The state of COPD in Saudi Arabia



- ▶ **450,000 people** living with COPD¹*
- ► The number of people diagnosed tripled between 1990 and 2019²
- ► Causes **57% of respiratory** disease-related deaths^{2†}
- Costs over USD \$5,900 per patient per year^{3‡}

*2021 data †2019 data ‡2020 data

COPD is a highly debilitating and often fatal lung disease4

Chronic obstructive pulmonary disease (COPD), which includes emphysema and chronic bronchitis, is the third leading cause of death worldwide (excluding COVID-19).¹⁴ It deteriorates people's lung function – restricting their airflow, making it increasingly difficult to breathe and potentially affecting every facet of a person's life.⁴ The severity of the disease increases as it progresses and people with COPD can experience flare-ups that, when severe, require emergency hospital admission.⁴ However, appropriate care can improve lung health and quality of life for people with COPD.⁴

Challenges



Saudi Arabia has relatively high levels of tobacco use, and people may also be exposed to air pollution (which includes burning biomass fuels), both of which are risk factors for COPD. People also report a high frequency of other risk factors, including childhood respiratory infections.⁵



Poor awareness of COPD symptoms leads to delays in diagnosis. According to a population-based survey, only 16% of people with symptoms of respiratory distress consulted their primary care physician.⁶ At a clinical level, an expert reported underdiagnosis and misdiagnosis in primary care.⁷



There is limited access to spirometry, a globally recommended diagnostic

tool,⁴ with variable availability between hospital settings.⁸⁹ A population-based survey found that 56% of patients diagnosed with respiratory diseases overall (including COPD) had never been assessed by spirometry.⁶



Comprehensive care packages are not typically offered to people with COPD. In an interview, a clinician explained that once people are diagnosed, they may not be referred for pulmonary rehabilitation (a globally recommended intervention to promote physical activity⁴) or given different options for disease management.⁷

'Typically, people with COPD present in our practice late. Some are only detected in emergency departments when they have an acute flare-up.'

- Prof. Mohammed Al Ghobain

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How is COPD being prioritised?

National policies

Overall status: poor

There is no comprehensive plan for COPD and it is not mentioned in the non-communicable diseases strategy, although there is a target of reducing tobacco smoking (a risk factor for COPD) by 0.5% per year.¹⁰

Clinical guidelines

Overall status: moderate

The Saudi Health Council and the Saudi Thoracic Society are in the process of updating COPD clinical practice guidelines, which, according to an expert, are expected to be released in November 2024.¹¹

Data collection

Overall status: poor

There is no known national or prominent COPD registry.

Case study

The Saudi COPD Group¹² is a scientific and educational organisation working under the umbrella of the Saudi Thoracic Society. The group aims to raise awareness of COPD among healthcare professionals and increase public health education for COPD. Its activities include holding COPD conferences and scientific sessions throughout the year.

Policymakers must take action to:



expand and clarify the roles of community-based health professionals (including nurses and pharmacists) in helping people with COPD avoid risk factors that could exacerbate the disease. They could, for instance, provide advice and support for smoking cessation, and promote vaccination against respiratory infections



establish widespread campaigns to raise public awareness of COPD and its symptoms and risk factors



train primary care clinicians and provide tools, along with clear referral pathways to specialist care, to increase access to spirometry and pulmonary rehabilitation.

Contributors

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References

- Global Burden of Disease Collaborative Network. 2024. Global Burden of Disease Study 2021 (GBD 2021). Institute for Health Metrics and Evaluation (IHME)
- 2. Alqahtani JS. 2022. *PLOS ONE* 17(5): e0268772
- Boettiger DC, Lin, T.K., Almansour, M., Hamza, M.M., Alsukait, R., Herbst, C.H., Altheyab, N., Afghani, A. and Kattan, F. 2023. BMC Health Serv Res 23: 1381
- Global Initiative for Chronic Obstructive Lung Disease. 2024. Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease. GOLD
- 5. Alsubaiei ME, Cafarella PA, Frith PA, et al. 2018. Ann Thorac Med 13(3): 144-49
- Alqahtani JS, Aldhahir AM, Siraj RA, et al. 2023. PLoS One: 10.1371/journal. pone.0287565
- 7. Al-I ehebi R. 2024. Interview. 15/07/24
- Al Ghobain M. 2024. Interview. 03/05/24
 Alsubaiei ME, Cafarella PA, Frith PA, et al. 2015. Int J Chron Obstruct Pulm Dis 10: 2379-
- Ministry of Health Saudi Arabia. https://extranet.who.int/ncdccs/Data/SAU_B3_ National%20Executive%20Plan%20for%20NCDs%202014-2025.pdf [Accessed
- 11. Al Ghobain M. 2024. Personal communication by email: 04/07/24
- 12. Saudi Thoracic Society. https://saudithoracicsociety.org/copd/ [Accessed 16/09/24]