



**LUNG CANCER
POLICY NETWORK**

Accelerating action: lessons from lung cancer screening in Central and Eastern Europe (CEE)

Summary recommendations

The Lung Cancer Policy Network

July 2024

The Lung Cancer Policy Network is a global network of multidisciplinary experts from across the lung cancer community, which includes clinicians, researchers, patient organisations and industry partners. The Network is funded by AstraZeneca, Guardant Health, Intuitive, Johnson & Johnson, MSD and Siemens Healthineers. Secretariat is provided by The Health Policy Partnership, an independent health research and policy consultancy. All Network outputs are non-promotional, evidence based and shaped by the members, who provide their time for free.

The
Health Policy
Partnership
[research, people, action]

Contents

Delegate list	3
Background to the event	4
The CEE region	4
Screening	4
Key learnings from established screening programmes in the CEE region.....	5
Recommendations to policymakers	6
References	7

Delegate list

A broad coalition of stakeholders attended the event, including policymakers, clinicians and industry representatives.

The content of this brief is based on discussions at the event. Some proof points may not be referenced as they were sourced from expert opinions.

- Antun Aboud; University Hospital Centre Zagreb
- Mariusz Adamek; Medical University of Silesia, Medical University of Gdańsk
- Joanna Chorostowska-Wynimko; National Institute of Tuberculosis and Lung Diseases, Poland
- Penilla Gunther; FOKUS Patient, Member of EU Cancer Mission Board
- Jacek Jassem; Polish Cancer League
- Anna Kerpel-Fronius; National Korányi institute of Pulmonology
- Vladimír Koblížek; University Hospital Hradec Králové, Charles University
- Kristina Krpina; University Hospital Centre Zagreb
- Henryka Krzywonos-Strycharska; Polish Parliament
- Radosław Lubera; Radpoint
- Agnieszka Samborska; AstraZeneca
- Urszula Żurek-Kucharska; AstraZeneca
- Sebastian Schmidt; Siemens Healthineers
- Michał Smoliński; Radpoint
- Nikola Stourac; Institute of Health Information and Statistics of the Czech Republic
- Joel Plaja; AstraZeneca
- Jarek Oleszczuk; nCage Therapeutics & Institute for Social Policy Development; Genomtec
- Tadeusz Orłowski; National Institute of Tuberculosis and Lung Diseases
- Witold Rzyman; Medical University of Gdańsk
- Małgorzata Czajkowska-Malinowska, National consultant in the field of lung diseases;
- Krzysztof Jakubiak, editor-in-chief, mZdrowie.pl
- Wojciech Głuszewski, Institute of Nuclear Chemistry and Technology
- Radosław Lubera, Silesian University of Technology
- Dorota Tuńska, editor-in-chief DoZdrowia.pl
- Małgorzata Stelmach, MSD Polska
- Ricardo Martin, Johnson & Johnson
- Jacek Wcisło, Johnson & Johnson

Background to the event

In May 2024, the Lung Cancer Policy Network hosted an in-person roundtable in Warsaw: 'Accelerating action: lessons from lung cancer screening in Central and Eastern Europe (CEE)'. The event brought together stakeholders from across the region to build consensus on key recommendations to accelerate the implementation of targeted low-dose computed tomography (LDCT) screening for lung cancer.

The CEE region

Lung cancer incidence and mortality across the region is high; over 80,000 people are diagnosed annually, and the number is rising, especially among women.^{4 5} Fifty percent of lung cancer in the region is diagnosed at a late stage, when the five-year survival rate is less than 10%.^{6 7} High smoking rates and increasing air pollution are also factors that cause the region to have a high burden of lung cancer.^{8 9}

In part due to high rates of tuberculosis (TB) after World War II, many CEE countries have a well-established screening infrastructure. Poland, for example, has had a TB screening programme in place since 1959.¹⁰ Even with many countries in the region facing challenges related to technical capacity for screening – some have very few CT scanners per capita and poor access to healthcare for people in rural locations – the existing screening infrastructure and centralised health systems place the region in a strong position to implement new programmes. By leveraging these advantages, and expanding and accelerating the implementation of LDCT screening for lung cancer, the region could significantly decrease mortality, saving 16,000 lives annually.¹¹

Screening

There are four screening programmes at various stages of implementation in the CEE region:

- **Croatia** has a national screening programme.
- **Poland** is rolling out a national pilot screening programme.
- **Hungary** and **Czechia** are conducting promising pilot screening programmes.

These programmes have been called 'the four most advanced programmes in the EU-27' by attendee Sebastian Schmidt of Siemens Healthineers, and they provide a springboard for full implementation across the region.

These countries, among others in the region, are also members of Strengthening the Screening of Lung Cancer in Europe (SOLACE), an EU4Health project that aims to develop, test and disseminate tools to help overcome bottlenecks and health inequalities in lung cancer care.¹² The project is also working to provide a toolbox for individualised approaches for lung cancer screening on a national or regional level.

Key learnings from established screening programmes in the CEE region

Those involved in the design, development and management of LDCT screening programmes should seek policy engagement while collaborating with others to share and aggregate data to prove their effectiveness.

