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ORIGINAL ARTICLE

A call for policy reform in COPD management in Malaysia: Expert opinions and recommendations

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ABSTRACT

Introduction: Chronic Obstructive Pulmonary Disease (COPD) is a leading cause of morbidity and mortality in Malaysia, yet it remains under-recognised as a national health priority. **Methodology**: This policy and practice review consolidates expert opinions from a multidisciplinary panel using structured surveys and face-to-face discussions. **Result**: It proposes actionable strategies for the Malaysian government and other key stakeholders to address critical gaps in COPD care. The recommendations focus on boosting disease awareness, ensuring equitable access to diagnostic and treatment resources, and prioritising COPD as a major non-communicable disease. **Conclusion**: Effective implementation of these recommendations could significantly improve patient outcomes and reduce disease burden nationwide.

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1. INTRODUCTION

Chronic obstructive pulmonary disease (COPD), a major chronic lower respiratory disease, remains a critical public health issue in Malaysia. In 2022, chronic lower respiratory diseases were the seventh leading cause of death in the country [1]. COPD also imposes a significant economic burden on the healthcare system. The annua indirect costs attributed to reduced work productivity and premature death are estimated at RM 7,020 per patient, representing roughly 34% of the average annual household income per capita [2,3].

In light of these challenges and the suboptimal management of COPD, a multidisciplinary expert panel convened to identify practical solutions. These insights, informed by clinical experience and policy understanding, highlight key gaps and propose strategies to improve COPD care in Malaysia. The government plays a central role in shaping national healthcare policy, resource allocation, and program implementation. Therefore, this article outlines specific policy-oriented recommendations that the government and relevant stakeholders may imminently consider enhancing COPD diagnosis, treatment, and long-term management nationwide.

2. METHODOLOGY

A multidisciplinary panel of thirteen experts was assembled to ensure diversity and representativeness across key fields relevant to COPD care—namely pulmonology, family medicine, cardiology, pharmacy, and public health. The selection was based on the participants' clinical leadership roles, contributions to national health strategies, and frontline experience with respiratory diseases in various healthcare settings (public, private, urban, and rural).

The panel's input was gathered through a structured survey consisting of eight open-ended questions. The responses were anonymised and analysed using a mixed-methods approach, combining quantitative response patterns with qualitative thematic analysis. This was followed by a facilitated in-person discussion that adopted a consensus-building model similar to the Delphi technique. Through moderated dialogue, differing perspectives were deliberated and harmonised into unified recommendations. Although not all viewpoints aligned perfectly, the process led to general consensus on the major gaps and actionable priorities in COPD care. Ethical review was not required, as the exercise did not involve patient data or experimental intervention.

3. RESULTS

3.1. Overall Satisfaction of COPD Management

Question 1: How do you find overall COPD management in Malaysia?

Only four out of thirteen experts (31%) expressed satisfaction with the current COPD management landscape in Malaysia (Figure 1), highlighting the need for comprehensive improvements in awareness, infrastructure, and policy direction.

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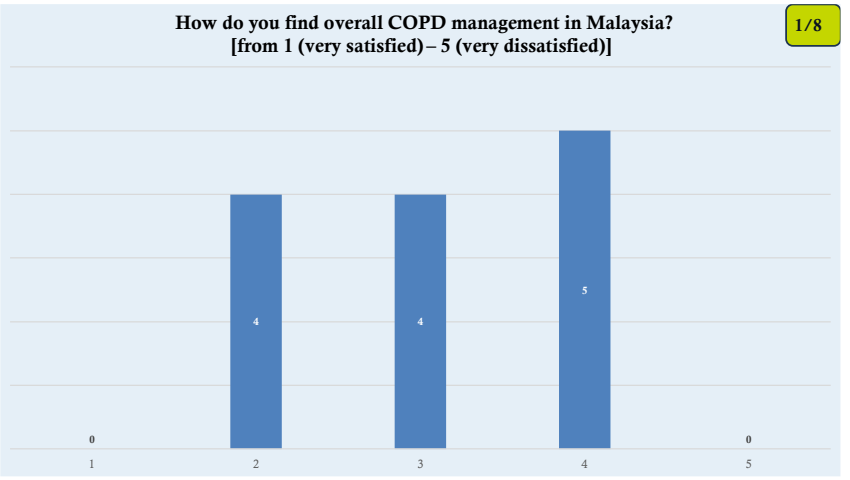

Fig.1 Responses to Survey Question 1

Source: Ahmad Izuanuddin et al. (2026)

3.2. Awareness and Capability

Question 2: What support and resources can be provided to the select/interest general practitioners (GPs) and Klinik Kesihatan (KK) to enhance their capacity and capabilities in effectively addressing lung health concerns?

