers.

47
48 States can assume primary enforcement responsibility for public water systems if they adopt
49 regulations that are at least as stringent as the EPA's primary drinking water regulations. In so
50 doing, states must: (1) establish statutory or regulatory enforcement authority to compel
51 compliance with national quality standards; (2) maintain an inventory of public water systems

1 operating in the state; (3) have a systematic program for conducting sanitary surveys of public
2 water systems; and (4) establish a certification program for laboratories that conduct analytical
3 measurements for annual consumer reports. Although such states are responsible for inspecting
4 their public water systems, they do so under regional EPA oversight subject to (at least) annual
5 review.

6 7 *Bottled Water*

8
9 The FDA regulates bottled water that is sold in interstate commerce as a packaged food product.
10 Bottled water packaged and sold within the same state is not covered by these regulations and must
11 be regulated at the state level. For bottled water sold in interstate commerce, FDA applies the same
12 statutory and regulatory provisions applicable to all packaged food and beverage products. The
13 general requirements for food labeling include ingredient and nutrition information, as well as
14 product name, name and address of manufacturer, packer, or distributor and the net contents.¹⁵
15 Some states require additional information regarding the water source and treatments applied to the
16 bottled water. Regulations specific to bottled water under 21 CFR address definitions, identity
17 standards, quality standards, and good manufacturing practices.¹⁰⁻¹²

18
19 Definitions and identity standards. Bottled water is “water that is intended for human consumption
20 and that is sealed in bottles or other containers with no added ingredients except that it may
21 optionally contain safe and suitable antimicrobial agents.” Fluoride may be optionally added (see
22 below) within the limitations established in 165.110(b)(4)(ii). In addition to the terms “bottled
23 water” and “drinking water,” several other identity designations are allowed on the label based on
24 the water source and process (see Table). The FDA’s definition of bottled water exempts many
25 types of bottled water (i.e., carbonated water, seltzer water, soda water, or tonic water) from federal
26 regulations.

27
28 Quality standards. Federal regulations (21 CFR § 165) create quality standards that establish limits
29 for chemical, microbiological, physical, and radioactive substances for the finished bottle water
30 product. FDA’s quality standards for bottled water must be “no less stringent” than EPA’s
31 corresponding maximum contaminant level for tap water.¹⁶ These regulations establish enforceable
32 quantifiable limits for 91 microbiological, physical, chemical, and radiological substances. For a
33 list of such contaminants see 21 CFR § 165(110);¹⁷ for side-by side comparisons with the
34 maximum contaminant levels for tap water see the GAO report or a publication offered by the
35 Drinking Water Research Foundation.¹⁸ If the EPA changes or establishes a new maximum
36 contaminant level, the FDA is obligated to follow suit within 180 days or publish its rationale for
37 not doing so. If the FDA fails to do so, then the EPA regulation becomes applicable to the quality
38 standards for bottled water.

39
40 Good manufacturing practices (GMP). GMPs address protection of the water source from
41 contamination, sanitation at the bottling facility, manufacturing production and process controls,
42 and sampling and testing requirements for contaminants. States or localities are responsible for
43 approving sources of water.

44
45 The FDA inspects domestic bottling plants for filling, capping, sealing, washing, and sanitizing
46 operations; verifies use of approved water sources; checks labels for compliance; and also requires
47 the bottlers to test their source and bottled water periodically. According to the GAO, the FDA has
48 increasingly contracted with state agencies to conduct inspections; states now conduct about 70%
49 of all inspections, but state-based agreements to obtain analytical results may be lacking.¹

1 Many states have enacted their own laws and regulations addressing bottled water through state
2 environmental, food, or agricultural agencies, some of which (e.g., California) are more stringent
3 than federal regulations. However, in contrast to the federal regulatory authority embedded in the
4 Safe Water Drinking Act, which establishes regional EPA oversight of state-based activities, the
5 FDA lacks similar statutory authority to ensure state compliance with national quality standards.
6 According to the GAO, most but not all states require use of a certified laboratory for
7 microbiological tests on bottled water, but approximately 40% of states do not require that bottled
8 water quality tests or violations be reported.¹

