

CURRICULUM VITAE

Yisi Liu

Department of Epidemiology and Environmental Health
College of Public Health
University of Kentucky.

E-mail: yisi.liu@uky.edu

Tel: 206-476-6793

Website: <https://visiliu.weebly.com>

ACADEMIC APPOINTMENTS

- 2024 **Tenure-track Assistant Professor, University of Kentucky**
Department of Epidemiology and Environmental Health, College of Public Health
- 2021 – Present **Postdoctoral Scholar - Research Associate, University of Southern California, U.S.**
MADRES Center for Environmental Health Disparities, Department of Population and Public Health Sciences, Keck School of Medicine
Advisor: Rima Habre

EDUCATION

- 2017 – 2021 **Ph.D. in Environmental and Occupation Hygiene**
University of Washington, U.S. | Dissertation Committee: Edmund Seto (advisor), Joel Kaufman, Christopher Simpson, Elena Austin, Anne Moudon
- 2012 – 2017 **Bachelor of Medicine (graduated with honors)**
Wuhan University, China. | Advisor: Dr. Hao Xiang

PROFESSIONAL EXPERIENCE

- 2017 **Temporary staff**
Department of International Cooperation, National Health Commission of the People's Republic of China
Organizing China-Africa Ministerial Conference on Health Cooperation
- 2015 **Intern**
Zhongnan Hospital of Wuhan University (tertiary comprehensive), China
Rotated in six departments — respiratory, cardiology, infection, gynecology and obstetrics, gastroenterology and pediatrics

RESEARCH GRANT

- 2024 A tri-environmental GeoAI co-design framework to examine the nexus between

children's health and combined exposure to air pollution and heatwave. – Co-I
Southern California Center for Children's Environmental Health Research
Translation Pilot Project Award | 2024
2018 Short-term health effects of traffic-related air pollution in multi-modal
commuting in Chengdu. – Co-PI
Department of Science and Technology, Sichuan Province, China | 2018-2020

REFEREED JOURNAL ARTICLES

35. Huang X, Wang S, Lu T, Liu Y, Serrano-Estrada L. Crowdsourced geospatial data is reshaping urban sciences. *International Journal of Applied Earth Observation and Geoinformation*. 2024, 103687.
34. Lu T, Garcia DA, Garcia A, **Liu Y**. Leveraging crowd-sourced environmental data to assess air pollution exposure disparity: A case of Los Angeles County. *International Journal of Applied Earth Observation and Geoinformation*. 2023, 125, 103599.
<https://doi.org/10.1016/j.jag.2023.103599>
33. Lu T, **Liu Y**, Garcia A, Wang M, Li Y, Bravo-villasenor G, Campos K, Xu J, Han B. Leveraging Citizen Science and Low-Cost Sensors to Characterize Air Pollution Exposure of Disadvantaged Communities in Southern California. *International journal of environmental research and public health*. 2022, 19 (14), 8777. <https://doi.org/10.3390/ijerph19148777>
32. Peng S, Lu T, **Liu Y**, Li Z, Liu F, Sun J, Chen M, Wang H, Xiang H. Short-term exposure to fine particulate matter and its constituents may affect renal function via oxidative stress: A longitudinal panel study. *Chemosphere*. 2022 p.133570.
<https://doi.org/10.1016/j.chemosphere.2022.133570>
31. Li Z, **Liu Y**, Lu T, Peng S, Liu F, Sun J, Xiang H. Acute effect of fine particulate matter on blood pressure, heart rate and related inflammation biomarkers: A panel study in healthy adults. *Ecotoxicology and Environmental Safety*. 2021 Dec 228: 113024.
<https://doi.org/10.1016/j.ecoenv.2021.113024>
30. Yao Y, Lu T, **Liu Y**, Qin Q, Jiang J, Xiang H. Association of depressive symptoms with ambient PM2.5 in middle-aged and elderly Chinese adults: A cross-sectional study from the China health and Retirement Longitudinal Study wave 4. *Environmental Research*. 2021 Aug 18:111889. <https://doi.org/10.1016/j.envres.2021.111889>
29. **Liu Y**, Austin E, Xiang J, Gould T, Larson T, Seto E. Health impact assessment of the 2020 Washington State wildfire smoke episode: Excess health burden attributable to increased PM2.5 exposures and potential exposure reductions. *GeoHealth*. 2021 May;5(5):e2020GH000359.
<https://doi.org/10.1029/2020GH000359>
28. Liu F, Chen X, **Liu Y**, Niu Z, Tang H, Mao S, Li N, Chen G, Xiang H. Serum cardiovascular-related metabolites disturbance exposed to different heavy metal exposure scenarios. *Journal of Hazardous Materials*. 2021 Mar 5:125590. <https://doi.org/10.1016/j.jhazmat.2021.125590>
27. Chen G, Chen J, Dong GH, Yang BY, **Liu Y**, Lu T, Yu P, Guo Y, Li S. Improving satellite-based estimation of surface ozone across China during 2008–2019 using iterative random forest

