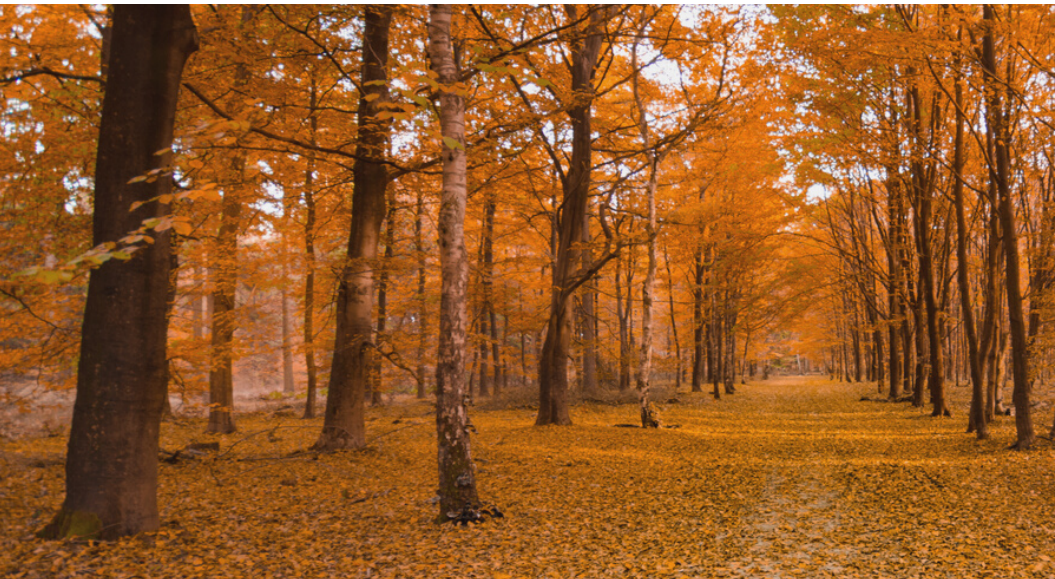


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THE PREVENTATIVE MEASURE

FALL 2022

Triannual Newsletter of the National Capital Area Environmental Health Association



2022 BOARD

In This Issue

- Page 1: Cover Page
- Page 2: President's Message
- Page 3-5: Journal Article
- Page 6: 2022 Elections
- Page 7: Announcements
- Page 8: Membership Renewal Reminder
- Page 9: Winter 2022 Educational Conference Save the Date



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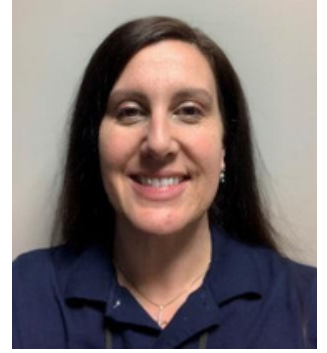
DC Representative

Amanda Barto

Industry Liaison

Caroline Friel

President's Message



Happy Holidays!

I'd like to thank all who attended our Fall Educational Conference. It was our highest attended Virtual Conference with great speakers on a variety of EH topics! I'm excited to announce that our next Educational Conference will be in-person on Monday, January 30, 2023, at the Fairlington Community Center located at 3308 S Stafford St., Arlington, VA 22206. We are in the process of putting the agenda together and seeking speakers and presentation topics. Please contact any of the board members especially, Marcella Sikon, VA Representative with your recommendations or availability.

I would like to introduce our new Industry Liaison, Caroline Friel, Quality Assurance Regulatory Compliance Manager for Wawa. She has been part of their Quality Assurance Risk and Safety team for the past 21 years. She started her career as an Environmental Health Officer in the UK, prior to moving and working as a public health officer with the City of Philadelphia Health Department before heading into Industry.

Every year we have Elections in December. This year we vote on the President, VP of Programs & Professional Advancement and VP of Membership. They are elected for two-year terms and have a term limit of two consecutive terms starting February 1, 2023. As President, I chair the Elections Committee who is comprised of myself, Marcella Sikon and Kendra Washington this year. A ballot will be sent electronically to members at least 30 days prior to our Annual Meeting that occurs during our Winter Conference. We still don't have anyone on the ballot for VP of Membership! I encourage any regular, lifetime, student, or silver member to contact me, Marcella or Kendra to get on the ballot today!!!