9 10 *Imported Bottled Water*

11
12 FDA oversight of imported bottled water was described in the GAO Report as “limited” but is
13 accomplished according to the same protocol that governs food imports. That process involves
14 review of scheduled imports, transmission of information to the US Customs and Border Protection
15 database, and electronic screening of these entries for terrorism and serious health risk-related
16 concerns. Electronic review either allows the import to proceed or flags the product for inspection.
17 More than 95% of bottled water and 99% of spring or mineral water imports escape any further
18 review.¹ Since 2004, only one import alert has been issued for bottled water.¹

19 20 *Industry Driven Standards*

21
22 In addition to federal and state regulations and requirements for bottled water, industry standards
23 have been established by the International Bottled Water Association (IBWA).¹⁹ The IBWA Code
24 of Practice is a set of self-regulating industry standards. The Code of Practice establishes a
25 comprehensive set of standards for bottler members that address product quality, GMPs and
26 operational requirements, source water monitoring, finished product monitoring, and labeling.
27 Some of the IBWA’s water quality standards are more stringent than federal requirements.

28
29 According to IBWA, its membership includes about 80 percent of the bottled water manufacturers
30 in the United States, although two of the largest manufacturers (Coca-Cola and PepsiCo) are not
31 members. To be a member, IBWA requires bottled water facilities to undergo an annual plant
32 inspection, conducted by an independent third-party organization. Conforming to the technical and
33 regulatory requirements of the Code may be a “valuable tool for the company’s promotional
34 activities.”²¹ The Code also establishes standards to ensure a secure facility. Such security
35 standards are not required by FDA for bottled water facilities, but the agency has published
36 guidance on this topic.²⁰

37 38 REGULATORY DIFFERENCES THAT IMPACT BOTTLED WATER

39
40 FDA’s quality standards are identical to the EPA’s maximum contaminant levels in most instances.
41 The EPA has standards in place for various treatment techniques to eliminate certain infectious
42 agents (i.e., viruses, *Cryptosporidium*, *Giardia*, *Legionella*), certain organic chemicals, and
43 asbestos; the FDA has not adopted these standards but has issued an explanation for not doing so.
44 For example, FDA has not set a standard of quality for bottled water for the infectious organisms
45 noted above because they are only found in surface water or groundwater sources under the direct
46 influence of surface water. Bottled water groundwater sources are not permitted to be under the
47 direct influence of surface water (i.e., in contact with the atmosphere).¹¹

48
49 The FDA, on the other hand, has quality standards that are more stringent than EPA for lead,
50 copper, nickel, and total phenols. With the FDA’s final rule requiring bottled water manufacturers
51 to test weekly for coliform organisms at both the source and in finished products (except for bottled

1 water derived from municipal sources), any bottled water containing *E. coli* now is considered
2 misbranded, and water sources containing *E. coli* are not considered to be safe.²¹ The FDA also
3 recently adopted a final rule on a quality standard for di(2-ethylhexyl)phthalate (DEHP) that adopts
4 the EPA maximum contaminant level.²² The lack of a DEHP standard and a zero tolerance policy
5 for *E. coli* had been the source of ongoing criticism.

