

Breathless Cities: Rethinking Cardiovascular Health in the Age of Pollution

In the labyrinth of global health, a paradigm shift is long overdue. For decades, we've clung to the traditional villains — smoking, diabetes, hypertension, and hyperlipidemia — as the principal architects of cardiovascular and cerebrovascular diseases. Yet, a nuanced and scientifically rigorous revelation is emerging, challenging the very bedrock of our medical dogmas. Pollution, an insidious force that has long eluded the spotlight, is asserting itself as a formidable adversary, one whose cumulative impact transcends the conventional boundaries of risk factors, enveloping entire populations in its toxic embrace.

The traditional risk factors, undeniably important, have held our attention for years. Smoking, diabetes, hypertension, and hyperlipidemia, undoubtedly significant contributors to the burden of cardiovascular diseases, affect approximately 10% of the population. However, in our singular focus on these factors, we have inadvertently perpetuated a blind spot that has left the majority of the global

population vulnerable to a more pervasive threat: pollution.

Consider the sprawling metropolis of New Delhi, where the weight of pollution hangs heavy in the air. The statistics are staggering—a stark contrast to the impact of traditional risk factors. While smoking, diabetes, hypertension, and hyperlipidemia undoubtedly play their part, the entire population of New Delhi is ensnared by the toxic tendrils of pollution. The cumulative risk burden of pollution on cardiovascular and cerebrovascular

health far surpasses the combined influence of all other established risk factors.

This revelation demands a recalibration of our understanding and an acknowledgment that we are not advocating ignorance of traditional risk factors. Instead, we are spotlighting a new adversary whose silent infiltration into our daily lives

This isn't a call for abandoning our understanding of traditional risk factors; it's a plea for a more holistic approach that acknowledges pollution as an integral player in the complex web of cardiovascular and cerebrovascular diseases.

BASHIR™.035 endovascular catheter

Take the Complexity out of treating Pulmonary Embolism
Less time. Lower dose. Better outcomes.

Introducing the
BASHIR™ .035 Endovascular Catheter
with 0.035" guidewire compatibility

- Sophisticated mechanism of action
- Ease of placement
- Shorter procedure time

Caution: Federal (USA) law restricts these devices to sale by or on the order of a physician (RX Only). Prior to use, please refer to the Instructions for Use for complete product intended use and indications for use, contraindications, warnings, precautions, potential adverse events, and detailed instructions for use. Renderings for illustrative purposes. Photographs taken and on file at Thrombolex, Inc. Please contact your local Thrombolex representative for more information. TAP052 Rev. B

THROMBOLEX™
INNOVATIVE ENDOVASCULAR CATHETERS

demands immediate attention. Pollution isn't replacing these risk factors; it's amplifying them, creating a compound risk burden that threatens the health of populations on an unprecedented scale.

In our myopic pursuit of conventional threats, the enormity of the pollution problem has evaded scientific scrutiny, sidestepping discussions, rigorous investigations, and updates in research. The repercussions are dire, as we continue to grapple with a global health crisis that has gone largely unrecognized. It is time to recognize that while traditional risk factors are not negligible, the cumulative impact of pollution casts a broader and more ominous shadow over our global health landscape.

The alarming truth is that while we meticulously examine the intricacies of traditional risk factors, an entire planet is suffocating under the weight of pollution-induced health crises. The clock is ticking, and the toll of inaction is too dire to contemplate. Our breathless cities can be revived.

The World Health Organization (WHO) must heed this call and elevate pollution to its rightful place as the paramount focus of global health initiatives. This isn't a call for abandoning our understanding of traditional risk factors; it's a plea for a more holistic approach that acknowledges pollution as an integral player in the complex web of cardiovascular and cerebrovascular diseases.

Sameer Mehta, MD, FACC

Dr. Sameer Mehta is a cardiologist with expertise in creating population-based acute myocardial infarction programs and advancing global ST-elevation MI care through his founding of Lumen Global and the Lumen Foundation.



Yashendra Sethi, MD

Dr. Yashendra Sethi is a medical doctor and research fellow at the Lumen Foundation, as well as a cofounder of PearResearch, Innores International, and Vigyaved Healthcare. Dr. Sethi serves as an editor for various reputed medical journals, including Diabetes and Metabolic Syndrome: Clinical Research & Reviews, BMC Public Health, PLOS ONE, GJMS, and The Evidence.



To embark on this transformative journey, we must dismantle the existing paradigm that has shackled our understanding of cardiovascular and cerebrovascular diseases. Pollution, as the new arch-nemesis, demands a comprehensive and urgent response. Policies worldwide must pivot towards stringent measures to curb pollution, with a concerted effort to reduce emissions, invest in sustainable technologies, and establish green urban planning.

The alarming truth is that while we meticulously examine the intricacies of traditional risk factors, an entire planet is suffocating under the weight of pollution-induced health crises. It is time for the scientific community, policymakers, and global health organizations to realign their focus, prioritize pollution as the overarching threat, and steer humanity away from the precipice of an avoidable health catastrophe. The clock is ticking, and the toll of inaction is too dire to contemplate. Our breathless cities can be revived, but the journey starts with acknowledging the true magnitude of the problem and embracing a future where clean air is not a luxury but a fundamental right for all.

The Lumen Foundation is working continuously to contribute to global healthcare. We have blamed the traditional risk factors for cardiovascular diseases for too long and have missed the contribution of pollution as a risk factor for various diseases. With the worsening condition of air quality in major cities, it is high time that we rethink our approach towards pollution at both administrative and clinical levels.

To know more and for any suggestions, please contact us at yashendrasethi@gmail.com. ■

Sameer Mehta, MD, FACC

*Yashendra Sethi, MD
Lumen Foundation, Miami*



CV ASC REGISTRY SUITE™

**THE FIRST UNIFIED
REGISTRY FOR
CARDIAC PROCEDURES
PERFORMED IN THE
AMBULATORY SETTING**

Implement this easy-to-use solution for measuring patient care and outcomes that helps ensure patients are receiving the right care, at the right time, in the right setting.

Visit
**CVQuality.ACC.org/
ASCRegistry**
to learn more.