We are also looking for a new Director of Communications to start February 1, 2023. Any regular, lifetime, student or silver member who can produce and publish all our publications, manage our social media platforms, and maintains our list-serve. Please contact me or our current DOC, Nicole Gragasin, if interested!!

Our memberships will be expiring at the end of the year. Please renew at that time and please register to attend our Winter Educational Conference! As this is my last newsletter, I would like to say that it has been my pleasure to serve as your President and I hope to see you all January 30th!

Best regards,

Julia Balsley, NCAEHA President
NCAEHA.President@gmail.com

On the indirect environmental outcomes of COVID-19: short-term revival with futuristic long-term implications

Muhammad Irfan, Munir Ahmad, Zeeshan Fareed, Najaf Iqbal, Arshian Sharif & Haitao Wu
Pages 1271-1281 | Received 04 Dec 2020, Accepted 08 Jan 2021, Published online: 15 Jan 2021

ABSTRACT

The aim of this study is to identify and highlight the positive and negative indirect environmental impacts of COVID-19, with a particular focus on the most affected economies (USA, China, Spain, and Italy). In this respect, the empirical and theoretical dimensions of the contents of those impacts are analyzed. Research findings reveal a significant relationship between contingency actions and positive indirect impacts such as air quality improvements, clean beaches, and the decline in environmental noise. Besides, negative indirect impacts also exist, such as the rise in waste level and curtailment in recycling, further threatening the physical spaces (land and water), besides air. It is expected that global businesses will revive in the near future (though slowly), but the reduction in greenhouse gas emissions during this short time span is not a sustainable way of environmental mitigation. Thus, long-term mitigation policies should be strengthened to cope with the undesirable deterioration of the environment. Research findings provide an up-to-date glimpse of the pandemic from the perspectives of current and future indirect environmental impacts and the post-pandemic situation. Finally, it is suggested to invent and prepare action plans to induce a sustainable economic and environmental future in the post-pandemic world scenario.

INTRODUCTION

The novel coronavirus (SARS-CoV2) has produced unparalleled effects worldwide. Every country has been severely affected by this deadly virus (Razzaq et al. 2020). As of December 24th, 2020, the confirmed COVID-19 cases reached 79 M with 1.73 M deaths globally (Worldometers 2020). Governments are striving to fight against the virus by substantial diagnosis tests and launching guidelines of social distancing. The intention is to provide human health a top priority. For instance, strict social distancing actions were put into effect in the Hubei province of China at the end of 2019 (Du et al. 2020) and later implemented in almost all countries of the world. However, the Governments' guidelines around the world did not positively change the public's behavior regarding the pandemic, particularly in democratic countries. Simultaneously, the autocratic Governments such as China remained successful in shaping their people's prevention behavior (Ahmad et al. 2020). Despite this, heavily affected countries have enforced the economic shut-down measures to check the unprecedented COVID-19 outbreak.

The core economic activities of the countries have been severely influenced due to these shut-downs. Accordingly, the production facilities of industries and power plants have terminated completely. All these events dramatically lowered the intensity of particulate matter having a diameter below $2.5 \mu\text{m}$ (PM2.5) and Nitrogen Dioxide (NO₂) in the major cities of China (Chu et al. 2021). It is expected that the greenhouse gas (GHG) emissions would reduce to the lowest values during the pandemic, never realized since World War II. Air pollution is considerably reduced in other regions of the world,

especially Europe, as the governments have imposed restrictions not to leave home in order to overcome the dispersion of SARS-CoV2. Major businesses ceased their production facilities. Similarly, the use of cars, busses, public transport, and air traffic has declined, which in turn, has reduced the level of carbon emissions worldwide (Muhammad et al. 2020).

In addition, the policy of social distancing implemented by most countries has resulted in the cleaning of beaches, as tourists accumulate waste when visits the beaches (Zielinski and Botero 2020). A significant reduction in noise levels has also been observed. The decreases in commercial activities, as well as public and private transportation, are the main reasons for such reduction in noise levels. Though the novel coronavirus has positive indirect environmental impacts, it has also produced negative indirect impacts. For instance, the administrations of some cities in the USA have postponed recycling programs, as they are anxious about the recycling centers being infected with the lethal virus (Vanapalli et al. 2021). Meanwhile, the governments of the most affected European countries have restricted sustainable waste management practices. One classic example of these restrictions has been observed in Italy, where infected individuals were not allowed to sort their wastes during the peak period of pandemic (Figueroa 2020).