- model and high-resolution grid meteorological data. *Sustainable Cities and Society*. 2021 Feb 26:102807. <https://doi.org/10.1016/j.scs.2021.102807>
26. Xiang J, Huang CH, Shirai J, **Liu Y**, Carmona N, Zuidema C, Austin E, Gould T, Larson T, Seto E. Field measurements of PM_{2.5} infiltration factor and portable air cleaner effectiveness during wildfire episodes in US residences. *Science of The Total Environment*. 2021 Feb 5:145642. <https://doi.org/10.1016/j.scitotenv.2021.145642>
25. Xiang J, Huang CH, Austin E, Shirai J, **Liu Y**, Seto E. Energy consumption of using HEPA-based portable air cleaner in residences: A monitoring study in Seattle, US. *Energy and Buildings*. 2021 Feb 1:110773. <https://doi.org/10.1016/j.enbuild.2021.110773>
24. Huang C, Xiang J, Austin E, Shirai J, **Liu Y**, Simpson C, Karr C, Fyfe-Johnson, Kronborg T, Seto E. Impacts of using auto-mode portable air cleaner on indoor PM_{2.5} levels: An intervention study. *Building and Environment*. 2020:107444. <https://doi.org/10.1016/j.buildenv.2020.107444>
23. Xiang J, Austin E, Gould T, Larson T, Shirai J, **Liu Y**, Marshall J, Seto E. Impacts of the COVID-19 responses on traffic-related air pollution in a Northwestern US city. *Science of The Total Environment*. 2020 Jul 28:141325. <https://doi.org/10.1016/j.scitotenv.2020.141325>
22. Gao P, Guan L, **Liu Y**, Liu F, Yu W, Li X, Liu S, Lu Y, Li H, Xiang H. Cultivating global health professionals: evaluation of a training course to develop international consulting service competence in China. *Global Health Journal*. 2020 Apr 14. <https://doi.org/10.1016/j.glohj.2020.01.003>
21. Xiang J, Austin E, Gould T, Larson TV, Yost M, Shirai JH, **Liu Y**, Yun S, Seto E. Using vehicles' rendezvous for in-situ calibration of instruments in fleet vehicle-based air pollution mobile monitoring. *Environmental Science & Technology*. 2020 Mar 9 ;54(7):4286-94. <https://doi.org/10.1021/acs.est.0c00612>
20. Mao S, Li S, Wang C, **Liu Y**, Li N, Liu F, Huang S, Liu S, Lu Y, Mao Z, Huo W. Is long-term PM₁ exposure associated with blood lipids and dyslipidemias in a Chinese rural population? *Environment International*. 2020 May 1;138:105637. <https://doi.org/10.1016/j.envint.2020.105637>
19. Li N, Chen G, Liu F, Mao S, **Liu Y**, Liu S, Mao Z, Lu Y, Wang C, Guo Y, Xiang H. Associations between long-term exposure to air pollution and blood pressure and effect modifications by behavioral factors. *Environmental Research*. 2020 Jan 7:109109. <https://doi.org/10.1016/j.envres.2019.109109>
18. Mao S, Chen G, Liu F, Li N, Wang C, **Liu Y**, Liu S, Lu Y, Xiang H, Guo Y, Li S. Long-term effects of ambient air pollutants to blood lipids and dyslipidemias in a Chinese rural population. *Environmental Pollution*. 2020 Jan 1;256:113403. <https://doi.org/10.1016/j.envpol.2019.113403>
17. **Liu Y**, Lan B, Shirai J, Austin E, Yang C, Seto E. Exposures to Air Pollution and Noise from Multi-Modal Commuting in a Chinese City. *International journal of environmental research and public health*. 2019 Jan;16(14):2539. <https://doi.org/10.3390/ijerph16142539>
16. Li N, Chen G, Liu F, Mao S, **Liu Y**, Hou Y, Lu Y, Liu S, Wang C, Xiang H, Guo Y. Associations of long-term exposure to ambient PM₁ with hypertension and blood pressure in rural Chinese population: The Henan rural cohort study. *Environment international*. 2019 Jul 1;128:95-102. <https://doi.org/10.1016/j.envint.2019.04.037>

