Improving Respiratory Health in Europe

ERS Presidential Summit

Concept and Concrete Aims

Respiratory diseases are largely preventable but overwhelmingly contribute to Europe's health challenges, with 42.7 million people living with asthma, over a quarter of which are children and young people, and over 40.4 million with chronic obstructive pulmonary disease. Moreover, Europe's societal cost of nine major lung conditions amounted to 1.4 trillion euros in 2021 alone.[1]

Disadvantage during childhood such as prematurity, low socioeconomic status, lack of breastfeeding, early life tobacco or air pollution exposure, or childhood diseases such as asthma, respiratory infections and allergies can increase risk of impaired lung health and development. However, factors such as high levels of physical activity, healthy diet, favourable environments, vaccination, early detection and disease management can have a positive impact on lung development, potentially improving respiratory health over time.[2]

The lungs are an incredible organ and a key indicator of overall health in young individuals and predicts healthy ageing.[3] Research shows that the lungs have an extensive ability to regenerate lost or damaged cells in response to injury,[4] and that lung function development is shaped, both positively and negatively, by individual and environmental factors throughout one's life.[5]

---

[1] Lung facts. 2024. International Respiratory Coalition. https://international-respiratory-coalition.org/countries/europe/. Date last accessed: 4 October 2024

[2] Melen E, et al. Lung function trajectories: relevance and implementation in clinical practice. Lancet. 2024; (in press).

[3] Agustí A, et al. Lung function in early adulthood and health in later life: a transgenerational cohort analysis. The Lancet Respiratory Medicine. 2017; 5: 935-945.

[4] Kotton, D. N., & Morrisey, E. E. (2014). Lung regeneration: mechanisms, applications and emerging stem cell populations. *Nature medicine*, *20*(8), 822–832. https://doi.org/10.1038/nm.3642

[5] Melen E, et al. Lung function trajectories: relevance and implementation in clinical practice. Lancet. 2024; (in press).

Prevention should be considered holistically, encompassing primary, secondary, and tertiary levels. Ensuring people live in healthy environments, have access to early detection services, and receive timely interventions is essential. Additionally, for those who do fall ill, proper disease management is crucial to reduce suffering, slow disease progression, and prevent the onset of co-morbidities. Importantly, prevention should not be siloed, having access to care and disease management is of utmost importance, but sending patients back to unfavourable environments will only lead to further exacerbation and hospitalisation.

The burden of respiratory diseases cannot be solved by traditional measures. Further, the health effects of climate change, rising antimicrobial resistance and an ageing population exacerbate the situation. However, innovations in organisational, social, and research practices, artificial intelligence, precision medicine, and genomics offer new opportunities and potential solutions. Preventing disease progression also needs to be considered in the context of innovation such as remote monitoring, artificial intelligence, accessible medical devices, and novel medicines.

Prevention is a core focus of the European Respiratory Society's strategy. Concurrently, in July 2024, Ursula Von der Leyen highlighted preventative health in her political guidelines for the next European Commission.[6] She subsequently tasked the incoming Commissioner for Health and Animal Welfare to step up the work "on preventative health ensuring a comprehensive approach to health promotion and disease prevention across the life course".[7] She adds further in the letter that "investing in effective prevention measures will reduce the burden of non-communicable diseases, helping to lighten the load on healthcare systems and support healthy longevity".[8]

Ahead of the Fourth High-level Meeting of the UN General Assembly on the prevention and control of NCDs in September 2025, the European Respiratory Society is working with the WHO Regional office for Europe to produce the first ever WHO regional report on Chronic

[6] von der Leyen U. Europe's Choice. Political Guidelines for the next European Commission 2024-2029. 18 July 2024. https://commission.europa.eu/document/e6cd4328-673c-4e7a-8683-f63ffb2cf648_en

[7] von der Leyen U. Mission Letter. Commissioner-designate for Health and Animal Welfare. 17 September 2024. https://commission.europa.eu/document/download/b1817a1b-e62e-4949-bbb8-ebf29b54c8bd_en?filename=Mission%20letter%20-%20VARHELYI.pdf

[8] von der Leyen U. Mission Letter. Commissioner-designate for Health and Animal Welfare. 17 September 2024. https://commission.europa.eu/document/download/b1817a1b-e62e-4949-bbb8-ebf29b54c8bd_en?filename=Mission%20letter%20-%20VARHELYI.pdf

Respiratory Diseases. Moreover, at the 156th session of the WHO Executive Board a group of Member States proposed a draft decision *Promoting and prioritizing an integrated lung health approach,* urging Member States to "develop integrated national policy for an integrated approach to lung health…ensuring engagement from all relevant sectors including health, environment, labour, education, and finance."[9]

The Summit aims to bring together experts, government representatives, public health, health care professionals, and patients from across Europe to:

1. Take stock of successes in respiratory disease prevention
2. Highlight the gaps (such as in data and research), including as identified by the WHO-Europe Chronic Respiratory Disease Report
3. Identify the initiatives health policy makers could consider.
4. Determine new processes, policies, products or programmes that respond to the burden of respiratory health

[9] Promoting and prioritizing an integrated lung health approach. 2025, World Health Organisation. EB156/CONF./5.