Training and capacity building emerged as the top priority to improve care quality in primary healthcare settings, as ranked by 46% of experts (Figure 2). This should encompass specialised training programs, workshops, continuing medical education (CME) courses, and mentorship opportunities focusing on the diagnosis, management, and latest advancements in lung health and respiratory conditions.

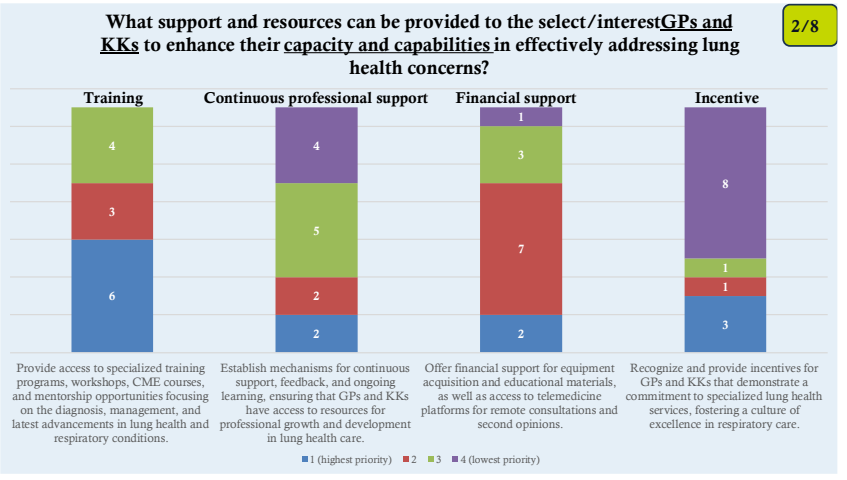

Fig.2 Responses to Survey Question 2

Source: Ahmad Izuanuddin et al. (2026)

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3.3. Infrastructure, Tool and Treatment

Question 3: How can we advocate for and justify the allocation of additional healthcare budget for COPD, including procurement and maintenance of diagnostic tools in primary care settings to ensure comprehensive and timely lung health assessments for all patients?

Question 4: What strategies can be implemented to promote the routine use of spirometry as a diagnostic tool in Level 1 Klinik Kesihatan and among GPs?

Key infrastructure gaps include insufficient access to spirometry testing, which was seen as a major barrier to accurate diagnosis (Figure 3, Figure 4).

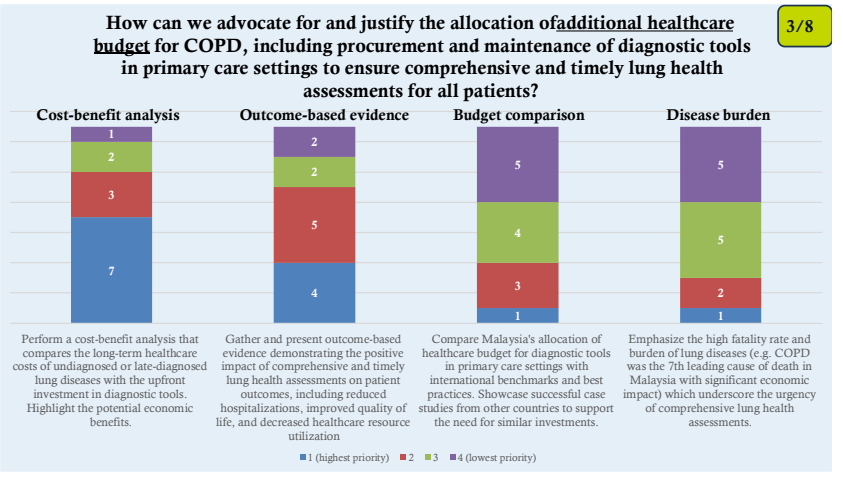

Fig.3 Responses to Survey Question 3

Source: Ahmad Izuanuddin et al. (2026)