- It is important to engage with governmental policymakers in order to build support for lung cancer screening.
 - In Croatia, a minister from the Department of Health championed the implementation of the national screening programme; this was cited as the key reason for its expansion. Before implementing the programme, policymakers wanted to see clear data on the benefits of screening, and an implementation plan that included anticipated evaluation plans.
 - Network resources that support governmental policy engagement include our five [lung cancer factsheets](#), the report [Lung cancer screening: learning from implementation](#), and our [implementation toolkit](#).
- Stigma about lung cancer and low awareness of the benefits of screening are often cited as reasons for the low uptake of policies to increase screening.³ Where possible, advocates should aim to collaborate with European and local-level patient and professional organisations to promote screening and reduce stigma about smoking and lung cancer.
- To learn from the successes of established lung cancer screening programmes across Central and Eastern Europe, it is imperative that those involved in screening are supported to share knowledge and best practice; this will facilitate the optimal development and implementation of new programmes.
 - There is a wealth of evidence – in the region and internationally – about the effectiveness of LDCT screening for lung cancer. By sharing this evidence, replicative research can be reduced, facilitating a better use of resources to prove the efficacy of LDCT screening to policymakers.
 - The Network’s [interactive map](#) provides an overview of LDCT screening implementation across the globe
 - Groups including the Lung Cancer Policy Network, SOLACE etc. provide opportunities to collaborate and share knowledge. Those at the event highlighted the importance and need for more opportunities to connect at a regional level.

- Attendees at the event suggested that visiting existing screening programmes and pilots across the region could help to further learn how implementation is being planned and delivered in this context.
- Existing screening data must be shared, aggregated and analysed to demonstrate the effectiveness of screening programmes to policymakers.
 - By aggregating data from successful screening programmes, policymakers can see definitively that screening for lung cancer increases survival rates, is cost-effective, and can be successfully integrated into health systems.
 - At the CEE region level, delegates were keen to explore opportunities to share data to aggregate regionally specific data. There was support to define the metrics by which to measure the success of screening implementation programmes, including:
 - 50% of lung cancer being detected at stage 1 or 2 within five years
 - increasing the uptake of screening in the eligible population to 80% within five years.
- Involving general practitioners (GPs) in the design, implementation and evaluation of a lung cancer screening programme can promote uptake and increase implementation success.
 - Including GPs in the design of the Croatian programme was vital to its success. The physicians were integrated into the screening pathway, and GP reimbursement for referring patients was established to promote screening and uptake.
 - A case study on the Croatian pilot can be accessed via the [Network website](#)

Recommendations to policymakers

Delegates at the event were in strong agreement that targeted screening for lung cancer could significantly decrease mortality from lung cancer, reduce the economic impact, and improve quality of life. Through discussion, clear recommendations emerged for policymakers, and for those involved in the development and delivery of screening.

- Building on recommendations published by the European Commission in 2022, policymakers in locations where LDCT screening programmes have not been established should recognise the effectiveness of such programmes and develop a clear roadmap to expand existing screening pilots.

- Governments should use a stepwise approach, as recommended by the Commission, to ensure that funding is committed; that health system readiness for implementation is assessed; that plans are developed to ensure that health systems will have the necessary workforce and infrastructure; and that lung cancer is included in national early detection strategies.¹
 - This could include the initiation of screening pilots as a first step to implementation.
- Policymakers in areas that have already seen the results of successful LDCT screening pilots should work to accelerate a transition to a national programme. They should do this by committing funding and resources, recognising that this investment will save money in the future by transforming lung cancer from a costly, low-survival disease into a treatable, highly survivable one.²
 - The Network has a [free toolkit](#) that can be used to assess the readiness of a health system to implement an organised screening programme.

References

1. European Commission. European Health Union: A new EU approach on cancer detection – screening more and screening better. [Updated 20/09/23]. Available from: https://ec.europa.eu/commission/presscorner/detail/en/ip_22_5562 [Accessed 07/11/23]
2. Lung Cancer Policy Network. 2022. *Lung cancer screening: learning from implementation*. London: The Health Policy Partnership
3. Lung Foundation Australia. 2018. *Making lung cancer a fair fight: A blueprint for reform*. Milton: Lung Foundation Australia
4. International Agency for Research on Cancer. 2022. Cancer today. Available from: <https://gco.iarc.fr/today/en/dataviz/bars?mode=population> [Accessed 03/04/24]
5. International Agency for Research against Cancer. Cancer Tomorrow. Available from: <https://gco.iarc.fr/tomorrow/en/dataviz/bars> [Accessed 03/04/2024]
6. Sheikh M, Virani S, Robbins HA, *et al.* 2023. Survival and prognostic factors of early-stage non-small cell lung cancer in Central and Eastern Europe: A prospective cohort study. *Cancer Med* 12(9): 10563-74
7. Polanco D, Pinilla L, Gracia-Lavedan E, *et al.* 2021. Prognostic value of symptoms at lung cancer diagnosis: a three-year observational study. *J Thorac Dis* 13(3): 1485-94
8. Vrdoljak E, Bodoky G, Jassem J, *et al.* 2016. Cancer Control in Central and Eastern Europe: Current Situation and Recommendations for Improvement. *Oncologist* 21(10): 1183-90

9. Couespel N, Price R. 2020. *Strengthening Europe in the fight against cancer, study for the committee on Environment, Public Health and Food Safety*. Luxembourg: European Parliament
10. Zielonka T. 2016. Epidemiologia gruźlicy w Polsce — implikacje w praktyce lekarza rodzinnego. *Forum Medycyny Rodzinnej* 10(1): 25-33
11. Henschke CI, Yip R, Shaham D, *et al.* 2023. A 20-year Follow-up of the International Early Lung Cancer Action Program (I-ELCAP). *Radiology* 309(2): 1-8
12. European Lung Foundation. 2023. About SOLACE. Available from: <https://europeanlung.org/solace/about/> [Accessed 17/06/24]