

# A MINUTE OF CLEAN AIR



## Manifesto of São Paulo State medical class



**MEDICINE AND SOCIETY**

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On the 73<sup>rd</sup> anniversary of the United Nations, São Paulo Association of Medicine (APM - Associação Paulista de Medicina) and Health and Sustainability Institute (Instituto Saúde e Sustentabilidade) announce the **Public Manifesto of the Medical Class of São Paulo State “A Minute of Clean Air”** (*Manifesto Público da classe médica do estado de São Paulo “Um Minuto de Ar Limpo”*) at the launching of the *Medicine and Society Campaign*. This manifesto addresses the positioning of São Paulo medical professionals about the urgent need to defend and safeguard the health of the population against the harms and deaths caused by the worrisome air pollution seen in several cities in São Paulo State.

According to recent study conducted by the Institute of Health and Sustainability (data not yet published), death estimates in the metropolitan region of São Paulo (MRSP) can reach 51,367 individuals if the air pollution resulting from the fine inhalable pollutant MP<sub>2.5</sub> remains unchanged until 2025. This number is equivalent to 6,421 deaths per year or 18 deaths per day in the MRSP, at productivity loss cost of R\$ 22.3 billion. In addition to the high mortality rate, there would be 31,812 public hospitalizations due to respiratory and cardiovascular diseases, as well as to lung cancer, which refer to 3,977 public hospitalizations per year or 11 hospitalizations per day, at the cost of R\$ 58.7 million for the Unified Health System - public hospitalizations represent 50% of total hospitalizations in São Paulo State. This is a serious public health issue, since it exceeds the number of Brazilian deaths due to traffic accidents, or breast and prostate cancer.

Data released by the Pan American Health Organization (PAHO) in 2018 showed that Brazil accounts for 50,000 deaths per year due to air pollution - WHO has announced 8 million deaths per year worldwide. According to PAHO, air pollution is responsible for 35% deaths associated with respiratory diseases, 15% deaths related to cerebrovascular diseases, 44% deaths due to heart disease, 6% deaths linked to lung cancer, and for 50% child pneumonia cases. Children are affected by air pollution even before they are born, since air pollution impairs fetal development, besides leading to higher intrauterine growth restriction rates, low birth weight, and even to fetal and neonatal death (PAHO, 2018).

Air pollution, or contaminated air, is acknowledged as the greatest environmental risk to human health. In 2013, it became the fourth modifiable risk factor associated with death by non-communicable chronic disease; it is preceded by food risk, blood pressure and smoking.



According to the “2015 Air Quality Report of São Paulo State” (CETESB, 2016), for at least 16 years, the State has recorded mean annual levels of inhalable particulates 2 to 5 times higher than the quality air parameters recommended by WHO for health protection purposes.

If this pace does not change, Brazil will not be able to meet the Sustainable Development Goal (SDG), which concerns health and air pollution:

**SDG 3.9 - Substantially reduce the number of deaths and diseases caused by hazardous chemicals and by air contamination/pollution (UN Brazil, 2015).**

*The position expressed by São Paulo medical class is pioneer in this field; it defends the Brazilian society and safeguards its health. Thus, these professionals give voice and visibility to the needs of the population before federal, state and local environmental agencies, which are responsible for decision-making processes focused on improving the quality of the air in our country.*

The Manifesto will be presented to the following entities: Presidency of the Republic, National Environment Council, Brazilian Institute of Environment and Renewable Natural Resources (IBAMA), Ministry of Environment, Ministry of Science and Technology, Brazilian Association of State Environmental Entities (ABEMA), National Association of Municipal Environmental Agencies (ANAMMA), São Paulo State Government, São Paulo State Environment Secretariat, State Environmental Technology and Sanitation Company (CETESB), São Paulo State Transportation Secretariat, São Paulo City Hall, São Paulo Municipal Environment Secretariat, São Paulo Municipal Transportation Secretariat, São Paulo Municipal Management Office, which are the main responsible for setting public policies and actions, as well as for responding for, and comply with, environmental laws focused on assuring air quality.

The document will also be sent to the Ministry of Health, National Health Council, São Paulo State Health Department, São Paulo Municipal Health Department and to federal, state



and local Legislative Chambers, by taking into consideration the prevention, surveillance and treatment of diseases caused by air pollution, respectively, as well as legislation advancements that can emerge in this field.



## **PUBLIC MANIFESTO A MINUTE OF CLEAN AIR**

The aim of the manifesto is to call for greater effectiveness in public policies focused on improving the quality of the air in Brazilian cities and the current legislation.