15. Liu F, Guo Y, **Liu Y**, Chen G, Wang Y, Xue X, Liu S, Huo W, Mao Z, Hou Y, Lu Y. Associations of long-term exposure to PM1, PM2.5, NO2 with type 2 diabetes mellitus prevalence and fasting blood glucose levels in Chinese rural populations. *Environment international*. 2019 Dec 1;133:105213. <https://doi.org/10.1016/j.envint.2019.105213>
14. Huang Q, Ren Y, **Liu Y**, Liu S, Liu F, Li X, Li B, Hou Y, Lu Y, Li S, Yan H. Associations of gestational and early life exposure to air pollution with childhood allergic rhinitis. *Atmospheric environment*. 2019 Mar 1;200:190-6. <https://doi.org/10.1016/j.atmosenv.2018.11.055>
13. Ren Y, Yao X, **Liu Y**, Liu S, Li X, Huang Q, Liu F, Li N, Lu Y, Yuan Z, Li S. Outdoor air pollution pregnancy exposures are associated with behavioral problems in China's preschoolers. *Environmental Science and Pollution Research*. 2019 Jan 30;26(3):2397-408. <https://doi.org/10.1007/s11356-018-3715-2>
12. Guan L, Gao P, Liu S, **Liu Y**, Li X, Liu F, Mao Z, Lu Y, Xiang H. Development of a global health bachelor curriculum in China: a Delphi study. *BMJ open*. 2019 Jan 1;9(1):e023893. <http://dx.doi.org/10.1136/bmjopen-2018-023893>
11. **Liu Y**, Birch S, Newbold KB, Essue BM. Barriers to treatment adherence for individuals with latent tuberculosis infection: A systematic search and narrative synthesis of the literature. *The International journal of health planning and management*. 2018 Apr;33(2):e416-33. <https://doi.org/10.1002/hpm.2495>
10. Li X, **Liu Y**, Liu F, Wang Y, Yang X, Yu J, Xue X, Jiao A, Lu Y, Tian L, Deng S. Analysis of short-term and sub-chronic effects of ambient air pollution on preterm birth in central China. *Environmental Science and Pollution Research*. 2018 Jul 1;25(19):19028-39. <https://doi.org/10.1007/s11356-018-2061-8>
9. Gao P, Xiang H, Liu S, **Liu Y**, Dong S, Liu F, Yu W, Li X, Guan L, Chu Y, Mao Z. Evaluation of a consulting training course for international development assistance for health. *BMC medical education*. 2018 Dec;18(1):234. <https://doi.org/10.1186/s12909-018-1339-3>
8. Li X, Huang S, Jiao A, Yang X, Yun J, Wang Y, Xue X, Chu Y, Liu F, **Liu Y**, Ren M. Association between ambient fine particulate matter and preterm birth or term low birth weight: an updated systematic review and meta-analysis. *Environmental Pollution*. 2017 Aug 1;227:596-605. <https://doi.org/10.1016/j.envpol.2017.03.055>
7. Chu Y, **Liu Y**, Lu Y, Yu L, Lu H, Guo Y, Liu F, Wu Y, Mao Z, Ren M, Li N. Propensity to Migrate and Willingness to Pay Related to Air Pollution among Different Populations in Wuhan, China. *Aerosol and Air Quality Research*. 2017 Mar 1;17(3):752-60. <https://doi.org/10.4209/aaqr.2016.05.0178>
6. Liu F, Yan L, Wang Z, Lu Y, Chu Y, Li X, **Liu Y**, Rui D, Nie S, Xiang H. Metformin therapy and risk of colorectal adenomas and colorectal cancer in type 2 diabetes mellitus patients: A systematic review and meta-analysis. *Oncotarget*. 2017 Feb 28;8(9):16017. <https://doi.org/10.18632/oncotarget.13762>
5. Ren M, Li N, Wang Z, **Liu Y**, Chen X, Chu Y, Li X, Zhu Z, Tian L, Xiang H. The short-term effects of air pollutants on respiratory disease mortality in Wuhan, China: comparison of time-series and case-crossover analyses. *Scientific reports*. 2017 Jan 13;7:40482. <https://doi.org/10.1038/srep40482>

