



CHRONIC RESPIRATORY DISEASES (CRD) IN AFRICA

Identifying social determinants and formulating
appropriate, strategic responses

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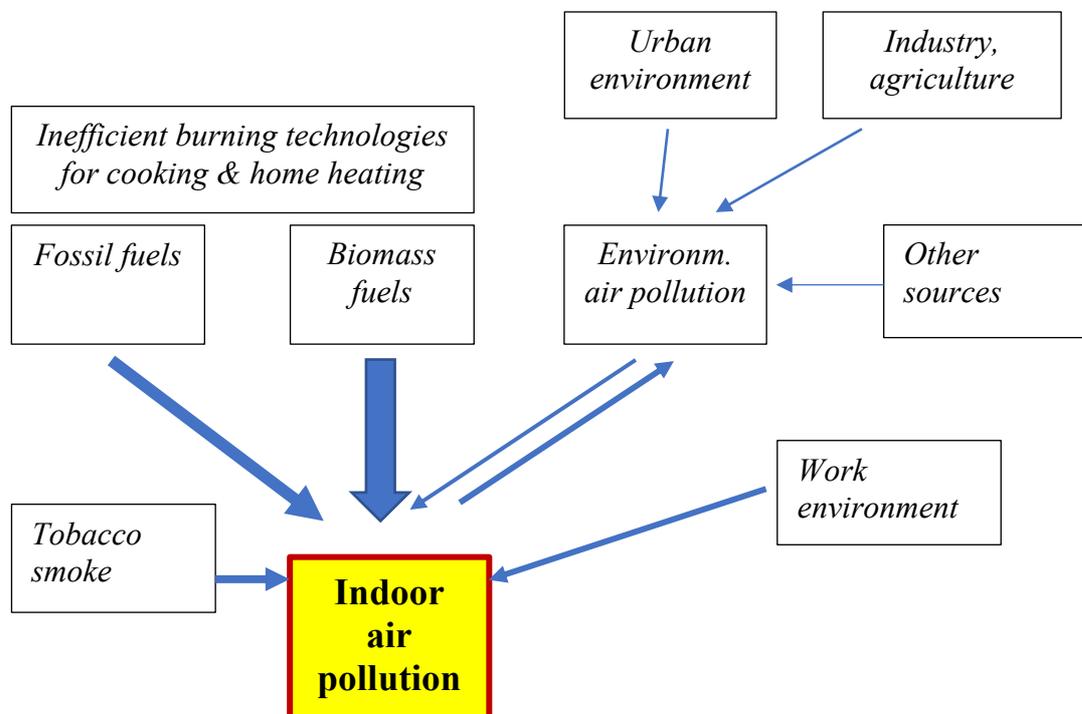
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EXECUTIVE SUMMARY

