

Project N° : 874753 Start Date : 1.01.2020	 REMEDIA IMPACT OF EXPOSOME ON THE COURSE OF LUNG DISEASES
Topic	Impact of the exposome on the course of lung diseases
Project Title	REMEDIA
WP number	7
Deliverable Number and Title	7.5 A public health action plan to better predict respiratory diseases
Responsible Partner Name	Inserm
Nature R-report O-other (describe)	Report
Dissemination Level	P
Delivery Month Planned	M60
Actual Delivery Date	August 2025
Status of Deliverable	Partially achieved

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1. Context

The aim of this deliverable (which is in the framework of Task 2.2.2) was to produce a Public Health Action Plan to better predict and prevent respiratory disease risk related to exposome, targeted at a non-specialist audience and which should serve to inform stakeholders and decision-makers. As the project had experienced several severe delays on notably the work of the cohorts, results obtained at the end of the project are still preliminary and do currently not allow to derive a Full Public Health Action Plan.

However, we would like to deliver a first set of indications for recommendations based on the results obtained so far in the framework of REMEDIA.

2. Recommendations

The following recommendations are thus based on the results obtained within REMEDIA's different workpackages and had been presented during the final public symposium meeting held in Brussels in June 2025: *REMEDIA's results from a clinical perspective* by Ralph Epaud (CHIC).

- Cohort studies as well as the animal exposure studies have indicated that exposure to air pollution during pregnancy is a risk for respiratory disease later in life.

➔ Recommendations:

- consider limitation of air pollution during pregnancy (also in the rural areas), in particular during pollution peaks
- promote the development and protection of green areas
- promote a ban on cigarette smoking, (including) passive smoking

References:

- <https://link.springer.com/article/10.1007/s11869-024-01611-5>
- <https://theses.fr/s305570>
- <https://h2020-remedia.eu/wp-content/uploads/2025/07/Alan-rural-PM-NO2.pdf>
- <https://h2020-remedia.eu/wp-content/uploads/2025/07/Alan-Greenness.pdf>
- <https://pmc.ncbi.nlm.nih.gov/articles/PMC10595797/>

- Cohort studies as well as the animal studies have shown association between exposures and a more severe disease in children with CF

➔ **Recommendation:** promote the prevention of passive smoking and raise awareness in its impacts on particularly persons with chronic lung diseases

References:

- <https://h2020-remedia.eu/toolbox/integration-of-multiple-datasets/#1752755846450-880407ed-7d83>
- <https://www.sciencedirect.com.proxy.insermbiblio.inist.fr/science/article/pii/S0761842524000639>
- [https://www.cysticfibrosisjournal.com/article/S1569-1993\(24\)01562-5/abstract](https://www.cysticfibrosisjournal.com/article/S1569-1993(24)01562-5/abstract)

- Cohort studies have identified a potential role of air pollution in the prognosis of CF and detected air pollution from different sources as an important risk factor for COPD

➔ **Recommendations:**

- raise awareness of environmental risk factors beyond smoking
- support the importance of avoiding chronic exposure of ambient air pollutants
- consider secondary pollutants production (ozone O₃ oxidized VOCs and secondary organic aerosols)

References:

- <https://h2020-remedia.eu/wp-content/uploads/2025/07/cantuaria-et-al-source-specific-air-pollution-and-risk-of-chronic-obstructive-pulmonary-disease-a-pooled-cohort-study.pdf>
- <https://www.sciencedirect.com/science/article/abs/pii/S0304389423026249?via%3Dihub>

3. Conclusion

As mentioned above, the research on most of the results is still ongoing and data of REMEDIA will continue to be exploited in the coming months. Publications are currently being written or will be written in the near future with publication coming up next year. This will allow to deepen the knowledge on the impact of the exposome on chronic lung diseases, especially on CF and COPD and eventually lead to solid and detailed recommendations in the future that would then need to be taken up by notably policy makers and public authorities.