Several companies have grabbed the prospect to rescind disposable bag bans. Businesses that at one time inspire buyers to carry their bags have gradually swapped to single-use packing. For instance, reusable cups have been temporarily banned. As a result, the trend of online food ordering is on the move. All these activities have resulted in the expansion of

organic and inorganic domestic waste (Klemeš et al. 2020).

The current study aims to identify and highlight the positive (improvement in air quality, clean beaches, and the reduction in environmental noise) and negative (increase in waste level and curtailment in recycling) indirect environmental impacts of the novel coronavirus in the most affected countries such as USA, China, Spain, and Italy. In this regard, each indirect impact's contents are analyzed, considering both empirical and theoretical aspects. Through this content analysis, the conclusions on the critical indirect environmental impacts are extracted and discussed. This study may serve as a standalone guide for all practitioners and stakeholders to understand the indirect environmental impacts of COVID-19 and make procurement strategies accordingly. The futuristic point of view presented in this study will provide long-term implications for gaining the economic and environmental revival and preparing action plans to deal with future epidemics. Also, the indirect implication of the short-term environmental revival calls for the long-term planning regarding mitigation strategies to achieve the milestone of sustainable development goals.

Indirect positive and negative environmental impacts of the novel coronavirus

Reduced intensities of PM2.5 μm and NO₂

The quality of air is indispensable for humans' health. Conversely, most of the global population resides in areas where the quality of air is below the recommended limits. The effects of poor air quality have been exhibited in a significant proportion of universal deaths every year. The 2016 report of the World Health Organization (WHO) reveals that 8% of worldwide deaths are due to air pollution. The countries most affected belong to Asia, Africa, and some chunks of Europe (WHO 2020).

Pollution is considered as a carrier of coronavirus and works as a catalyst. Air pollutants including ozone, NO₂, and particulate matter in various fractions (PM_{2.5} µm and PM₁₀ µm) severely impact the hosts' cardio-respiratory and immune system by lowering their resistance to certain viral and bacterial infections (Fenech and Aquilina 2020). In the context of virus-related infections like SARS and MERS, the previous literature revealed that exposure to air pollution accelerates the susceptibility of lung diseases, leading to morbidity and mortality, and overall hurts public health (Magazzino et al. 2020). Abundant medical findings have exposed that heavy pollution contributes to severe health problems, including persistent obstructive pulmonary disorder, shortness of breath, scratchy throat, chronic bronchitis, and asthma, making the lungs more vulnerable to infections. These symptoms are related to those induced by COVID-19 (Kihal-Talantikite et al. 2019). Although public health has significantly improved in developing countries, the danger of global pandemics would continue due to pollution issues. The self-quarantine policy has helped China to limit the spread of COVID-19. Besides, a significant reduction in air pollution has been seen due to stringent traffic constraints. In Wuhan alone, PM_{2.5} dropped by 1.4 µg/m³, and in other 367 Chinese cities, it reduced by 18.9 µg/m³. Besides, NO₂ decreased by 22.8 µg/m³ in Wuhan and 12.9 µg/m³ in all over China (Chen et al. 2020). PM_{2.5} has declined 20–30% in major Chinese cities during February 2020, compared to February 2017, 2018, and 2019's monthly average. Reduction in air pollution and particulate matter have produced human health benefits that have exceeded the confirmed COVID-19 deaths so far alone in China (Chen et al. 2020). The Copernicus Sentinel-5 satellite of the European Space Agency gathered data of NO₂ emissions in the Chinese troposphere from 20 December 2019 to 16 March 2020.

Clean beaches

Beaches are the major attractions located along coasts. They offer a variety of services (tourism, recreation) and act as a buffer against powerful storms and high winds. Besides, they are essential for the existence of coastal society and retain core values that should be secured from overutilization (Araújo et al. 2018). Despite of having numerous benefits, many beaches all over the world have pollution issues due to the irresponsible human behaviors. Social norms are the primary reasons for such kind of behaviors (Irfan et al. 2020). Tourists' absence as a result of lockdown has resulted in a considerable alteration in the manifestation of beaches. For instance, the

beaches of Thailand, Spain, and Ecuador, now look tidier and cleaner than ever before (Tantrakarnapa et al. 2020).