6 *Safety and Quality of Bottled Water*

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8
9 A comprehensive analysis of federal and state regulations affecting bottled water and random
10 chemical analyses of bottled water samples by the National Resources Defense Council in 1999
11 raised some concerns about regulatory gaps, as well as contaminants (including bacteria) that might
12 appear in bottled water.²³ However, the majority of samples tested were of high quality and the
13 “levels of synthetic organic and inorganic chemicals of concern (which were tested) were either
14 below detection limits or well below all applicable standards.”^{23,24} Similar concerns also were
15 raised by the Environmental Working Group which analyzed contaminants in 10 major bottled
16 water brands.²⁵ Also attention has been devoted to possible leaching of substances, including
17 phthalates, endocrine disruptors, antimony from plastic resins used to construct the containers for
18 bottled water, and arsenic concentrations in spring water.²⁶⁻³¹ Bottlers are not required to test water
19 after storage, nor are they required to list the bottling dates for their water. Other independent
20 studies, some from Europe, generally found that bottled water samples were safe and free of
21 serious contamination.³²⁻³⁷

22
23 Despite these types of periodic analyses, the Drinking Water Research Foundation claims that
24 “according to FDA records, over the past 20 years, there have been only 6 Class I recalls of bottled
25 water; 5 for extreme levels of arsenic in imported product from one foreign company and 1 for
26 misbranding of isopropyl alcohol as purified water.” In addition there have been approximately
27 50-60 Class II and Class III recalls.¹⁸ Class II recalls imply that an adverse effect is temporary or
28 medically reversible and Class III recalls imply that exposure is not likely to cause adverse health
29 effects. Accordingly, the FDA places a low priority on enforcement and compliance activities with
30 respect to the bottled water industry. In contrast, 36 disease outbreaks associated with public
31 drinking water (including 3 deaths) were reported to the CDC in 2007-2008, mostly from bacterial,
32 viral, or parasitic contamination.³⁸ Approximately 60% of these involved contamination in the
33 source water, treatment facility, or distribution system. Additionally, the EPA recorded more than
34 11,000 violations of maximum contaminant levels involving more than 5,000 public water systems
35 in 2010.¹⁸ When comparing these relative values, it is important to keep in mind that the EPA
36 requires mandatory reporting when a maximum contaminant level is breached, and testing is much
37 more frequent. Also, a publicly available database of ongoing water quality reports for bottled
38 water companies is not available. Finally, the number of contamination events is a vanishingly
39 small percentage of annual exposures given that municipal water supplies directly serve more than
40 280 million individuals accessing more than 80 million residential customer connections.³⁹

41 *Environmental Concerns*

42
43
44 Using customers in the city of Los Angeles as the destination, the average energy cost of creating
45 and transporting 1 L of bottled water is 1000-2000 fold higher than tap water.⁴⁰ The plastic
46 container for most bottled water is PETE, which also is commonly used to package other food
47 products, cosmetics, and house-hold cleaners. The majority of such plastic bottles appear to be
48 discarded rather than recycled, but overall they represent a small fraction of the total discarded US
49 solid municipal waste (<1%). PETE is relatively inert, but the recycling rate of such plastic bottles
50 needs to be improved. Some companies have voluntarily changed the composition and shape of
51 their bottles to require the use of less plastic. The GAO concluded that “groundwater extraction for

1 bottled water is small relative to groundwater withdrawals for other uses, but can have noticeable
2 local impacts, leading some states to enact new or amended requirements for extracting
3 groundwater for bottled water.”^{1,41,42}

4 5 FLUORIDATION OF WATER

6
7 Water fluoridation is a community-based intervention that optimizes the level of fluoride in
8 drinking water, resulting in preeruptive and posteruptive protection of the teeth.⁴³ The United
9 States Department of Health and Human Services has a pending recommendation for the optimal
10 level of fluoride in tap water at 0.7 ppm (1 ppm = 1 mg/L). This concentration effectively reduces
11 tooth decay while minimizing the occurrence of dental fluorosis. More than two-thirds of US
12 communities are served by public water systems that are optimally fluoridated. The EPA’s
13 maximum contaminant level for fluoride is 4 mg/L (4 ppm); any community water supply that
14 exceeds 2 mg/L is required to alert consumers. Earlier studies revealed that water fluoridation
15 reduces the amount of cavities in baby teeth as much as 60% and cavities in adult permanent teeth
16 by 35%.^{44,45} Currently, community water fluoridation reduces dental carries 20-40% even with the
17 availability of other fluoride sources such as topical fluoride or fluoride-supplemented
18 toothpaste.^{44,46}

