



1. Sustainable venue.

The availability of convention and conference centers with sustainability programs is increasing every year. A 2017 <u>global survey</u> of 66 green venues found 86 percent achieved a sustainability-related certification through a variety of programs.

• APHA looks for conference venues that are energy efficient and use renewable power like wind and solar on site or through the local utility.

Reducing electricity use reduces operating costs, avoids greenhouse gas emissions and reduces a facility's contribution to air pollution caused by power plants. Electricity is responsible for 29 percent of total U.S. greenhouse gas emissions. Coal power plants generate <u>34 percent of electricity</u> in the U.S. while accounting for <u>70 percent of</u> the sector's greenhouse gas emissions. Replacing all coal-fired power generation with solar energy would avoid \sim 52,000 premature deaths in the U.S. Every kilowatt hour of avoided coal-powered electricity reduces CO₂ equivalent emissions by 30 tons (calculated) and reduces health-related costs such as premature mortality by 32 cents.¹

• By providing easy-to-access public transportation, bike storage, on-site electric vehicle charging stations and employee incentives, facilities can significantly reduce commute-related air quality issues.

For example, in Atlanta where APHA held its 2017 Annual Meeting, city-wide support for public transit during the 1996 Atlanta Olympic games resulted in a 40 percent reduction in asthma acute care events among Medicaid recipients and an almost 30 percent reduction in peak daily ozone concentrations.²

 APHA looks for venues that divert waste from landfills and avoid non-compostible materials like plastics. This includes composting all food waste from food service operations, as well as a proportion of compostable non-food waste — such as plates, cups, napkins and flatware.

Methane emissions from municipal solid waste landfills resulted in 147,975 kilotons of CO₂ equivalent emitted in the U.S. in 2016 (calculated).³ The leachate from landfills has been found to contain hundreds of chemicals, including plasticizer <u>Bisphenol A</u>, an endocrine disruptor. APHA is committed to supporting policies and practices in the built and natural environment that advance physical and mental health. Through the joint call to action. promoting healthy communities, we are working with partner organizations from the built environment sector to accelerate the implementation of health-supportive design. In the global health arena, APHA promotes <u>access to safe water</u> and sanitation for all.

Climate change is a key focus of APHA's environmental health activities.

- The policy statement "<u>Public</u> Health Opportunities to. Address the Health Effects of Climate Change" describes how #ClimateChangesHealth and how public health can reduce greenhouse gas emissions and promote resilience.
- 2017, the "Year of Climate Change and Health", aimed to increase awareness among APHA members and partners about the central role of public health to effect climate change policy and practice: in terms of both mitigation and adaptation.

This document and companion factsheets "What you can do as a health professional before and after. the annual meeting" and "What you can do at the annual meeting" share opportunities for APHA membership to enhance their environmental stewardship, reduce their carbon footprint, and learn about ways that APHA is reducing the environmental impact of the Annual Meeting.

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2.

Reducing, reusing, recycling.Reducing

- Visit the "What you can do at the annual meeting" factsheet to learn how to register for the Annual Meeting, book a hotel, decide which sessions to attend, and share your experience on social media all without printing a single piece of paper!
- The annual meeting printed program has been shortened in length to list event sessions and locations only. It is printed on FSC-certified, 30 percent post-consumer recycled paper using soy-based ink to further reduce its environmental footprint.
- Poster presenters are encouraged to use the same printing guidelines as the program.
- Reusing
 - Meeting room signs are re-used year after year to reduce waste and cost. When signs reach the end of their useful life, replacements use bio board and cloth instead of PVC.
- Recycling
 - Recycling bins are located in the registration area and throughout the convention center. Be sure to recycle your nametags, lanyards and printed programs before you head home.