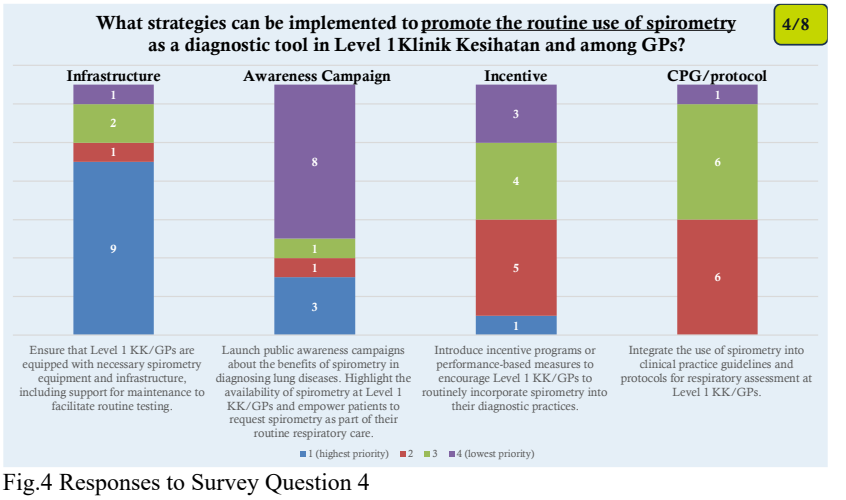

Fig.4 Responses to Survey Question 4

Source: Ahmad Izuanuddin et al. (2026)

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Question 5: What specific measures can be integrated into the healthcare system to enhance long-term COPD management, such as providing discharge medications, implementing COPD action plans, and utilising discharge checklists?

Experts also prioritised discharge protocols and respiratory nurse involvement to improve continuity of care (Figure 5).

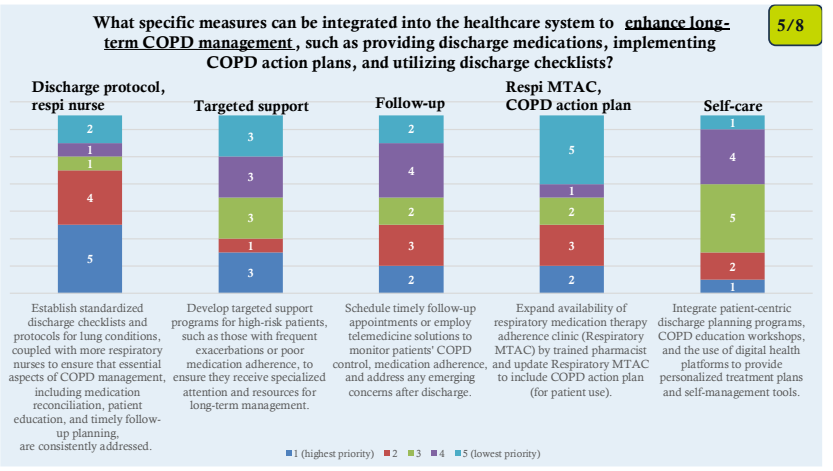

Fig.5 Responses to Survey Question 5

Source: Ahmad Izuanuddin et al. (2026)

Question 6: What strategies can be employed to collaborate and engage insurance companies in expanding coverage for asthma, COPD, and lung cancer?

The integration of shared care approaches and partnerships with insurance companies was highlighted as crucial for expanding coverage for outpatient COPD services (Figure 6).

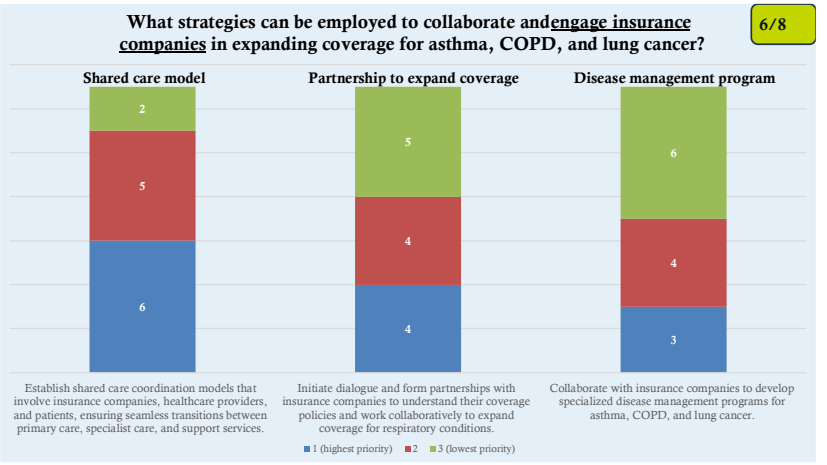

Fig.6 Responses to Survey Question 6

Source: Ahmad Izuanuddin et al. (2026)

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3.4. Governance and Strategy

Question 7: What measures can be implemented to ensure that patients have access to necessary medications while preventing misuse and overuse?