19
20 All ground and surface water in the US contains some naturally occurring fluoride. The FDA
21 requires that the fluoride content of bottled water be identified only if fluoride is added to the water
22 during processing. Bottled water quality standards allows for a range of fluoride concentrations
23 (1.4 to 2.4 mg/L) depending on average annual maximum temperature at locations where the
24 bottled water is sold. Variability in air temperature is deemed important for overall fluoride
25 exposure because people who live in warm climates tend to drink more water (and thus more
26 fluoride) than those who live in cold climates. Imports are limited to a maximum of 1.4 mg/L.
27 Bottled water that contains added fluoride is limited to a range of 0.8 to 1.7 mg/L, with imports
28 restricted to the lower limit of this range. Ninety to ninety-seven percent of bottled water that has
29 been randomly tested contains less than optimal amounts of fluoride for prevention of tooth decay,
30 although some mineral waters have sufficient fluoride concentrations, and some may exceed
31 optimal levels.⁴⁷⁻⁵⁰ Most consumers are not knowledgeable about fluoride in drinking water.⁵¹

32
33 While it is intuitive that drinking bottled water to the exclusion of tap water would increase caries
34 incidence, few clinical investigations have been conducted to directly evaluate this hypothesis. In a
35 secondary analysis of participants in the Iowa Fluoride Study, bottled water users had significantly
36 lower fluoride intake, but no significant differences were found in either permanent tooth caries or
37 primary second molar caries.⁵² The power of this study was limited by the fact that only 10% of the
38 participants drank bottled water. An Australian study found a significant positive relationship
39 between deciduous caries experience and consumption of bottled water only for children with
40 100% lifetime availability of fluoridated water; the effect of consumption of nonpublic water on
41 permanent caries experience was not significant.⁵³

42 43 *American Dental Association Policy*

44
45 In order to ensure optimal fluoride intake, the American Dental Association (ADA) urges its
46 members to educate their patients regarding the level of fluoride in bottled water and inquire about
47 their patients’ primary and secondary water source as part of the health history.⁵⁴ The ADA also
48 supports the labeling of bottled water with the fluoride concentration of the product and has
49 guidelines for its acceptance in place for applying its Seal of Acceptance to bottled water products
50 with fluoride concentrations in the optimal range for prevention of tooth decay.⁵⁴

1 *American Academy of Pediatrics*

2

3 In their policy statement regarding “preventive oral health interventions for pediatricians,” the AAP
4 notes that secondary preventive strategies are “hierarchical and (currently) consist of dietary
5 counseling, oral hygiene instruction, and judicious administration of fluoride modalities.”⁵⁵ AAP
6 policy is silent on the issued of bottled water and caries prevention.

7

8 DISCUSSION

9

10 Public drinking water and bottled water are both regulated extensively. The FFDCA requires the
11 FDA to regulate bottled water as a food, as opposed to public drinking water subject to the Safe
12 Water Drinking Act. Because bottled water has had a relatively good safety record over the years,
13 bottled water facilities are generally assigned a low priority for inspection. Resource constraints
14 and the lack of statutory authority to mandate use of certified laboratories or require the reporting
15 of quality violations also contribute to this practice. In fact, the quality standards for bottled water
16 are as stringent as those for tap water. Where the EPA requires the use treatment techniques, the
17 FDA has explained why these are not necessary for bottled water.