Escalated waste

A variety of environmental problems, including deforestation, soil erosion, water, and air pollution are indirectly escorted by the production of organic and inorganic waste (Schanes et al. 2018). The buyers' demand for online shopping has increased due to the quarantine measures, leading to the accumulation of households' organic waste. Meanwhile, inorganic waste has also increased, as the delivery of online purchased food is mostly in packing (Jribi et al. 2020). An upsurge in the amount of medical waste has also been noticed. During the outbreak, an average daily medical waste of 240 metric tons was generated by clinics located in Wuhan, compared to the regular average day-to-day medical waste of fewer than 40 tons (Calma 2020). Similar incidents have been observed in other territories as well. For instance, the waste from individual shielding apparatus, i.e., gloves and masks, has increased manifolds during the COVID-19 pandemic (Saadat et al. 2020).

Curtailed waste recycling

An important environmental concern that has gained the world's attention is waste recycling. Recycling is commonly used to reduce pollution, conserve energy, and save natural resources. Due to the current pandemic, recycling activities have been postponed by many countries, notably the USA, as the officials are worried about the danger that the recycling hubs will catch the virus (Somani et al. 2020). Hospitals are not the only sources of contaminated waste. Municipal solid waste (MSW) has considerably increased due to the self-isolation of people at home. To tackle the rising number of infected individuals, even modern healthcare facilities have turned out to be inadequate. This requires to significantly modify the waste management approaches, from collection, sorting guidelines, and waste handling to the protection mechanism of the waste-gathering employees (Fan et al. 2021).

Personal protective equipment (PPE) including gloves, face masks, protective clothing, helmets, and other polluted waste need to be double bagged in Europe. Food containers that at one time were considered as recyclable waste now classified as hazardous waste because there is a chance of infection with pathogens. These precautionary tactics, however, accelerated plastic usage and the production of mixed waste (Prata et al. 2020). Due to these activities, the

environmental and economic problems take a back seat in the COVID-19 crisis. Also, the businesses have grabbed the prospect to revoke single-use plastic, irrespective of the fact that disposable bags still wharf bacteria and viruses (Silva et al. 2020).

Additional indirect environmental impacts

To avoid the novel COVID-19 from dispersion through wastewater, China has reinforced the disinfection practices of wastewater treatment plants (mainly by increasing the usage of chlorine). However, no evidence has been found, which supports the subsistence of SARS-CoV2 in drinking water or wastewater (Gatti et al. 2020). Conversely, chlorine's overuse would produce dangerous results on humans' health and the environment. The current pandemic has negative socio-economic impacts as well. Some socio-economic groups (poor, sick, and older) are at a higher risk of getting an infection as compared to others. Therefore, the majority of deaths are being expected from these parts of society (Bhopal 2020). It presents a totally different scenario between the pre- and post-pandemic populations.

COVID-19 post-pandemic agenda

Combating COVID-19 is an enlightening lesson for humanity, which has built a database and expertise of potential strategies to fight against worldwide pandemics, enhancing air quality, and mitigating climate change. It is clear, in the fight against the pandemic, that the joint efforts of governments, NGOs, academic organizations, healthcare workers, and the general public are necessary to contain the pandemic (Xiong et al. 2020). More specifically, scholars from related fields should contribute to the advice given to policymakers to formulate scientific verdicts, evaluate risks, give timely warnings, and raise public awareness by arranging seminars and workshops at the national level. Moreover, though, the international cooperation, in the form of the recent Paris agreement, have not contributed to any substantial steps in lowering GHG emissions (Irfan et al. 2020b); however, international efforts are respected not only in the war against COVID-19 but also in the mitigation and enhancement of air quality globally (Ching and Kajino 2020).

Human activities are dramatically impacting the atmosphere and the earth's climate structure. These climate changes in turn pose severe weather events, natural catastrophes, and risks to public health (Irfan et al. 2019). In the perspective of global warming, the appearance and the spread of different types of infectious diseases could be increased by extreme weather conditions (Liang and Gong 2017). Enhanced surveillance, efficient international

collaboration, and timely warning systems are needed for global pandemics. Recently, when the sustainable development goals (SDGs) are being highlighted, the public prevention and preparation for man-made and natural catastrophes along with adjustment and resistance to climate and environmental changes have become more and more essential (Mingyu et al. 2020). Moving to a green economy may help to achieve global sustainability.

