SOLACE

Strengthening the screening of Lung Cancer in Europe

Scaling up and implementing lung cancer screening in Europe

Insights from the SOLACE project

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Background and achievements

SOLACE's vision and mission

SOLACE was a project co-funded by the EU4Health programme (April 2023-March 2026). Its aim was to improve the quality of lung cancer screening (LCS) in Europe and to facilitate the implementation of structured low-dose CT lung cancer screening programs. The project focused specifically on improving accessibility, the benefit-harm balance, and cost effectiveness of lung cancer screening programmes. What makes SOLACE unique is its focus on ensuring that screening reaches the individuals who need it most via three targeted pilots.

Real-life pilots from SOLACE

Pilot 1: Enhancing knowledge and participation of female individuals
The first pilot, which linked breast and lung cancer screening programmes, aimed to increase the participation of females in LCS.

Pilot 2: Recruitment of hard-to-reach individuals
The second pilot included hard-to-reach populations, specifically socially-deprived populations and/or ethnic minorities, in lung cancer screening programmes.

Pilot 3: Higher risk populations
The third pilot focused on targeting populations with comorbidities. Within this group, subgroups were identified which exist of patients with COPD, fibrotic ILD, and cancer survivors.

SOLACE achievements

Total screened individuals

Achieved: 31,083

Target: 24,200

Female recruitment

Achieved: 17,641

Target: 12,550

Hard-to-reach recruitment

Achieved: 13,732

Target: 3,429

Tobacco-related comorbities detected

Achieved: 13,538

Target: 4,150

Policy recommendations

1. Scale-up national lung cancer screening programmes across Europe

In Europe, a few countries have already implemented LCS nationally. Early adopters, Croatia and Poland, both started their national programmes in 2020, whereas in Germany the national programme starts in April 2026. France aims to have a widespread screening of lung cancer by 2030. It is critically important that LCS programmes are now rapidly expanding throughout Europe. Evidence from various randomized controlled trials showed that targeted screening leads to earlier detection of lung cancer and consequently to a reduction in mortality. Thus, rapid scale-up over the next 3–5 years is essential to reduce lung cancer mortality and inequalities across Europe.

2. Implement culturally tailored, community-based recruitment strategies

Different forms of recruitment that are aligned with the cultural context of the specific country and region were highlighted throughout the project. Overall, community-level engagement strategies are recommended which suit the countries' context. For instance, in Poland priests were involved in the recruitment of the target population which increased trust due to the religious significance within the country. Another example includes Estonia, where high recruitment numbers were achieved by building partnerships with family doctors and nurses, who then actively engaged patients. Such innovative and context-specific ways of recruiting the target population are highly recommended.

Best practices regarding reaching participants include sending out letters in advance, which helped to prepare the target population for screening. Additionally, it was useful to assess the status of the individuals beforehand via phone, to determine if a screening is necessary.

> “If you bring a mobile unit into the community, it makes it so much easier for participants to come.”
>
> *Lung Health Check Nurse (Ireland)*

3. Prioritise the inclusion of underserved and hard-to-reach populations, including women and patients with co-morbidities

It is of great importance to focus on underserved populations to encourage them to attend LCS, which in turn can reduce socio-economic inequalities. Multiple good practices in reaching underserved populations were identified in the SOLACE pilots:

1. Populations who live in rural areas or who might otherwise not attend can be reached via a mobile unit. In Poland, mobile CT screening units helped to increase access among rural populations.
2. It is important to have no judgement towards smokers throughout the entire process, leading to trust of the target population and, thus, higher screening attendance.

4. Embed lung cancer screening into existing healthcare pathways

A further key point is the usage of existing healthcare pathways when implementing LCS at a national level. Overall, it is important to consider the whole cancer patient pathway from diagnosis to treatment when implementing national screening programmes. An effective way of doing so is utilizing lung cancer-defined referral pathways which reduce delays and ensure timely diagnosis and treatment and, hence, improve outcomes for patients. Additionally, the usage of existing smoking cessation services is recommended.

Another example of integration is the pilot on women that took place in France and illustrated how different types of screenings, namely lung and breast cancer, can be combined. This practice is very efficient, especially regarding underrepresented or hard-to-reach individuals that may not want to attend various screenings on multiple occasions.

5. Strengthen EU-Level support for lung cancer screening as well as data infrastructure and knowledge sharing

At the European Union level, several policy frameworks support the development of LCS across Member States. Europe's Beating Cancer Plan provides an overarching strategy for strengthening cancer prevention, early detection, and screening in the EU. This is complemented by the 2022 EU Council Recommendation on cancer screening, which encourages countries to explore the implementation of LCS based on emerging scientific evidence.

Evidence-based policymaking is further supported by international scientific assessments, including the work of the International Agency for Research on Cancer (IARC), and technical guidance developed by the European Commission's Joint Research Centre (JRC), which contribute to the development of screening guidelines and quality standards.