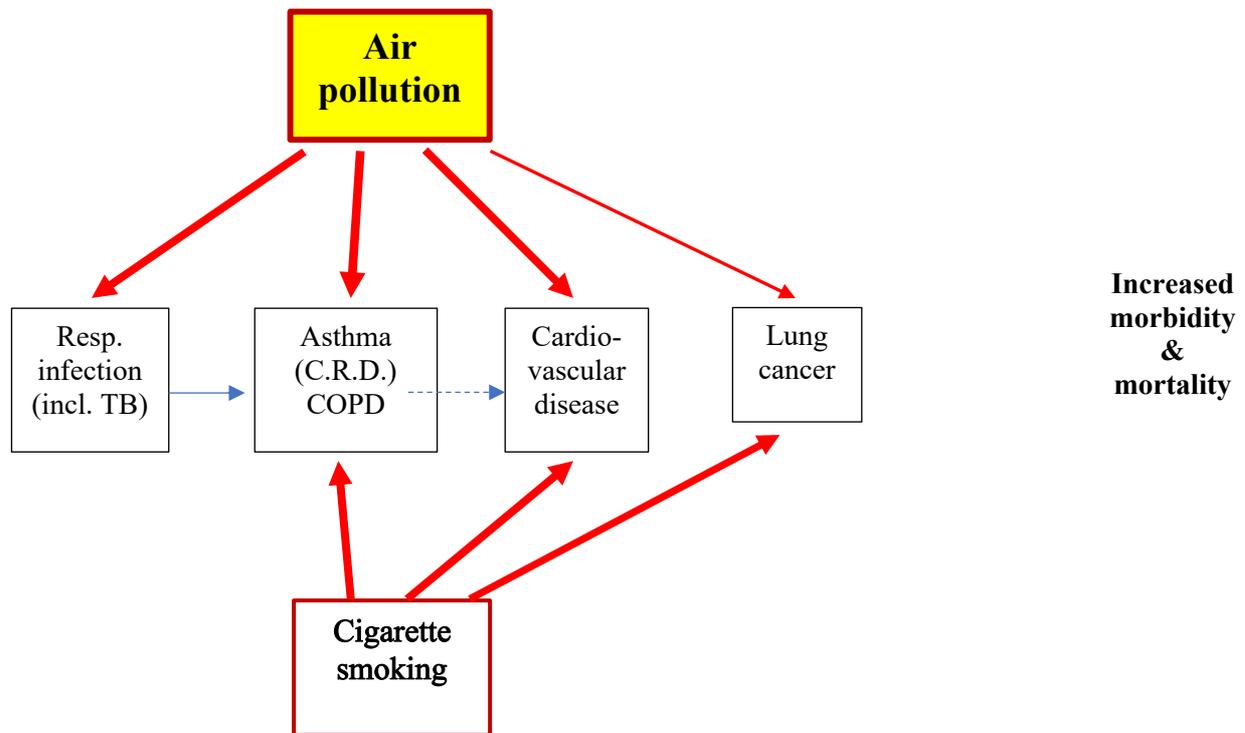
Chronic respiratory diseases (CRD – in this note restricted to *bronchial asthma* and *chronic obstructive pulmonary disease* or COPD), the entry point to the subject of this note, are an underestimated and largely neglected problem in Sub-Saharan Africa. *Underestimated* because frequency and severity are much higher than commonly intuited: several prevalence surveys on asthma yield figures of 4-14%, tending to be higher in urban environments, and for COPD results range from 4 to 25%, with the higher figures in rural areas and higher age groups. *Neglected* because in most countries of interest (the 11 Belgian Cooperation partner countries in SSA¹) effective care for people suffering from CRD is mostly absent or highly defective. Especially frontline health services are devoid of knowledge and tools to assist people suffering from CRD.

The avoidable (non-genetic) fraction of the CRD burden can be attributed to several physical, chemical, social, cultural, demographic and biological determinants, in different causal layers and interconnected between them. Most visible among these is poor and worsening **air quality**, in its turn driven by socio-demographic phenomena leading to accelerating rural-to-urban migration and mobility needs, by industrial and agricultural pollution, fossil fuel driven transport, inadequate waste management, polluting electric power generation, but also, to a surprisingly high degree, composed of *indoor* air pollution caused by inefficient burning technologies of unclean fuels (fossil and biomass), mainly for cooking, and by tobacco smoke, combined with insufficient ventilation. While urban environmental air pollution appears to contribute to increasing incidence and exacerbations of bronchial asthma attacks, indoor air pollution is the main culprit of high rates of COPD in rural areas, affecting mainly women and young children, causing lung damage and negatively affecting normal lung development from the foetal stage and onwards.



¹ Mauritania, Senegal, Burkina Faso, Benin, Niger, Guinea, Democratic Republic of Congo, Rwanda, Burundi, Uganda, Mozambique. In the World Bank classification these are Low Income Countries, except Mauritania, Benin and Senegal, which are classified as Lower Middle Income.

Air pollution, indoors as well as outdoors, does not only contribute to induce and exacerbate CRD; it is also a major determinant of *infectious* respiratory disease (including pulmonary tuberculosis), cardiovascular disease and (lung) cancer. As such it is a background cause of multiple communicable and especially non-communicable diseases (NCDs), the relative importance of which is now increasingly being recognised.



Polluted air shortens lives and makes many lives more miserable than they ought to be. In this respect, insalubrious air is in the same class as insalubrious water, defective sanitation and child undernutrition. And it may come as a surprise to many, but Sub-Saharan Africa's air is among the most polluted of all continents.

Given the multitude of elements influencing the quality of air people breathe, it is not unexpected that air quality can be directly linked to a surprisingly great number of the Sustainable Development Goals (SDGs): SDGs 3, 5, 7, 8, 11, 12 and 13 are all involved, directly or indirectly². Given this extraordinarily broad field of application, one of the main challenges for action on improvement of air quality will have to consist in the formation of a widely shared and coherent *discourse*, centred on (1) a common understanding of public goods (ideally leading to the notion of 'the right to clean air'), (2) a forward-looking vision based on a correct historical understanding of the present situation ('where are we now and how did we come to this?') and (3) a vision of development that is adapted to present-day global, national and local challenges ('what should be the way forward, given what we now know, in this day and age?').