Discussions

This study explored and identified both the positive and negative indirect environmental impacts of COVID-19, along with putting forward the futuristic view to cope with the economic and environmental revival. As a further step, it has highlighted and discussed the future strategies in the light of previous studies. It was found that the positive indirect impacts are associated with the decline of NO₂ and PM_{2.5} μm intensities in China, Italy, France, Spain, and Germany. Besides, the drop in environmental noise level and clean beaches were specified as other positive indirect impacts (Tantrakarnapa et al. 2020). On the contrary, the rise in medical and domestic waste was highlighted as negative indirect impacts. Another negative indirect impact of COVID-19 is the restraint of waste recycling in economies like Italy and the USA (Somani et al. 2020).

Although GHG emissions have been dropped significantly due to the current pandemic (Razzaq et al. 2020), it is indispensable to discuss that this decline has a minute effect on the overall GHG emissions, as they have accrued in the climate for ages. A long-term structural modification in the economies of countries is important for a substantial reduction. This can be accomplished by the enactment of environmental obligations. Moreover, the current observation in the reduction of GHG emissions is not permanent. Once the pandemic over, countries possibly revitalize their normal activities, and the emissions will increase rapidly once again.

The epidemic has disrupted the supply chains of almost all industries. For instance, the pattern of purchasing and consuming food has been severely affected during the outbreak. Following the panic purchases at the start of the pandemic, the fear of contamination has converted into food purchasing habits that have been spreading over time. This has resulted in many families producing more food waste because of the absence of foresight. In contrast, other families have expected more food to be consumed due to the fear of repeated purchases. The lockdown initiatives

have led people to an increased learning process in managing food transactions, and while potentially indirectly, a new understanding of responsible consumption has occurred (Aldaco et al. 2020). Contrastingly, Shah et al. (2020) argued that if the post-COVID-19 world returns to the business-as-usual, it will eliminate the temporary low-emissions transition phase. Therefore, they suggested that the introduction and intensive implementation of waste-to-energy technologies would not only permanently reduce environmental pollution but also, it would put the post-COVID-19 world on a path of sustainable revival in the long-run. Along these lines, as claimed by Ali et al. (2020), though the COVID-19 involved large-scale disturbances in human beings and economies' routines, it has provided the potential opportunity to gain a sustainable revival by making robust strategies.

Song (2020) opined that, on the one hand, COVID-19 has adversely affected the street stall economy in China. However, on the other hand, it has provided the opportunity to adopt a more flexible regulatory framework in the post-COVID world. For instance, street vendors could regulate the street economy's regulations to share the government's burden and provide a more participatory role in the prevention of future epidemics. It was termed as smart regulations. From the perspective of international entrepreneurship, the post-COVID-19 may bring a boom in innovations. This is quite intuitive because, as the proverb goes, 'necessity is the mother of invention,' the dilemma of COVID-19 has triggered the need for an innovative digital world of entrepreneurship to cope with the future economic shut-downs in the times of pandemics and other natural calamities. Leach et al. (2021) discussed the post-COVID-19 transformations the world development would need to implement to have a sustainable future. They prioritized scientific evidence and economic functioning to be considered the core of countries' development policies. Besides, Sui et al. (2020) contemplated that in the post-COVID-19 China, the ridership of buses would be reduced by 40% than before COVID-19. In that case, it would become a barrier to the sustainable future because the dependency on personal vehicles would be increased, which could increase environmental emissions in the post-COVID-19 situation. The development policies introducing innovative and smart travel plans through general transportation would reduce those emissions to counter this situation.

CONCLUSIONS

The novel SARS-CoV2 has generated both positive and negative environmental impacts,

but the latter will be more significant, with its long-term consequences. Though the global pandemic (COVID-19) has halted the economic activities and is significant intimidation to public health, society, and the environment. However, it is also considered as a hidden blessing, where environmental pollution is decreasing, and the nature is retrieving. This phenomenon has a close association between the economy and environmental pollution. The decrease in economic activities significantly influenced global energy consumption patterns and successfully demotes the production of environmental pollution. In spite of this, the temporary reduction in environmental pollution and GHG emissions during the COVID-19 emergency is not a plausible track to save our ecosystem.

