

## **AIR Centre Networking Friday with Gregory Jenkins on April 24, 2020**

### **Relevant Air Quality Papers linked to Greg Jenkins presentation**

- Diokhane, A. M, Jenkins, G. S., Manga, N., Drame, M. S., 2016: Linkages between Observed, Modeled Saharan dust loading and Meningitis in Senegal during 2012 and 2013, Int J Biometeorol DOI 10.1007/s00484-015-1051-5
- Jenkins, G. S. and A. M. Diokhane, 2017. WRF prediction of two winter season Saharan dust events: boundary versus initial conditions, Environment 167, 129-142
- Jenkins G. S., and M. Gueye, 2018. WRF 1960-2014 Winter Season simulations of Particulate Matter in the Sahel: Implications for Air Quality and Respiratory Health, in press Geohealth.
- Gueye, M. and Jenkins, G.S., 2019. Investigating the sensitivity of the WRF-Chem horizontal grid spacing on PM10 concentration during 2012 over West Africa. Atmospheric environment, 196, pp.152-163.
- Toure, N, Gueye, R., Diokhane, A., Jenkins, G. S., Li, M., Drame, M., Coker, K. A. R., Thiam, H. (2019), Observed and Modeled Seasonal Air Quality and Respiratory Health in Senegal during 2015 and 2016, Geohealth, DOI: 10.1029/2019GH000214
- Marone, A., Coumba Touré Kane Malick Mbengue , Gregory S. Jenkins, Demba Ndao Niang, Mamadou Simina Dramé, Jeremy M. Gernand, 2019. Characterization of Bacteria on Aerosols from Dust Events in Dakar, Senegal, West Africa
- Jenkins G. S. McCauley, Thompson, T, Gregory S. Jenkins, Quantifying the exposure of unhealthy to hazardous PM2.5 and PM10 concentrations to adult and children populations in Senegal during four significant dust events, (work in progress)

### **Other important Manuscripts linking health and dust**

- Ardon-Dryer, K., Mock, C., Reyes, J. and Lahav, G., 2020. The effect of dust storm particles on single human lung cancer cells. Environmental Research, 181, p.108891.
- Bauer, S. E., Im, U., Mezuman, K., & Gao, C. Y. (2019). Desert Dust, Industrialization, and Agricultural Fires: Health Impacts of Outdoor Air Pollution in Africa. Journal of Geophysical Research: Atmospheres, 124(7), 4104-4120.
- Chen, P.S., Tsai, F.T., Lin, C.K., Yang, C.Y., Chan, C.C., Young, C.Y. and Lee, C.H., 2010. Ambient influenza and avian influenza virus during dust storm days and background days. Environmental health perspectives, 118(9), pp.1211-1216.
- de Longueville F., Hountondji, Y-C. Ozer, P., Marticorena, B., Chatenet, B., & Henry, S. (2013). Saharan Dust Impacts on Air Quality: What Are the Potential Health Risks in West Africa?, Human and Ecological Risk Assessment. An International Journal, 19:6, 1595-1617, DOI: 10.1080/10807039.2012.716684
- Heft-Neal, S., Burney, J., Bendavid, E., & Burke, M. (2018). Robust relationship between air quality and infant mortality in Africa. Nature, 559(7713), 254.
- Kellogg, C. A., Griffin, D. W., Garrison, V. H., Peak, K. K., Royall, N., Smith, R. R., & Shinn, E. A. (2004). Characterization of aerosolized bacteria and fungi from desert dust events in Mali, West Africa. Aerobiologia, 20(2), 99-110.

- Landrigan, P. J., Fuller, R., Acosta, N. J., Adeyi, O., Arnold, R., Baldé, A. B., ... & Chiles, T. (2018). The lancet commission on pollution and health.391(10119), 462.  
doi:10.1016/S0140 6736(17)32345-0
- Zhang, X., Zhao, L., Tong, D., Wu, G., Dan, M., & Teng, B. (2016). A systematic review of global desert dust and associated human health effects. Atmosphere, 7(12), 158.

### **Relevant Links**

New Research Links Air Pollution to Higher Coronavirus Death Rates

<https://www.nytimes.com/2020/04/07/climate/air-pollution-coronavirus-covid.html>

Solomon Bililign: COVID-19 crisis shows clear need for commitment to improving air quality

[https://www.greensboro.com/opinion/columns/solomon-bililign-covid-19-crisis-shows-clear-need-for-commitment-to-improving-air-quality/article\\_a70a8fcf-e9bd-5ada-99c7-d4920ea82b70.html](https://www.greensboro.com/opinion/columns/solomon-bililign-covid-19-crisis-shows-clear-need-for-commitment-to-improving-air-quality/article_a70a8fcf-e9bd-5ada-99c7-d4920ea82b70.html)

Coronavirus detected on particles of air pollution

<https://www.theguardian.com/environment/2020/apr/24/coronavirus-detected-particles-air-pollution>