A second consequence of the multitude of influencing elements is that, in the search for solutions, there will be *no one size to fit all* local situations. Although certain 'blanket' measures, to be applied across

² SDG 3 (healthy lives and well-being), in the fields of NCDs, tobacco use and availability of relevant essential medicines; SDG 5 (gender equality) pertaining to women's contribution to household chores including the fetching of biomass fuels for cooking and the cooking itself; SDG 7 (affordable and sustainable energy for all), focusing on clean fuels and technology; SDG 8 (decent work for all), focusing on secure working environments; SDG 11 (safe, resilient and sustainable cities, including solid waste management and control of fine particulate matter levels in cities); SDG 12 & 13 (sustainable consumption/production and combating climate change), pertaining to greenhouse gas emissions and sustainable forest management.

the board, do exist (e.g., in the areas of tobacco control, cleaner fuels, fiscal measures encouraging reduction of fossil fuels use, ...), the most adequate sets of measures at local level will have to be informed by intelligent situation assessments. This will have to include, at least, *needs* assessment (technically defined); *technology* assessment (presently available vs. desirable technology); *demand* assessment (socially defined) and *stakeholder* assessment (power and influence differentials, who stands to gain, who stands to lose).

Regarding stakeholder assessment, a first attempt to map actors and organisations showing awareness of the problem and willingness to do something about it (in Africa) yields a somewhat surprisingly high number of ‘alliances’ at global and international level, many of them having some offshoots at national level (in Africa), though mostly in a dispersed manner and not (yet) leading to much action on the ground. To these can be added practical local initiatives, often by (inter)national NGOs, mostly introducing technological solutions like improved cooking stoves and more efficient fuels, with variable levels of success³.

Activating this potential will need an effort at **coalition building** at local, national and international level, aiming at synergy and complementarity through coordination – ideally in a consultative and participatory manner.

Minimal and feasible **actionable points** – beside the already mentioned coalition building and formation of a coherent narrative (preferably making optimal use of the SDG agenda) – include the following:

- Closing the existing gap for **CRD care** by integrating a basic effective CRD care package at frontline and referral level in the healthcare system: responding to unmet demand;
- Ensuring **clean air** in all environments through (1) improvement of energy efficiency; (2) facilitation/encouragement of clean fuel use; (3) introduction and/or enforcement of secure working conditions where needed;
- **Tobacco control** through strengthened implementation of WHO’s Framework Convention of Tobacco Control (FTCT);
- Initiating and strengthening of **community and patient engagement** for adequate attitudes and action.

In the spirit of this note it would not suffice to formulate a ‘shopping list’ of potential actions without providing shared **guiding principles** on which to base the selection and implementation of such interventions.

Although top-down blanket measures have their place in all this, it is strongly suggested to act on the basis of the following principle:

The more local the action to be undertaken, the more it should be based on specific local needs and demand assessment, ideally starting from existing but unmet demand. The postulated mechanism justifying this principle is that meeting unmet demand – combined with the provision of adequate and credible information – is more likely to create the necessary trust and confidence to go in search of upstream determinants, leading to the necessary preventive action. As the domain of prevention almost invariably involves difficult choices and behaviour changes, motivation is of the utmost importance.

A second principle, partly following from the previous one, is that a seemingly *a priori* low likelihood of immediate success is no reason for abandoning all action. Some goals take longer to achieve, but progress can be achieved in stages: ‘signalling’ the problem can be a necessary first step, putting it on the agenda and keeping it there, a second, and pushing the issue forward through constant monitoring can be necessary. It is good to keep in mind that the issues of chronic respiratory disease and air quality are far-ranging, touching upon numerous aspects of life and society. The problem is likely to be messy and complex and will require flexible attitudes and close follow-up in order to adjust to ever-changing circumstances.

³ A list of actors and organisations so far identified can be found in annex to the present note.

Finally, it would seem obvious that, in all this, the **healthcare sector** is well-placed to take the lead and, moreover, has to shoulder the responsibility to **lead by example**. The challenge appears to be urgent. Circumstances on the African continent are such that at present air quality is already among the worst on the planet, and further deterioration – and its consequences – is inevitable if adequate action is not undertaken. Clearly, henceforth this issue deserves to be a constant concern for international cooperation agencies like Enabel in dealing with Belgium’s African partner countries.