It is worth highlighting two topics currently undergoing discussion and approval by the National Environment Council - CONAMA:

**1. THE UPDATE OF THE NATIONAL AIR QUALITY STANDARDS - REVISION OF CONAMA RESOLUTION 03/1990: will be voted in plenary soon.**

**2. THE UPDATE OF PROCONVE - REVISION OF RESOLUTION 18/1986: under discussion at the Technical Chamber.**

### **1. THE UPDATE OF THE NATIONAL AIR QUALITY STANDARDS - REVISION OF CONAMA RESOLUTION 03/1990**

The Technical Chamber of Environmental Quality and Waste Management of the National Environment Council (CONAMA) started revising the 28-year-outdated Resolution 03/90 in 2014. However, the process was interrupted due to lack of consensus in the end. Although it was resumed in 2017, an INEFFICIENT draft was approved after a final vote. This draft was against the best and latest scientific knowledge and the advancements promulgated and experienced by several countries, including neighbor countries in South America (BRASIL, 1990; BRASIL, 2018a; 2018b; 2018c).

After forming a single block led by the Brazilian Association of State Environmental Entities (ABEMA), state environmental bodies (accountable for the change) - in association with representatives of the economic sector and in partnership with the National Association of Municipal Environmental Agencies (ANAMMA), the Ministry of the Environment and with the Ministry of Health - have established obstacles to the necessary improvements. Just like a steamroller, they crushed the hope of safeguarding the health of the population and defending their rights (BRASIL, 2018a; 2018b; 2018c).



Supported by the Ministry of Environment, these entities did not even explain their arguments and refused to document them, fact that was approved and celebrated by the economic sector. They claimed their limitation to carry out air quality management processes focused on readjusting the most stringent quality standards, either due to lack of budget, to their inability to comply with the existing laws and resolutions or to regulate and control emission reduction.

**The approved draft is INEFFICIENT in several aspects:**

**1 The scope of fundamental protection for two basic life essentials: health and environment.**

According to the Attorney General of the Republic, Raquel Elias Ferreira Dodge (in video recorded (BRASIL, 2018e) at the opening of the public hearing entitled “Evaluation of Conama draft proposition on air quality standards for Brazil and its consequences for the environment and health - revision of Resolution 03/90”, promoted by the Federal Public Ministry in association with PROAM and with the Institute of Health and Sustainability on May 24, 2018), “*The public power has the constitutional duty to care for both health and environment, and the nature of fundamental rights does not acknowledge the logic of negotiation as if the mere accommodation between these rights and the interests of others was possible – therefore, its protectiveness should be as extensive as possible.*” And she added: “*Indeed, any regulation unable to assure extensive and effective protection to this right will not be supported by our constitutional order.*” Accordingly, the Representative of the Nucleus of Citizenship and Human Rights of São Paulo State Public Defender’s Office - Tiago Fensterseifer - pointed out that, from the legal viewpoint, the lack of governmental actions focused on implementing air quality standards evidences the violation of these fundamental rights and is, therefore, susceptible to examination.

The Report entitled “Evaluation of Conama draft proposition on air quality standards for Brazil and its consequences for the environment and health - revision of Resolution 03/90” thoroughly explains draft-inefficiency issues addressed in the aforementioned Public Hearing -



<http://www.mpf.mp.br/regiao3/atos-e-publicacoes/audiencias-publicas/arquivos/relatorio-conclusivo-audiencia-publica.pdf> (BRASIL, 2018d).

Due to the ineffective draft approved by CONAMA, the Institute of Health and Sustainability, in partnership with civil society organizations such as Cianorte Environmental Protection Association (APROMAC); BH in Cycle; Greenpeace; International Council on Clean Transportation (ICCT); Brazilian Consumer Protection Institute (IDEC); Global Call For Climate Action (GCCA); Alana Institute; Our BH Movement; Anjo Bike Network; Cities' Network for Just, Democratic and Sustainable Territories; Our São Paulo Network; and Toxisphera, signed the “Manifesto in Defense of Air Quality Standards” presented during the preparatory meeting for the First Global Conference on Air Pollution and Health hosted by WHO on September 25 and 26, 2018, in Brasília - <https://www.saudeesustentabilidade.org.br/noticias/ongs-apontam-urgencia-para-a-mudanca-dos-padroes-de-qualidade-do-ar-em-manifesto/> (INSTITUTO SAUDE E SUSTENTABILIDADE, 2018)

## **2 The establishment of deadlines to meet the safest thresholds for health protection recommended by the World Health Organization**

The inefficient draft (just as São Paulo Decree 59113/2013) was approved without setting deadlines for the establishment of new air quality standards.

