

1 **Resolution Number:** 402-2025

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3 **Title:** Addressing Climate Change and Sustainability in Dentistry through Dental Education and
4 Practice

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6 **Reference Committee Assignment:** Professional Issues and Governance

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8 **Sponsor(s):**

9 Bree Zhang, Council on Advocacy Chair, Columbia '27

10 Ansen Zhi-Han Lai, ASDA District 11 Events Director, UCSF 2026

11 Adam Yang, Alternate Delegate, Harvard

12 Jessica Gomez, District 8 Advocacy Chair, U 'Iowa

13 Pari Thakkar, Penn Advocacy Co-Chair, Penn '26

14 Utsavi Kapadia, Tufts '27

15 Ashley Sapra, Second Delegate, New England '26

16 Christine Park, Columbia '28

17 Pooneh Khazaeipool, District 2 Chief of Staff, NYU '25

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19 **Financial Impact:** None

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21 **Board of Trustees Comments:** The Board acknowledges the need to address this important
22 issue and appreciates the authors for bringing the resolution forward. The Board would like to
23 ensure each resolving clause is reviewed in detail so the official ASDA policy aligns with the
24 intended goals of the resolution and can remain relevant as advances in dental practice and
25 technologies occur. Therefore, the Board recommends referring this resolution to the 2025-26
26 Council on Advocacy to study further and report back to the 2026 House of Delegates.

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28 **Reference Committee Comments:**

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30 **Background:** The World Health Organization considers climate change the biggest health threat
31 facing humanity. Research indicates that 3.6 billion people already live in areas highly
32 susceptible to climate change.¹ US health sector is the world's number one emitter of
33 greenhouse gasses in both absolute and per capita terms,² contributing to almost 10% of US
34 greenhouse gas emissions.³ Dentistry contributes approximately 3% of the 10% carbon
35 footprint that healthcare creates annually in the United States.⁴

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37 Climate change and other anthropogenic environmental changes have profound implications
38 for both general and oral health, including, but not limited to, increased prevalence of heat-
39 related illnesses, extreme weather-related injuries, air pollution-related respiratory conditions,
40 and water- and food-borne diseases.⁵

¹ <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

² https://global.noharm.org/sites/default/files/documents-files/5961/HealthCaresClimateFootprint_092319.pdf

³ Eckelman MJ, Huang K, Lagasse R, Senay E, Dubrow R, Sherman JD. Health Care Pollution And Public Health Damage In The United States: An Update. *Health Aff (Millwood)*. 2020;39(12):2071-2079. doi:10.1377/hlthaff.2020.01247

⁴ Batsford H, Shah S, Wilson GJ. A changing climate and the dental profession. *Br Dent J*. 2022;232(9):603-606. doi:10.1038/s41415-022-4202-1

⁵ Hackley D. M. (2021). Climate Change and Oral Health. *International dental journal*, 71(3), 173–177. <https://doi.org/10.1111/idj.12628>

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42 Dental education and practice play a crucial role in addressing the environmental impacts of
43 healthcare and preparing future oral healthcare professionals to mitigate and adapt to climate
44 change and anthropogenic environmental changes on health challenges; therefore, be it
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46 RESOLUTION

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48 **Resolved**, that the following statements be added to ASDA’s Current Statements of Position or
49 Policy under section “Other Issues” as a new section N-3:

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51 **Resolved**, that ASDA encourages dental schools to incorporate programs and curricula that
52 educate students on the impacts of climate change on oral health and the dental workforce,
53 addressing topics including, but not limited to:

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- 55 • Heat stress and its effects on patient care, workforce productivity, antibiotics and
56 medication longevity.
 - 57 • Extreme weather events and their implications for access to care and infrastructure.
 - 58 • Air pollution and its connection to oral and systemic diseases.
 - 59 • Water-borne illnesses affecting community oral health.
 - 60 • Food and water insecurity contributing to malnutrition and oral health disparities.
 - 61 • Migration and displacement caused by climate change and their effects on patient
62 demographics and oral healthcare delivery.

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64 **Resolved**, that ASDA encourages dental schools to incorporate programs and curricula that
65 develop and implement sustainability-focused education and research including, but not limited
66 to:

- 67 • Education on the procurement of environmentally responsible and ethically sourced
68 dental supplies.
- 69 • Minimally invasive dentistry practices that reduce material usage and environmental
70 impact.
- 71 • Development of frameworks for sustainable water management in dental practices,
72 including water-efficient equipment and processes.
- 73 • Education on the environmental impact of dental materials, including the ecological
74 effects of nitrous oxide, other inhalation anesthetics (e.g., sevoflurane, desflurane), and
75 resin-based composites with strategies to minimize their footprint and reduce
76 microparticle pollution.
- 77 • Best practices for reducing waste and promoting environmentally responsible disposal
78 of dental materials.
- 79 • Integration of digital dentistry to support sustainable practices, including but not limited
80 to paperless systems, 3D printing technologies, and energy-efficient workflows to
81 conserve energy and resources.
- 82 • Exploration of alternative energy sources, energy-efficient technologies, green building
83 practices in dental school facilities, clinics, and dental office operations.

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85 **Resolved**, that ASDA supports policies and practices that reduce the carbon footprint of dental
86 care delivery.

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88 **Resolved,** that ASDA supports policies and education on incorporating sustainable dental
89 materials, digital tools, and energy-efficient methods into post-graduate practice.

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91 **Resolved,** that ASDA promotes sustainable travel options for educational and professional
92 activities.

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94 **Resolved,** that ASDA commits to advocating for sustainable practices in dentistry at the
95 institutional, local, and national levels alongside relevant stakeholders.

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97 **Resolved,** that ASDA commits to collaborating with sustainable partners to reduce
98 environmental impacts at events, conferences, and other professional activities.

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100 **Resolved,** that ASDA encourages dental practitioners and students to actively engage with and
101 support surrounding communities disproportionately affected by environmental threats to
102 promote climate resilience and health equity.

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104 **Action:**