Question 8: How can collaboration between primary care and tertiary facilities be enhanced (e.g., through a hub-and-spoke model) to ensure that multidisciplinary team's function cohesively and efficiently?

Medication access and regulation were noted as challenges (Figure 7), while enhanced referral pathways and care navigators were suggested to optimise collaboration across healthcare levels (Figure 8).

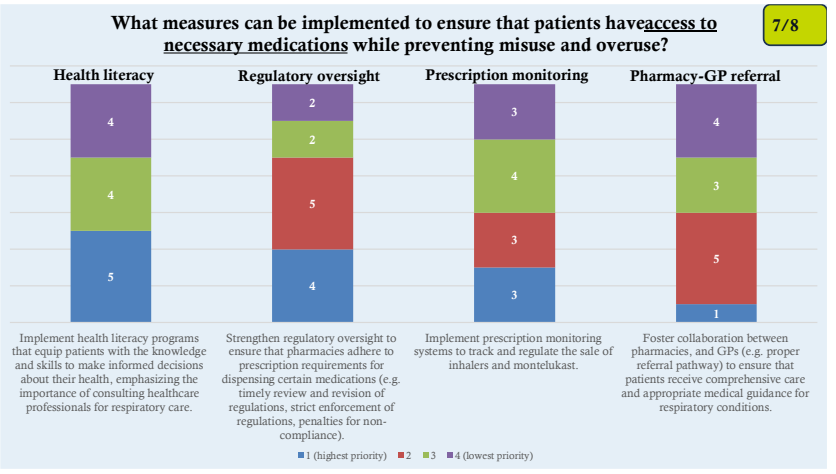

Fig.7 Responses to Survey Question 7

Source: Ahmad Izuanuddin et al. (2026)

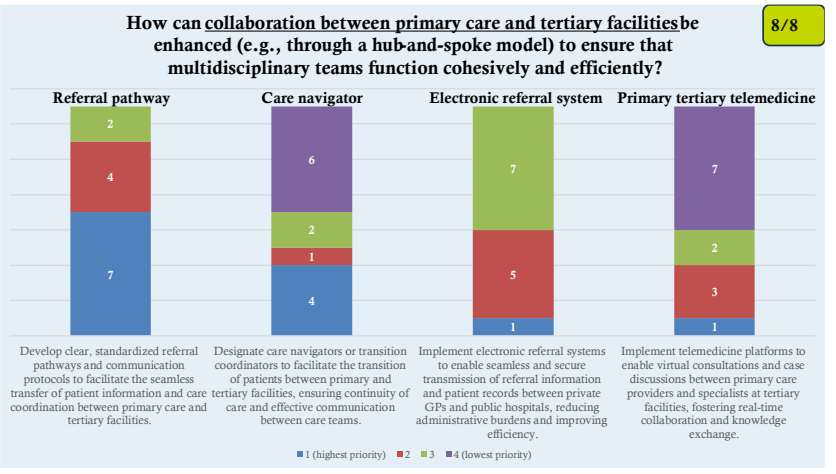

Fig.8 Responses to Survey Question 8

Source: Ahmad Izuanuddin et al. (2026)

4. DISCUSSION

4.1 Overall Satisfaction of COPD Management

The findings from the expert panel indicate significant potential for enhancement in the current management of COPD in Malaysia. To address these critical challenges, the following solutions have been proposed and should be prioritised by policymakers and healthcare leaders:

a. Enhancing Disease Awareness and Capability

A culturally appropriate, localised term for COPD should be developed to improve disease recognition. Presently, around 80% of patients are unaware of their condition before diagnosis. This underscores the importance of intensified awareness campaigns and integration with national tobacco control efforts, such as the Control of Smoking Products for Public Health Act 2024.