The Resolution of the National Environment Council, CONAMA 03/1990, which established the national air quality standards in force to the present time, was implemented 28 years ago and does not count on updated scientific knowledge on the subject – it proposes such update based on intermediate and progressive goals until reaching the final standard of air pollution levels recommended by WHO, although without deadlines to implement the necessary changes. The pollution standard to be approved and put in force is very high, fact that will allow continuous air degradation at high concentrations - up to almost three times the parameters recommended by WHO.

If the air pollution levels remain as they are nowadays, estimates for 2030 depict 250,000 early deaths and 1 million hospitalizations, as well as public expenditure of more than R\$ 1.5 billion, in values corresponding to 2011 (RODRIGUES et al. al, 2016).





WHO published the *Air Quality Guidelines, an Update 2005* (WHO, 2006), which suggested air quality parameters indicating the public health risk threshold. These suggestions can be used to boost air pollution control programs and as scientific reference in the official risk communication process - either through periodic official bulletins or annual air quality reports issued by environmental agencies. However, they are not adopted in Brazil, since the national and São Paulo State air quality standards are outdated and significantly higher than the ones established by WHO.

There are no safe pollutant concentration thresholds for non-disease development, since the risk of developing diseases is also calculated based on individuals' susceptibility and vulnerability. Thus, the minimum thresholds recommended by WHO guarantee the reduction of disease-development risks or protection for most of the population. Studies available in the literature have already revealed the need of revising the minimum thresholds established by WHO in 2005.

### **3 Clear and transparent communication with the public about the actual air quality conditions.**

The population will keep on receiving outdated or unrealistic notifications, as long as it takes into consideration the current air quality standards. The Institute of Health and Sustainability carried out the research entitled "*Air Quality in São Paulo State 2015 – According to the Health field perspective*", which analyzed data published by São Paulo State Environmental Company (CETESB), based on air quality concentrations recommended by WHO. The aforementioned research showed, in practice, the disparities between the presented results and their real impacts on health (INSTITUTO SAÚDE E SUSTENTABILIDADE, 2017).

The annual air quality standard for Particulate Matter (MP<sub>10</sub>) adopted by the 2013 São Paulo Decree (120 mcg/m<sup>3</sup>) was exceeded in that year by only 5 automatic stations (9.6%) in the state. However, based on the standard recommended by WHO (50 mcg/m<sup>3</sup>), it is possible seeing that 48 automatic stations (92%) exceeded this value. This outcome reveals the high air pollutant concentrations and their consequent damage to human health, which is inadvertently





left unprotected by São Paulo State government, since both the population or the Annual Air Quality Report readers do not know about this information.

If there was proper communication, parents of asthmatic children, or even their pediatricians, could use such information to choose a home, or school, located in a more favorable environment for their full life.

#### **4 Adaptation and establishment of critical air quality levels based on damages to human health.**

The Attention, Alert and Emergency levels set by the draft are very high and will hardly be reached in order to require immediate protective measures towards the population. Most importantly, they cannot be adopted in experimental studies with humans. The critical emergency level adopted by the European Union is lower than the air quality standards set by the draft and by São Paulo State in 2013 (AIRPARIF, 2017).

#### **5 Licensing levels based on the current high air pollution standards and permissiveness to pollute even in saturated sites.**

The draft also legitimates a serious matter: based on high air quality standards, industries will be able to get operating licenses to settle in, or to keep on operating, in the same way in places whose atmospheric basin is already saturated, thus enabling the continuous pollution of saturated areas at routine health-damaging contamination levels above the guideline-values determined by WHO.

**It is understood that the public power has the duty to assure the fundamental rights to health and environment. This responsibility is non-negotiable, it must not admit concessions, and actions contrary to it are reckless and, above all, unconstitutional.**



## 2. THE UPDATE OF PROCONVE - REVISION OF RESOLUTION 18/1986

The maximum vehicle-related pollutant emission levels established by the Motor Vehicle-Related Air Pollution Control Program (PROCONVE) are currently under revision by CONAMA. The P-7 standard (corresponding to the European standard Euro V) is in force for heavy vehicles (trucks and buses) in Brazil since 2012.