Every ton of office paper avoided is equivalent to reducing 0.28 million metric tons of CO₂ equivalent, or MMTCE, emissions from the atmosphere and increasing forest carbon storage by 1.9 MMTCE.⁴ Each pound of paper recycled or composted is equivalent to not emitting three pounds of CO₂. Forests in the U.S. removed an estimated 17.4 million tons of air pollution in 2010 and avoided an estimated 850 pollution-related deaths.⁵

Reusing signage is always preferable from an environmental health perspective and avoids purchasing new signage each year. Every pound of PVC plastic that is not produced avoids emitting two pounds of CO_2 equivalent greenhouse gases.⁶ Each pound of plastic⁷ recycled or composted is equivalent to not emitting one pound of CO_2 into the atmosphere. By switching to PVC-free signage, APHA is acting in accordance with the <u>Association's policies to reduce exposure to PVC</u>. We avoid contributing to dioxin emissions that are released during the manufacturing process, as well as exposing conference attendees to phthalate plasticizers and heavy metal stabilizers like lead and cadmium once the signage is in use. Phthalates have been linked to asthma and reproductive toxicity. Lead is a neurotoxin; cadmium is a known carcinogen; and, dioxin can cause damage to the reproductive, immune and endocrine systems.

3. Promoting healthy food.

• APHA has signed the <u>healthy meetings pledge</u> & works with conference venues to provide healthy food.

Agricultural activities account for 8 percent of greenhouse gas emissions in the U.S.⁸ Purchasing local food can reduce your meal's carbon footprint by up to 11 percent⁹ and help maintain the natural balance of local nutrients¹⁰ like nitrogen and phosphorus. Organic farming increases the concentration of carbon contained in the soil¹¹ and reduces exposure to pesticides¹² among vulnerable populations such as children. Shifting to a diet emphasizing fruits, vegetables, nuts, and whole grains can lower the risk of cardiovascular disease¹³ and reduce your food-related carbon footprint by one-half.¹⁴

• Public water is made available throughout the venue.

Every 1.5 L of tap water consumed rather than bottled water saves the equivalent of 0.75 lbs of CO_2 emissions.¹⁵ Tap water is held to a stricter health standard¹⁶ and is 300 times less expensive¹⁷ than bottled water in most locations.

Proper hydration¹⁸ is necessary to support the body's metabolism, physiological and cognitive functions, thermoregulation and cardiovascular system. Roughly 50 percent of the increased caloric intake¹⁹ associated with the rise in obesity in the U.S. since the 1970s is due to consumption of sweetened beverages.

• APHA looks for venues that donate leftover food to local area food banks and compost the food waste from food service operations.

An estimated 40 percent of the U.S. food supply is wasted,²⁰ contributing to 11 percent of total municipal solid waste generation²¹ by weight. Every dry ton of food waste diverted from landfill avoids methane emissions equivalent to 1.63 metric tons of CO_2 .²² By decreasing the need for chemical fertilizers and pesticides, compost reduces the greenhouse gas emissions associated with the use of fossil fuel for their production and application.

- Donating excess food to food banks can reduce food insecurity²³ by providing necessary calories and nutrients to populations in need.
- Remember to wash your hands frequently with soap and water to prevent spread of communicable diseases. Restrooms are located throughout the venue. Bring a pocket hand sanitizer in your bag in case a restroom is not immediately accessible.



This factsheet was developed by Biositu, LLC (www.biositu.com) in collaboration with the APHA Climate and Health Topic Committee. Infographic vectors were modified from artwork designed by designxel and Freepik.



4. Green General Services & Audio Visual Contractor.

APHA works with General Services and Audio Visual Contractors to implement sustainability initiatives at the Annual Meeting such as:

- Designate a green leader for the event to oversee and document environmental initiatives in the Environmental Performance Report.
- Reduce truck idling in the loading dock. Prioritize use of electric powered scooters and lifts instead of
 combustion powered to reduce indoor air emissions.
- Institute an environmental purchasing policy prioritizing materials that reduce the event's carbon footprint.
- Install carpet, show management structures, and tabletops containing recycled content.
- Institute a recycling program in the Expo.
- Distribute an exhibitor service kit encouraging exhibitors to use environmentally friendly items and to only bring the minimum necessary for the event.
- Donate unused exhibitor materials to local charities and community groups.

While many of the general services and audio visual sustainability practices reap both environmental and health co-benefits, <u>the most significant health benefit on-site is improved</u> air quality. Eliminating the use of diesel powered equipment inside the convention center and limiting truck idling on loading docks will reduce exposure of conference staff and attendees to pollutants such as nitrous oxide, particulate matter, carbon monoxide and cancer-causing substances such as formaldehyde. In addition to cancer, the health effects associated with these substances include respiratory and cardiovascular disease. Idling trucks emit as much as 16,500 g/h of CO₂, 4 g/h of particulate matter and 375 g/h of nitrous oxide.²⁴

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