Prevention policies also remain essential. EU tobacco control measures, including the revision of Tobacco Taxation Directive and upcoming process for the Tobacco Products Directive along with the implementation of the Council Recommendation on smoke- and aerosol-free environments play a crucial role in reducing lung cancer risk and complement screening efforts. Additionally, the EU's zero Air pollution ambition as well as related legislation directly plays a role in the reduction of lung cancer risk.

EU funding programmes also support the generation of evidence and implementation experience. The EU4Health Programme has funded initiatives such as SOLACE, which provide practical insights into how lung cancer screening programmes can be implemented effectively and equitably across different healthcare systems. Sustained funding is needed to ensure that such initiatives can continue, which greatly contribute to the health of European citizens.

Finally, European initiatives such as the European Health Data Space will support the use of health data to monitor screening outcomes and improve programme implementation across Europe. Tools developed through SOLACE, including the Knowledge Hub, further contribute to knowledge sharing and collaboration between countries planning or scaling lung cancer screening programmes.

> “The key for success in Europe will be to work together. That means complete transparency. With SOLACE and the European Union guidelines, they need to go hand-in-hand together. We need to have sustainable solutions.”
>
> *Dr. Ciaran Nicholl – Head of the Health in Society Unit at the Joint Research Centre, European Commission*

Remaining challenges

An important gap that needs to be addressed is the huge disparity within member states regarding screening programmes. Different contexts and factors must be accounted for, in terms of:

1. effective recruitment strategies for high-risk and underserved populations
2. integration with existing healthcare pathways such as primary care and smoking cessation services
3. the availability of screening infrastructure and trained healthcare professionals
4. robust data collection and quality assurance systems to monitor screening outcomes
5. clear referral pathways for diagnosis and treatment
6. effective public awareness and risk communication strategies
7. sustainable financing and reimbursement mechanisms for screening programmes.

Any gaps need to be thoroughly researched during the planning for national implementation. Whereas a protocol may help create the basis of the screening programme, national factors need to be considered individually. Specific factors include: the structure of the healthcare system, the role of GPs and other health professionals, cultural factors such as religion, and stigmatization of smokers. A further challenge includes national countries having equal access to relevant resources and best practices when implementing their own individual programs. The SOLACE knowledge hub offers various resources on best practices and, thus, supports national countries in the implementation of their own programs.

LCS should be a priority for all national screening plans. It is a key measure for prevention and needs to be accessible to relevant individuals. Evidence from the SOLACE pilots shows that screening programmes can effectively reach high-risk populations when appropriate recruitment strategies and healthcare pathways are in place. Thus, national scale-ups should be a key priority for European health systems.

Future priorities for action

Supporting patients after diagnosis

Screening programmes must be embedded within the broader lung cancer care pathway, ensuring that individuals with positive findings can access diagnostic confirmation and treatment without delay. This means:

- Having clear referral pathways in place. After a positive screening result, patients must be rapidly referred for further diagnostics and receive multi-disciplinary assessment.
- Providing timely access to treatment
- Anticipating capacity of treatment centers with potential increased number of diagnosed cases
- Guaranteeing equity in treatment access (geographical, socio-economic, healthcare coverage/insurance, health literacy).

The European Lung Cancer Screening Alliance

The European Lung Cancer Screening Alliance (ELCSA) was launched in early 2026 by partnership with the European Respiratory Society (ERS) and the European Society of Radiology (ESR).

It aims to ensure that the achievements of the SOLACE project over the last three years are sustained beyond the lifetime of the project. Specifically, the alliance supports the long-term sustainability of key SOLACE outputs, including the Lung Cancer Screening Guidelines, the joint training curriculum for physicians carrying out the lunger cancer screening, as well as the Knowledge Hub.

The Knowledge Hub provides practical tools for countries planning or implementing lung cancer screening, including guidance documents, training materials, quality assurance resources and examples of best practice. ELCSA will also play an advocacy role by providing a unified voice at both European and national levels to support the adoption of lung cancer screening programmes.

Through these activities, ELCSA aims to support countries in developing, implementing and scaling lung cancer screening programmes across Europe. Initiatives such as ELCSA are crucial to ensure the long-term impact of the lung cancer screening infrastructure, and to enable their maintenance and further development across Europe.

> SOLACE was uniquely positioned to address key knowledge gaps that are critical for the effective implementation of national lung cancer screening programmes across Europe.

Joanna Chorstowska-Wynimko SOLACE Project Representative and President of the European Respiratory Society

> ELCSA is a vehicle that helps us to speak with one voice to advocate for continued implementation of Lungs Cancer Screening. As SOLACE concludes, this alliance ensures the collaborative networks, clinical guidelines, and Knowledge Hub, we built will sustain long-term impact across Europe.

Helmut Prosch, European Society of Radiology (ESR)

Learn more

www.solacehub.eu