The post-pandemic situation provides insights that all businesses, including visiting beaches, hoteling, cinemas, catering, waste management, cannot go on as normal as before the COVID-19 pandemic, which would need structural adjustments, and thus, emphasizing the significance of the transition from linear to a circular economy. This actually contributes to achieving zero-residue and zero-carbon economic growth with minimum waste management expenditure.

If the governments do not pay attention to the environmental impacts of the pandemic, the crises will cause other environmental problems that may be more intense and uncontrollable. In this case, certain actions are needed to be exhibited by the general public to limit the spread of the COVID-19 pandemic. Firstly, person to person contact should be minimized on an urgent basis. Secondly, older people, frontline paramedical staff, and children are the most vulnerable population group, as most of the deaths are occurring mainly in this population group. Therefore, special attention should be given to them to forbid the rapid dispersion of viral infections. Thirdly, there are already available parameters for the health care employees, medical staff, and public health individuals who are dealing with the pandemic. The public services should make individuals aware of the deadly impacts of COVID-19 on the environment and society. Therefore, as a guideline, the physical contact with wet and contaminated items should be avoided, as these could be the possible ways of SARS-CoV2 virus transmission. As a final point, the benefits of the COVID-19 lockdowns and temporary pause of economic and social activities can be reaped only by implementing targeted policies to achieve a sustainable post-COVID-19 future of the economic environment. Hence, the Governments and practitioners should prepare the robust action plans for future pandemics.

2022 Elections



The time is here to submit your votes! Cast your votes by viewing our Ballot sent via email. Read about our candidates below to get a sneak peak!



**Candidate for President:
Nicole Gragas**

Nicole Gragas is an Environmental Health Specialist II for the Fairfax County Health Department. Originally from California, Nicole graduated with a Bachelor's of Science in Health Sciences with an option in Community Health from the California State University, Long Beach. Nicole began her career in 2013 as an Environmental Health Technician for the OS&W section conducting recreational water facility inspections and private well water inspections. She soon advanced on to become an Environmental Health Specialist II where she gained further experience in Food Safety, Tourist, and Child Care inspections for the Consumer Protection Program in addition to Plan Review of commercial food facilities. Nicole has served on multiple notable committees including the Active Managerial Control team, EH IT team, the Health Department's Customer Service team and has taken part with NACCHO Mentorship Program with the 2015 and 2019 cohorts. Furthermore, she maintains a NEHA credential as an REHS/RS. Nicole has been our VP of Membership and our Director of Communications for the past 4 years. Her hard work and dedication has proven to be most valuable as she has changed the way the organization handles not only the Membership Database, but also online payments, renewals and event registrations with the design and creation of the newly launched NCAEHA website and Membership Platform. She has been the sole manager of weekly/monthly email communication between NCAEHA and members by providing email updates and updating the website. She has been a member of the NCAEHA since 2015.



**Candidate for VP of
Programs & Professional
Advancement:
Amanda Coletti**

Amanda graduated from The State University of New York College at Oneonta in 2014 with a BS in Human Biology. She earned her Master of Public Health with a concentration in Epidemiology from George Mason University in 2017. Amanda started her career in environmental health working as an Environmental Technician in the Disease Carrying Insects Program (DCIP) at the Fairfax County Health Department. Amanda then interned at the United States Environmental Protection Agency and worked on a wide variety of projects, including but not limited to, pesticides, asbestos, air quality, and drinking water. After her internship, Amanda was hired as an Environmental Technician with the Onsite Sewage and Water Program at the Fairfax County Health Department. She then moved on to food inspections by working as an Environmental Health Specialist in the Food Protection Program for the Prince George's County Health Department. Amanda currently works as an Environmental Health Specialist in the Food Protection Program for the Alexandria Health Department. She has worked in many different areas of environmental health and recently earned her REHS. Amanda currently resides in Alexandria, VA and enjoys cooking and spending time with her corgi, Finn.

**Candidate for VP of
Membership:
OPEN**

Interested in joining our Board? Our VP of Membership's prime duties include managing our Wild Apricot Database and updating Membership statuses throughout the year. The VP of Membership also heads the Awards Committee and coordinates the Annual Awards Dinner held in the summer. Contact ncaeha.vp.membership@gmail.com if you have any questions about the position or if interested!