Early screening by physicians using validated questionnaires such as the PUMA tool is crucial. The PUMA questionnaire (Figure 9) and the Screening Pathway for COPD and Asthma (Figure 10) can be practical and effective tools when adapted and validated for local use. Training healthcare professionals, particularly in primary care, to use these tools is essential for early detection and appropriate referral for spirometry.

Accurate diagnosis also reduces unnecessary costs associated with misdiagnosis [4,5]. Therefore, expanding the number of spirometry-certified operators is vital. Effective inhaler use is another critical factor, especially among elderly patients who may have coordination or inspiratory limitations. Collaborative care models that include pharmacists can improve inhaler technique, adherence, and outcomes.

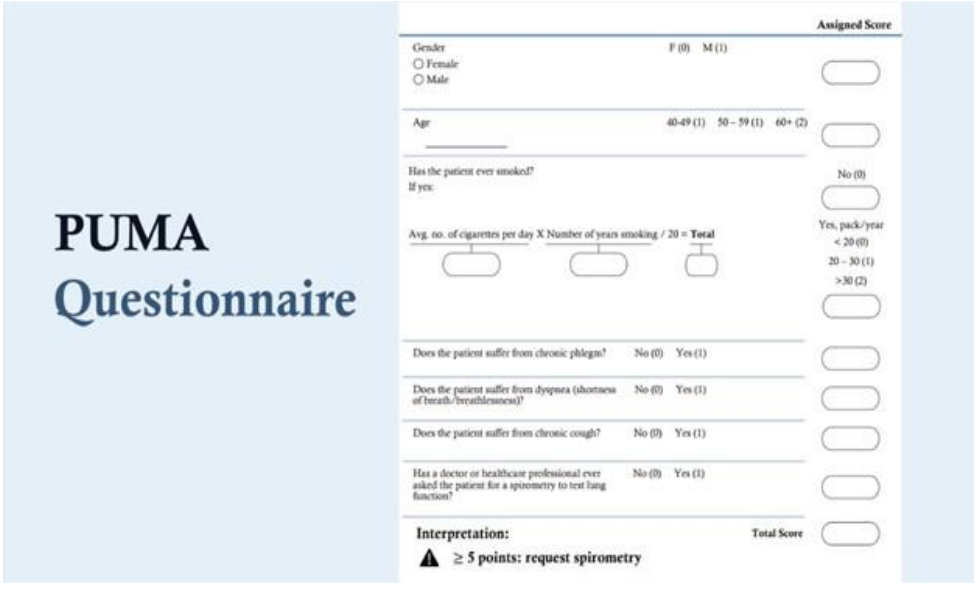

Fig.9 PUMA Questionnaire

Source: Ahmad Izuanuddin et al. (2026)

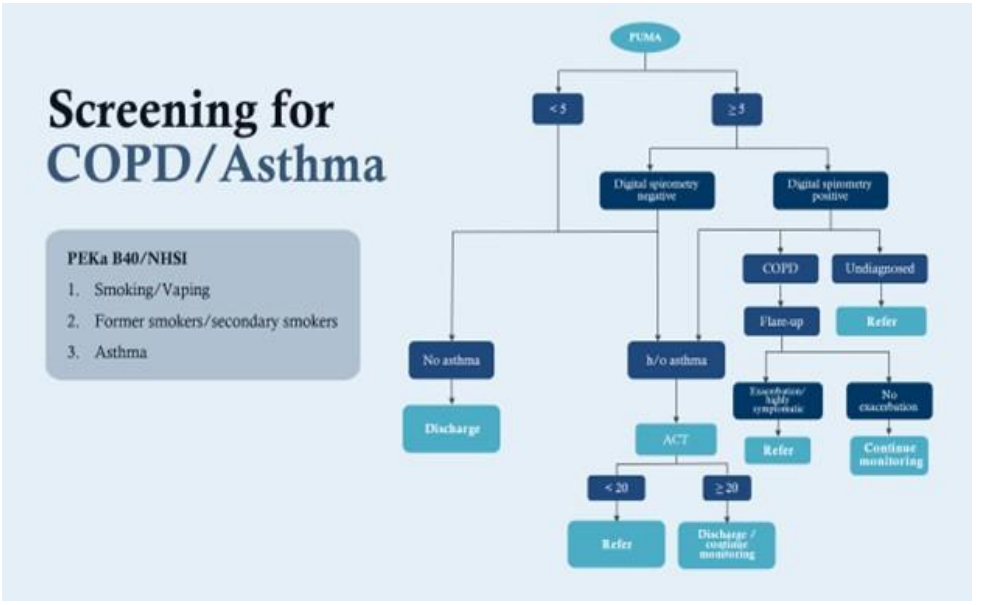

Fig.10 Screening Pathway for COPD and Asthma

Source: Ahmad Izuanuddin et al. (2026)