4. Chu Y, **Liu Y**, Li X, Liu Z, Lu H, Lu Y, Mao Z, Chen X, Li N, Ren M, Liu F. A review on predicting ground PM_{2.5} concentration using satellite aerosol optical depth. *Atmosphere*. 2016 Oct 14;7(10):129. <https://doi.org/10.3390/atmos7100129>
3. Liu F, Dear K, Huang L, Liu L, Shi Y, Nie S, **Liu Y**, Lu Y, Xiang H. Association between microRNA-27a rs895819 polymorphism and risk of colorectal cancer: A meta-analysis. *Cancer genetics*. 2016 Sep 1;209(9):388-94. <https://doi.org/10.1016/j.cancergen.2016.08.003>
2. Guo Y, Liu F, Lu Y, Mao Z, Lu H, Wu Y, Chu Y, Yu L, **Liu Y**, Ren M, Li N. Factors affecting parent's perception on air quality—From the individual to the community level. *International journal of environmental research and public health*. 2016 May;13(5):493. <https://doi.org/10.3390/ijerph13050493>
1. **Liu Y**, Chen X, Huang S, Tian L, Lu YA, Mei Y, Ren M, Li N, Liu L, Xiang H. Association between air pollutants and cardiovascular disease mortality in Wuhan, China. *International journal of environmental research and public health*. 2015 Mar 25;12(4):3506-16. <https://doi.org/10.3390/ijerph120403506>