Meet our new NCAEHA Industry Liaison!

The NCAEHA Industry Liaison's prime duties are to represent interests of industry while establishing and maintaining a liaison between industry and the regulatory community.



Please join us in welcoming **Caroline Friel** as our new Industry Liaison!

Caroline graduated from Trinity College Dublin Ireland with a BS in Environmental Health and completed a Master's Degree in Public Health from Temple University in Philadelphia. She started her career working as an Environmental Health Officer in the UK. A visit to family in the Philadelphia area in 1990 resulted in a position as a public health officer with the City of Philadelphia Health Department. From there she moved on to a corporate auditor with Acme Markets, followed by a Quality Control manager position in manufacturing. A further role in food safety consultancy led to a position with Wawa for the past 21 years. Caroline is part of the Quality Assurance Risk and Safety team at Wawa and is responsible for all aspects of food safety compliance. She also oversees Wawa's internal food safety audit program.

Open Board Positions! **- DIRECTOR OF COMMUNICATIONS**

CONTACT US AT NCAEHA.PRESIDENT@GMAIL.COM IF INTERESTED!

The Director of Communication's Prime Duties include:

- *Produces and publishes issues of The Preventive Measure prior to each conference or as directed by the Board*
- *Produces and publishes the Annual Report in collaboration with the Board*
- *Coordinates publication deadlines with the Board of Directors*
- *Maintains the website with updates in a timely manner. This includes, but is not limited to, posting the newsletter, future educational conference dates and agendas Board meeting minutes, updated forms, scholarship information, and maintaining current links*
- *Communicates announcements and reminders to members on upcoming educational conferences and other events in a timely manner*
- *Chairs the Newsletter Committee*



IF YOU HAVEN'T ALREADY, IT'S TIME TO RENEW YOUR 2023 MEMBERSHIP!



BENEFITS OF MEMBERSHIP:

- ✓ Be a part of a local association in the DC, MD, and VA area that is focused on environmental health (EH)
- ✓ Network with other local EH professionals in academia, industry, government, private sector, and other areas
- ✓ Advance your career by pursuing a credential or certification with our discounted annual courses like the REHS, CP-FS, CPO, and more
- ✓ Gain more knowledge and/or earn up to 15 Continuing Education hours per year by attending our nearby Educational Conferences
- ✓ Enjoy a good time with your EH colleagues and build new connections at our social events
- ✓ Recognize an EH professional by nominating them for an award or scholarship
- ✓ Pursue local EH employment opportunities with easy accessibility through our announcements
- ✓ Stay updated through our newsletter, website, and social media and announcements on other events, trainings, webinars, and more

Memberships expire on December 31, 2022.
Regular Membership Renewal: \$20.00
Student and Silver Membership Renewal: \$5.00

Membership Renewal may be completed online at www.ncaeha.org
by simply logging onto your profile and click the RENEW button!
Payments are accepted online via credit card.

NATIONAL CAPITAL AREA
ENVIRONMENTAL HEALTH ASSOCIATION

**SAVE
THE
DATE!**

**IN-PERSON
EDUCATIONAL
CONFERENCE**

**JAN 30, 2023
9:00AM-4:00PM**

**FAIRLINGTON CENTER,
3308 S STAFFORD ST,
ARLINGTON, VA 22206**

**\$15 TO ATTEND
BREAKFAST AND
LIGHT REFRESHMENTS PROVIDED**



***Please join us as we reunite for
our FIRST IN-PERSON
CONFERENCE IN 3 YEARS!***

***We have been grateful for the
opportunity to provide our
members free virtual
conferences for the past 3
years. We have gained
tremendous support from our
members and have held
successful virtual conferences
during this time. As we
progress into the new year, we
are excited to resume our
future conferences in-person
to support the needs of our
organization. We will be
resuming our
pre-pandemic Educational
Conference fees of \$15 to
attend. We look forward to
the reuniting and networking
of membership once again!
Can't wait to see you in
person on January 30th!***

NATIONAL CAPITAL AREA
ENVIRONMENTAL HEALTH ASSOCIATION

**SEEKING
CONFERENCE SPEAKERS!**

**If you are interested or
know someone that would
be interested in presenting
on a Public Health topic,
please contact
ncaeha.va.rep@gmail.com**

