

PULMONARY REHABILITATION

A feasible and promising therapy for managing chronic breathlessness in Georgia

POLICY BRIEF

1 IN 3

Adults smoke cigarettes

Georgia has one of the largest proportion of adult smokers in the European region. As many as 57% men, 7% women and 2% of young children aged 10-14 years old smoke cigarettes.

8000

Annual deaths attributed to tobacco dependence

Every year alone, 8000-11000 adults die from tobacco dependence. Deaths attributed to tobacco use comprise 22% of all deaths in the country, including from chronic obstructive pulmonary disease (COPD).

132,801

Cases of COPD in 2019

There is a high burden of COPD in Georgia, which goes undiagnosed. In 2019, the Global Burden of Disease study estimated 132801 cases of COPD, a 54% increase since 2000.

ლ619M

Costs of smoking

ლ619 million or €177 million is lost due to healthcare expenditures and reduced productivity from early mortality and morbidity caused by tobacco use.

The high rates of smoking and increasing levels of air pollution put Georgians at risk of developing COPD - chronic obstructive pulmonary disease. COPD a lifelong condition, which can leave people with chronic breathlessness, feeling fatigued, prone to chest infections and be life limiting. COPD also has substantial financial impacts on individuals, families and the national health system. Medical treatment for COPD is limited due to resource constraints, making the management of this disease challenging. In high-income countries, Pulmonary Rehabilitation has been found to be an effective and cost-effective therapy to manage COPD and improve quality of life. However, there are no pulmonary rehabilitation services offered in Georgia, neither is there local evidence to support implementation of this priority cost-effective therapy recommended in The Lancet NCD Countdown 2030.

In 2018, through links with the International Primary Care Respiratory Group (UK), a team including Chapidze Emergency Cardiology Center collaborated with the University of Birmingham on the 'Breathe Well' research programme funded by the UK National Institute for Health Research. The Breathe Well programme was implemented in 4 countries - Brazil, China, Georgia and North Macedonia. As part of this programme, the Georgian team conducted one of the first ever randomised controlled trials to test the feasibility and effectiveness of delivering a culturally adapted pulmonary rehabilitation intervention in low and middle income countries. This adapted programme included family members in educational talks, provided resources in the local language, and was conducted over 8 weeks with 60 participants in Tbilisi, Georgia.

What did we find?

Pulmonary Rehabilitation (PR) is a supervised programme that includes exercise, health education, and breathing techniques for individuals living with COPD. We tested if it was feasible to deliver a culturally adapted PR programme in the Georgian setting and whether this programme was effective in improving the health of individuals living with COPD.

We found that:

- Individuals who were offered the PR programme reported substantial improvements in health outcomes such as reduced COPD symptoms and fewer exacerbations (i.e. flare up of symptoms requiring hospitalisation), increased exercise capacity and lesser impacts on their social and psychological functioning.
- At the 6 months follow-up, improvements in health outcomes were still visible.
- Most participants felt satisfied and shared a positive experience about the PR programme. The rehabilitation specialists reported physical improvements and increased motivation among participants.
- Participants attended twice a week for 8 weeks. For those who did not attend regularly, barriers included long distance from the venue, transportation issues, health condition, weather, costs, and work-related reasons.
- The main cultural adaptation made was to exclude discussion about end of life in the education programme.

What needs to be done?

1. Pulmonary Rehabilitation (PR) is feasible and acceptable to deliver in the Georgian setting. It has a minimal cost of implementation with promising results for improving the health and quality of life of individuals living with COPD. Invest in a pilot PR service through the existing state health programme and scale up service as further implementation evidence is generated.
2. PR services should be offered free of cost or reimbursed under national health insurance as the study found that cost could be a barrier in uptake.
3. Rehabilitation specialists will need to be trained and offered incentives to lead PR services.
4. For PR to be successful, individuals at risk or with symptoms either need to be screened and diagnosed with COPD in primary care and referred for treatment to an accessible health facility or drawn only from secondary care, which would delay and limit access to PR.
5. Individuals at risk of or living with COPD urgently need health services close to home. Primary health care need the mandate and adequate resources to support individuals across their lifecourse - diagnosis, management, and working with the community.
6. Tobacco cessation can lengthen the life of individuals with COPD. Counselling to help people quit (WHO Best Buy) and pharmacotherapy (WHO Good Buy subject to local prices) need to be offered in primary health care.

References:

1. Maglakelidze, N., Sturua, L., Gamkrelidze, A., Maglakelidze, M. 2018. Current tobacco use and its associated factors among adults in Georgia: findings from Non-Communicable Disease Risk Factors STEPS Survey Georgia 2016. *Tobacco Induced Diseases*, 16(1), 782. <https://doi.org/10.18332/tid/84218>
2. Maglakelidze M, et al. 2022. Feasibility of a pulmonary rehabilitation programme for patients with symptomatic chronic obstructive pulmonary disease in Georgia: a single-site, randomised controlled trial from the Breathe Well Group. *BMJ Open*. 23;12(9):e056902.
3. World Health Organization. 2023. More ways, to save more lives, for less money: World Health Assembly adopts more Best Buys to tackle noncommunicable diseases. Available here: <https://rb.gy/g8850>.

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Learn more at : www.ipcr.org/breathewell

Read the COPD Magazine: Breathe Well, Move More, Live Better in Georgian: <https://shorturl.at/inw34>