ARTICLES UNDER PREPARATION

7. **Liu Y**, Yi L, Xu Y, Cabison J, Eckel PS, Mason BT, Chu D, Lurvey N, Lerner D, Johnston J, Bastain MT, Farzan FD, Breton VC, Dunton FG, Habre R. Spatial and Temporal Determinants of Particulate Matter Peak Exposures during Pregnancy and Early Postpartum. *Environmental Advances*. 2024, under review, ENVADV-D-24-00078
6. Li L, Khalili R, Lurmann F, Pavlović N, Wu J, **Liu Y**, O'Sharkey K, Ritz B, Oman L, Franklin M, Bastain T, Farzan S, Breton C, Habre R. Physics-Informed Deep Learning to Reduce the Bias in Joint Prediction of Nitrogen Oxides. *arXiv*: 2308.07441
5. **Liu Y**, Khalili R, Hao H, Hosseini A, Bui A, Habre R. The acute impact of air pollution exposures on pediatric asthma exacerbation.
4. **Liu Y**, Yi L, Xu Y; O'Sharkey K, Khalili R, Bastain T, Breton C, Dunton G, Habre R. Exposure differences between personal and outdoor PM_{2.5} exposures for pregnant women in different microenvironment.
3. **Liu Y**, Lu T, Kaufman J, Simpson C, Austin E, Seto E. The short-term health effect of traffic-related air pollution: a systematic review of individual-level studies.
2. **Liu Y**, Yang C, Peng Y, Austin E, Shirai J, Seto E. How are travel modes of urban commuters affected by built environment and socio-demographic factors? PLSDA and G-computation approaches.
1. **Liu Y**, Chen J, Zhang L, Yang C, Austin E, Kaufman J, Simpson C, Shirai J, Han B, Bai Z, Yang W, Seto E. How does inhaled air pollution impact cardiorespiratory health of travelers with face masks? The application of new exposure metrics.

CONFERENCE & SYMPOSIUM

- 2023 **Oral Presentation** “The impact of wildfire smoke on exposure measurement

- error of fine particulate matter”, International Society of Exposure Science (ISES) 2023 annual conference, Aug 27-31, Chicago, IL, U.S.
- 2022 **Oral Presentation** “Advancing personal air pollution exposure for pregnancy studies using air sensors”, Air Sensor International Conference (ASIC), May. 11-13, Pasadena, CA, U.S.
- Oral Presentation** “Embedding Physics-Guided Principles in Ensemble Neural Networks for Predicting Nitrogen Oxides at High Spatiotemporal Resolution”, International Society of Exposure Science (ISES) 2022 annual conference, Sep. 25-29, Lisbon, Portugal.
- 2021 **Oral Presentation** (online due to COVID-19), “Health burden attributable to increased PM_{2.5} exposures and potential exposure reductions during the 2020 Washington State wildfire smoke episode”, the 33rd Annual Conference of the International Society for Environmental Epidemiology (ISEE), Aug. 23-26, New York, U.S.
- Poster** (online due to COVID-19), “Racial-ethnic Disparities in PM_{2.5} Exposure in California: Differences by Season and Daily Pollution Level”, the 33rd Annual Conference of the International Society for Environmental Epidemiology (ISEE), Aug. 23-26, New York, U.S.
- 2020 **Poster** (online due to COVID-19), “Short-term health effects of traffic-related air pollution exposures in multi-modal commuting in Chengdu, China”, the 32nd Annual Conference of the International Society for Environmental Epidemiology (ISEE), Aug. 24-27, Washington D.C., U.S.
- Oral Podium Presentation** (online due to COVID-19), “Short-term health effects of traffic-related air pollution exposure in multi-modal commuting in Chengdu, China”, Air Sensor International Conference (ASIC), May. 12-15, Pasadena, CA, U.S.
- Poster**, “Crowdsourcing air quality from human and vehicle-based sensors for smart cities”, 3rd International Conference on Intelligent Human Systems Integration (IHSI), Feb. 19-21, Modena, Italy.
- Attendee** (online due to COVID-19), Health Effects Institute (HEI) 2020 Annual Conference
- 2019 **Workshop**, Workshop on “Air Pollution and Environmental Health” between Chinese Research Academy of Environmental Sciences and University of Washington, Sep. 13-15, Beijing, China
- Poster Discussion**, “Effect of highway commuting on physiological stress: a randomized, cross-over intervention study”, the 31st Annual Conference of the International Society for Environmental Epidemiology (ISEE), Aug. 25-28, Utrecht, The Netherlands.
- Poster Presentation**, “Untargeted metabolomics analysis of wood smoke and diesel exhaust particulate matter”, the 31st Annual Conference of the International Society for Environmental Epidemiology (ISEE), Aug. 25-28,

Utrecht, The Netherlands.