Heavy vehicle (trucks and busses) fleets are highly-effective and strategic targets (if one takes into consideration the definition of public policies focused on reducing pollutant emissions), since they represent approximately 5% of the Brazilian road fleet and account for approximately 80% and 71% of vehicle-related pollutant (MP and NO<sub>x</sub>, respectively) emissions – MP and NO<sub>x</sub> are the most harmful pollutants to human health. In addition, most Brazilian cities do not meet the recommendations by WHO (ALVAREZ Jr, 2018; MILLER and FAÇANHA, 2016). The P-8 standard (corresponding to the European Standard Euro VI) can reduce emissions by up to 90%.

On October 2, 2018, the aforementioned Technical Chamber of Environmental Quality and Waste Management of CONAMA voted the draft text in order to define the new phase of the vehicular emission control program focused on buses and trucks. ABEMA and ANAMMA voted in line with representatives of heavy-duty vehicle manufacturers and were successful in extending the deadline for the implementation of new rules to 2023. Again, there was no technical explanation or justification for the extension of the deadline, which will have increased negative impact on human health (BRASIL, 2018c). According to the initial proposition by CETESB (technical body that guides the public policy), the new phase-implementation deadline should be as short as possible (in 2019) in order to enable the lowest pollutant emissions and protect the health of the population.

According to the study conducted by the International Council on Clean Transportation (ICCT) (MILLER and FAÇANHA, 2016), the implementation of Euro VI (Phase P-8 in Brazil) for heavy-duty vehicles would prevent 74,000 premature deaths resulting from the exposure to MP<sub>2.5</sub> in Brazilian urban areas, for 30 years - from 2018 to 2048. According to the aforementioned study, each year of P-8 standard implementation delay after 2018 will result in additional 2,500 premature deaths per year, i.e., the newly-approved standard to be



implemented in 2023 (4-year delay) represents the early loss of more than 10,000 Brazilian lives.

The major automotive markets - the United States, Canada, Europe, Japan, India, South Korea, Turkey, and Mexico – already adopted the Euro VI technology (PROCONVE P-8 Phase), whereas China proposed standards to be implemented in 2020. Some cities in Latin America, such as Santiago and Bogota, have already committed to Euro VI urban buses. In addition, manufacturers of large vehicles in Brazil (transnational companies) have already been producing vehicles equipped with the most advanced technology since 2012, besides meeting the requirements of Latin American countries such as Chile and Colombia, through exports from Brazilian production units (MILLER and FAÇANHA, 2016).

In addition, both bodies that voted against the establishment of deadlines to update air quality standards - claiming that there was no support from policies focused on reducing pollutant emissions to enable, under their responsibility, more restrictive pollutant concentration levels than the ones advocated by WHO - also voted for the extension of the P-8 implementation deadline, which contradicts their previously alleged needs, or worse, goes against their commitment to protect the environment and to care for the interests of the population.

In light of the seriousness of the situation, the medical class of São Paulo State , in response to the needs of the population and aiming at protecting peoples' health, herein supports: i) the impugnation and modification of the draft of Resolution 03/90, before its final approval by CONAMA (to be voted in plenary), in order to enable air quality standards with fixed implementation deadlines, appropriate critical episodes, and communication accessible to the population; and, ii) the implementation of P-8 for heavy-duty vehicles in 2020 (as proposed by CETESB, Ministry of Environment, Ministry of Health and civil society organizations in the Technical Chamber) and of control instruments necessary to reduce emissions in order to protect the health of the population and to enable a healthy environment.



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## São Paulo Association of Medicine

Non-profit body that represents and defends physicians from São Paulo. Besides the headquarters in the state capital and a country club in Serra da Cantareira, the association has 75 active regional offices distributed in 14 districts throughout the state. It is federated to the Brazilian Association of Medicine and has more than 30,000 members, including physicians and medical students.

Among other activities, the association contributes to the elaboration of health and medical assistance-qualification policies, besides striving to value physicians working in the public (Unified Health System) and private (health insurance) spheres. It also promotes scientific events and continued medical education activities, offers several services to members, maintains partnerships with companies that grant exclusive discounts to physicians on a variety of products and services, and takes several social responsibility actions

## Health and Sustainability Institute

The Institute of Health and Sustainability is a Civil Society Organization of Public Interest that was founded in December 2008. Its main aim is to contribute to the healthy living in large cities, based on the preservation and promotion of human health through projects involving the most diverse social actors such as government agencies, civil society organizations, companies, teaching institutions, communities, among others.