18

19 The oversight and safety of public drinking water in the US is of such high quality that in the vast
20 majority of cases little medical need exists for the public to choose bottled water over public
21 drinking water other than convenience and social habit. The advantages of most municipal
22 drinking water sources include fluoridation to reduce dental caries and a lack of environmental
23 pollution from plastic beverage containers. Additionally, although most data suggest that bottled
24 water is generally no healthier or safer than most tap water, consumers are paying 1000-2000 times
25 the cost of tap water to obtain bottled water, which in many cases is simply municipal water that
26 has been subject to additional treatment. Consumers also could benefit from a more transparent
27 reporting of bottled water quality reports that are available in an easily accessible format.

28

29 Little is known about the effects of temperature and storage on the potential leaching of substances
30 from the plastic resins used to construct water bottles; more information should be developed
31 regarding potential changes in contaminant levels at the point of consumption. With lessons
32 learned from dietary exposure to bisphenol A, the FDA should be cognizant of how plastic resins
33 and packaging can contaminate beverages with chemicals.

34

35 Because the majority of commercial bottled water is low in fluoride, a potential exists for an
36 increase in dental caries in children and adolescents. By initiating communication with parents and
37 educating them about appropriate preventive strategies including dietary counseling and fluoride
38 sources, health care and dental providers may be able to better evaluate the adequacy of children’s
39 fluoride exposure and decide whether fluoride supplementation is necessary. To assist in this
40 process, the fluoride content of bottled water should be clearly labeled. Currently there is a lack of
41 evidence that reliance on bottled water, in and of itself, increases tooth decay.

42

43 RECOMMENDATION

44

45 The Council on Science and Public Health recommends that the following statement be adopted in
46 lieu of Resolution 420-A-11:

47

48 That D-440.999, Chemical Analysis Report of Public and Commercial Water, be amended by
49 insertion and deletion to read as follows:

1 Our AMA: (1) requests the appropriate federal agency to require analysis and appropriate labeling
2 of the chemical content, including fluoride, of commercially bottled water, as well as of the water
3 supplies of cities or towns; (2) ~~will work with the American Dental Association to promote the~~
4 ~~availability of fluoridated, commercially bottled water to consumers.~~ urges the FDA to require that
5 annual water quality reports from bottled water manufacturers be publicly accessible in a readily
6 available format; and (3) urges the FDA to evaluate bottled water for changes in quality after
7 typical storage conditions. (Modify Current HOD Policy)

Fiscal Note: Less than \$500

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Table. Identity Definition of Bottled Water^a

| Name | Definition/Nomenclature |
|------------------------------|--|
| Artesian/Artesian well water | Water from a well tapping a confined aquifer in which the water level stands at some height above the top of the aquifer. |
| Mineral water | Water containing not less than 250 parts per million (ppm) total dissolved solids (TDS), coming from a source tapped at one or more bore holes or springs, originating from a geologically and physically protected underground water source. |
| Purified water | Water that has been produced by distillation, deionization, or reverse osmosis. This water is intended to be essentially free of chemicals (<10 parts/billion) and may also be free of microbes if treated by distillation or reverse osmosis. Alternatively, the terms “deionized,” “distilled,” or “reverse osmosis water” or drinking water may be used on the label. |
| Sparkling bottled water | Water that, after treatment and possible replacement of carbon dioxide, contains the same amount of carbon dioxide from the source that it had at emergence from the source. |
| Spring water | Water derived from an underground formation from which water flows naturally to the surface of the earth. |
| Well water | Water from a hole bored, drilled, or otherwise constructed in the ground which taps the water of an aquifer. |
| Sterile or Sterilized water | Water that meets the requirements under “Sterility Tests” in the United States Pharmacopeia (free of all microbes). |
| Ground water | Water from a subsurface saturated zone that is under a pressure equal to or greater than atmospheric pressure but not under the influence of surface water (open to the atmosphere). |

^aWhen bottled water comes from a community water system, except when it has been treated to meet the definitions “purified water” or “sterilized water” and is labeled as such, the label shall state “from a community water system” or, alternatively, “from a municipal source” as appropriate, on the principal display panel or panels.