Attendee, Health Effects Institute (HEI) 2019 Annual Conference, May 5-7, Seattle, Washington, U.S.

- 2018 **Oral Presentation**, “Impacts of multi-modal commuting on personal air and noise exposures and airway inflammation”, Air Sensor International Conference (ASIC), Sep. 12-14, Oakland, CA, U.S.
Oral Presentation, “The influence of personal behaviors on personal air pollution exposures and acute health effects”, the Joint Meeting of the International Society of Exposure Science and the International Society for Environmental Epidemiology (ISES-ISEE), Aug. 26-30, Ottawa, Canada.
- 2017 **Workshop Organization**, “Air quality monitors – Get out! Get active! Get data!”, International Society of Exposure Science (ISES) 2017 annual conference, Oct. 15-19, Research Triangle Park, NC, U.S.
- 2016 **Oral Presentation**, “Associations between satellite aerosol optical depth and daily mortality in Wuhan, China.”, The 2nd Annual Conference of the Chinese Consortium of Universities for Global Health (CCUGH), Oct. 14-15, Duke Kunshan University, Kunshan, China.
- 2014 **Poster Presentation**, “Association between air pollutants and daily mortality in Wuhan, China.”, The 46th Asia Pacific Academic Consortium for Public Health (APACPH) Conference, Oct. 16-19, Kuala Lumpur, Malaysia.

INVITED TALK

- 2024 “Advancing Personal Air Pollution Exposure for Environmental Epidemiology”
Feb. 16, Epidemiology and Environmental Health Seminar, School of Public Health and Health Professions, University at Buffalo, U.S.
- 2022 “Advancing Personal Air Pollution Exposure for Environmental Epidemiology: Cases from China and the US.”
Sep. 8, EPI-BIO Lecture Series, College of Public Health, University of Kentucky, U.S.
- 2021 “Personal air pollution exposure in environmental epidemiology.”
Dec. 26, Donghu Forum, Huazhong University of Science and Technology, China.
- 2020 “Short-term health effects of TRAP exposures in multi-modal commuting in Chengdu, China.”
March 18, Chinese Research Academy of Environmental Sciences, China
- 2019 “How to design panel studies and intervention studies to estimate short-term health effects of air pollution?”

November 13-14, Environmental Health Youth Roundtable Forum and Academic Seminar, Wuhan University, China.

2017 “Capacity building for global health professionals in Chinese universities.” August 18-20, Round Table on Global Health Youth Leadership, “The Belt and Road” and “Healthy Silk Road” High-level Conference, National Health Commission of the People’s Republic of China, China.

MENTORING

Master Committee member:
Kimberly Campos (MS in Environmental Science, California State University, Dominguez Hills)

Undergraduate Jiayuan Hao (BS in Global Health, Wuhan University)

TEACHING EXPERIENCE

2024 “Personal Air Pollution Exposures in Epidemiology”
CPH 320 Fundamentals of Environmental Health (guest lecture), University of Kentucky, U.S.

2022 “Urban Planning and Health: Environmental Health Issues Faced by Cities”
GEO 433 Environmental Analysis (guest lecture), California State University Dominguez Hills, U.S.

2020 “Environmental health issues faced by cities: examples of urban air quality.”
GEO 357 Urban Geography (guest lecture), California State University Dominguez Hills, U.S.

2019 “Exposures and health effects of traffic-related air pollution: the design of intervention studies.”
CDC staff training program, Sichuan CDC, China.

2018 “How to conduct scientific research to know the air we breathe?”
Extra-curricular scientific research group (fourteen K-12 students), Chengdu, China.

AWARDS & HONORS

2021 **ISEE Registration Award**, International Society for Environmental Epidemiology, U.S.

2020 **ISEE Travel Award**, International Society for Environmental Epidemiology, U.S.