b. Ensuring Availability of Infrastructure, Tool and Treatment

Given the high prevalence of COPD, equipping primary care clinics with portable spirometers—akin to ECG availability—is a cost-effective solution. These devices are easier to operate and more scalable across lower-tier clinics. Establishing a national respiratory disease registry is necessary, but a registry alone is insufficient. Integration with dashboards and electronic systems can support real-time monitoring, guide decision-making, and provide transparency for outcome tracking. Access to maintenance therapy and vaccines remains a challenge. A proper logistics and financing framework is needed to ensure sustained availability across all regions.

c. Establishing Proper Governance and Strategy for COPD Control

COPD should be formally recognised under the National NCD Strategic Plan in line with WHO's Global NCD Action Plan [6]. A national framework should include indicators for training, infrastructure readiness, and health outcomes. Policymakers are urged to align COPD interventions with existing service clustering models.

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4.2 Awareness and Capability

In addition to the measures mentioned above, identifying and empowering a select group of interested GPs and healthcare providers can form the basis for a stewardship model in respiratory care and patient-centred outcome measures in value-based healthcare models. These GPs, with enhanced training and institutional support, could champion early diagnosis and integrated care delivery within their communities.

4.3 Infrastructure, Tool and Treatment

Cost-benefit analysis should support budgetary requests for COPD services. These analyses must include the full treatment cycle—from diagnostics to long-term management—capturing patient and healthcare system perspectives. Local data must be sourced through registries to validate these projections.

Routine spirometry should be standardised in primary care, facilitated by portable equipment and trained personnel. Improving hospital discharge planning through checklists, pharmacist-led interventions, and structured RMTAC programs is also necessary.

Moreover, integration of COPD action plans, nutritional counselling, and telehealth will enhance continuity of care [7]. Collaborations with insurance companies should focus on:

- Demonstrating cost-effectiveness of proactive COPD care (e.g., pulmonary rehab reducing readmissions by 30%)
- Designing value-based reimbursement models like bundled payments and pay-for-performance [8]
- Piloting programs for home spirometry, remote monitoring, and nurse case management
- Addressing social determinants of health such as transport and smoking cessation access
- Advocating through patient voices and professional societies (e.g., Malaysian Thoracic Society (MTS))
- Leveraging shared data platforms and EHRs for transparency and outcomes tracking

These approaches align provider-payer incentives and promote sustainability.

4.4 Governance and Strategy

Governance strategies must include greater clinical autonomy for prescribing essential maintenance therapy and clearer escalation protocols when stock limits are exceeded. Budget planning should include input from front-line clinicians.

The existing service clustering initiative offers a foundation for integrated care, where KKs without spirometry capabilities can partner with nearby tertiary centres. Care navigators and shared care plans can improve referral efficiency and patient outcomes.

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5. CONCLUSION

The expert panel recognises that COPD remains under-addressed in Malaysia despite its growing disease burden. We call upon the government to:

- Recognise COPD as a priority non-communicable disease and integrate it into national health agendas;
- Ensure equitable access to essential diagnostic tools, maintenance therapies, and vaccinations;
- Invest in training of healthcare professionals at all levels to improve diagnosis, inhaler technique, and long-term management;
- Facilitate collaboration across public and private sectors, including insurers, in value-based care models;
- Implement a national COPD strategy with benchmarks for training, infrastructure readiness, and service delivery.

Addressing these gaps will enable more effective COPD management, improved patient outcomes, and reduced long-term societal and economic costs.

6. CONFLICT OF INTEREST

Authors declare none.

7. ACKNOWLEDGEMENT

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8. GENERATIVE A.I DISCLOSURE STATEMENT

The authors confirm that no generative artificial intelligence (AI) tools were used in the development, writing, editing, analysis, or generation of content for this manuscript. All aspects of the manuscript, including the conception, interpretation of data, and preparation of the final version, were conducted solely by the authors. The authors take full responsibility for the accuracy, integrity, originality, and content of the manuscript.

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