- 2019 **NIH Travel Award** (12 awardees in total), National Institutes of Health, U.S.
- 2018 **Travel Grants**, University of Washington
- 2017 **Outstanding Graduate**, Wuhan University, China
- 2016 **Mitacs Globalink Research Internship Grant**, Mitacs, Canada
International Exchange Grant for Outstanding Undergraduates, China
 Scholarship Council, China
Leijun Scholarship (total 30 awardees), Wuhan University, China
1st Award of Scientific Research Achievement of College Student, Wuhan
 University, China
- 2015 **National Undergraduate Training Program for Innovation Grant**, Ministry
 of Education, China
Chinese National Scholarship, Ministry of Education, China
- 2014 **Chinese National Scholarship**, Ministry of Education, China
- 2013 **Chinese National Scholarship**, Ministry of Education, China

PROFESSIONAL ACTIVITIES

- Editor** BMC Public Health
- Guest Editor** Atmosphere
 International Journal of Applied Earth Observation and Geoinformation
- Reviewer** Environmental Science & Technology
 Science of the Total Environment
 Environmental Research
 Environmental Pollution
 Atmospheric Environment
 The BMJ
 American Journal of Respiratory and Critical Care Medicine
 GeoHealth
 Frontiers in Public Health
 Atmosphere
 Sensors
 Scientific Reports
 Applied Sciences
 Journal of Diabetes Research
 Journal of Asthma and Allergy
 Environmental Health Insights
 Transportation Research Record
 Global Health Research and Policy
 Cutaneous and Ocular Toxicology

PROFESSIONAL-RELATED SERVICES

Planning Committee member

2024 Air Sensor International Conference (ASIC), Riverside, U.S.

Roundtable Host

Human health research using air sensors

2022 Air Sensor International Conference (ASIC), Pasadena, U.S.

Workshop Assistant

CalEnviroScreen ISES – Preconference Workshop

International Society of Exposure Science (ISES) 2021 annual conference, online.

Committee member

Work in Progress Seminar Series (WIPS)

Department of Environmental and Occupational Health Sciences, University of Washington, U.S.

Conference paper reviewer

The Transportation Research Board (TRB) annual meeting

The National Academies of Sciences, Engineering, and Medicine, U.S.

Student volunteer

Preconference workshops

International Society of Exposure Science (ISES) 2021 annual conference

MEDIA COVERAGE

HeraldNet <https://www.heraldnet.com/news/wildfire-smoke-a-burning-health-issue-is-getting-worse/>

AP/ the Seattle Times <https://deohs.washington.edu/hsm-blog/collaborating-solve-public-health-problems>

KUOW/NPR <https://www.kuow.org/stories/wildfire-smoke-may-have-contributed-to-nearly-200-deaths-in-washington-this-month>

University of Washington <https://deohs.washington.edu/hsm-blog/hepa-air-cleaners-could-prevent-deaths-wildfire-smoke>

<https://deohs.washington.edu/hsm-blog/collaborating-solve-public-health-problems>

http://www.dailyuw.com/news/article_228d9038-09fa-11eb-b3d3-cf313b30c456.html

<https://sph.washington.edu/news-events/news/study-provides-way->

[more-accurately-measure-impact-covid-19-response-air-pollution](https://deohs.washington.edu/hsm-blog/more-accurately-measure-impact-covid-19-response-air-pollution)
<https://deohs.washington.edu/hsm-blog/measuring-pandemics-impact-air-pollution>
<https://deohs.washington.edu/hsm-blog/can-trees-clean-jet-pollution>
<https://sph.washington.edu/news-events/news/air-quality-study-takes>

Sichuan Field Epidemiology Training Program

<https://www.sccdc.cn/manage/Public/Edit/uploadfile/20200114/20200114102307278.pdf>

Wuhan University

<https://en.whu.edu.cn/info/1220/3258.htm>
<http://shs.whu.edu.cn/info/1092/3035.htm>

China Youth

http://news.youth.cn/jsxw/201706/t20170622_10139878.htm