

Overcoming the Invisible Hurdles of Lung Cancer Screening (LCS)

Why Does LCS Matter?

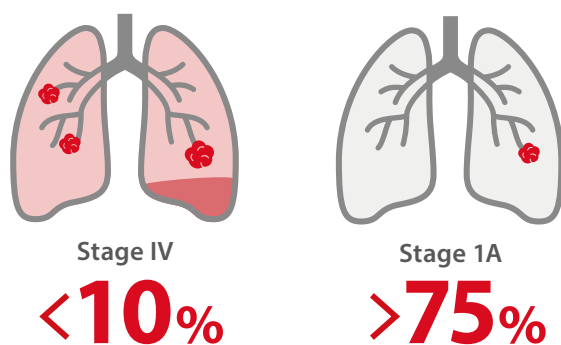
Lung cancer is the most common cancer worldwide, accounting for the highest mortality rate (18.7% in 2022).¹

Top 5 causes of lung cancer

Tobacco smoking²	80%–90%
Secondhand smoke ³	20%–30%
Air pollution ⁴	14%
Occupational exposure ⁵	5%–10%
Genetic predisposition ⁶	8%

Early screening improves survival rates in high-risk individuals* 7,8

5-year survival rates depend on detection stage⁸



Despite its clinical benefits, only 5%-6% of eligible individuals undergo LCS.⁹

*The United States Preventative Services Task Force (USPSTF) recommends annual low-dose computed tomography (LDCT) screening for adults aged 50-80 years with a 20 pack-year smoking history, who currently smoke or have quit within the past 15 years.¹⁰



Screening-related Concerns



Practical Barriers

Other Barriers

Deciphering Barriers to LCS

83% of survey participants perceived **potential harm from false-positive findings** as a significant barrier to LCS¹¹

65% of smokers who did not intend to screen were worried about **lung cancer risk from radiation exposure**¹²

18% of non-participants in the UK LCS Trial declined screening due to **travel challenges, including distance and trip costs**¹²

43 | **8.9–44.3**
US¹³ | **Europe**¹⁴
Number of CT scanners per million population
Differences in **CT scanner availability** across countries significantly impact the effective implementation of LCS¹⁴

- Fear of cancer diagnosis¹⁵
- Smoking-related stigma¹²
- Low perceived risk of lung cancer¹⁵
- Suboptimal integration of LCS into primary care¹¹
- Lack or minimal reimbursement for LCS^{12,16}
- Difficulties integrating a CT screening policy at the national level¹⁷⁻¹⁹
- Limited number of CT scanners in rural areas¹⁷
- Low health literacy¹⁷ & LCS not being considered a medical priority in some regions²⁰

Ways to Overcome These Barriers



Increasing awareness about the benefits of **ultra-LDCT-based LCS**, such as **lower radiation exposure**²¹ and **AI-enhanced image quality**²²



Adopting **mobile screening units** to reach high-risk populations facing geographic barriers^{12,15,17,23,24}

- Supporting multidisciplinary efforts to develop national programs for LCS and improve its integration into primary care^{16,17,19}
- Integrating co-morbidities /combination screening into LCS²⁵⁻²⁷
- Supporting societal initiatives that promote and enhance LCS:
 - Patient advocacy groups (including smoking cessation groups)^{12,28}
 - Promoting smoke-free generations²⁹
 - Creating a health-conscious society¹⁵

Improved implementation of LCS and uptake of eligible patients

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NEXT edition

Defining effective LCS:
Finding the balance between radiation dose and image quality

Tell us more about the most common barrier for your patients

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Hear what the experts say

Join our webinar **“Unlocking Access to Lung Cancer Screening”** and learn more about LCS

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References:

1. Bray F, et al. *CA Cancer J Clin.* 2024;74(3):229–63. 2. Corrales L, et al. *Crit Rev Oncol Hematol.* 2020;148:102895. 3. CDC Smoking and Tobacco Use. Health problems caused by second-hand smoke. Available at: <https://www.cdc.gov/tobacco/secondhand-smoke/health.html> accessed on 30 August 2024. 4. Berg C, et al. *PL02.* 07. *J Thorac Oncol.* 2021;16(10):S846–7. 5. Nishida C, et al. *Int J Environ Res Public Health.* 2022;19(5):2788. 6. Kanwal M, et al. *Oncol Lett.* 2017;13(2):535–42. 7. Lam DC, et al. *J Thorac Oncol.* 2023;18(10):1303–22. 8. Li C, et al. *Cancer Biol Med.* 2022;19(5):591–608. 9. Gomes R, et al. *BMC Prim Care.* 2023;24(1):62. 10. Zarinshenas R, et al. *Cancers.* 2023;15(5):1595. 11. Barton MK. *CA Cancer J Clin.* 2015;65(4):255–6. 12. Wang GX, et al. *Radiology.* 2019;290(2):278–87. 13. Poon C, et al. *Front Public Health.* 2023;11:1264342. 14. van Meerbeeck JP, et al. *Transl Lung Cancer Res.* 2021;10(5):2407. 15. Cavers D, et al. *Respir Res.* 2022;23(1):374. 16. Coughlin JM, et al. *J Thorac Dis.* 2020;12(5):2536–44. 17. Dodd RH, et al. *Transl Lung Cancer Res.* 2024;13(2):240. 18. Pinsky PF. *Transl Lung Cancer Res.* 2018;7(3):234. 19. Wang P, et al. *Bull Cancer.* 2023;110(1):42–54. 20. Santos R, et al. *PL03.* 02. *J Thorac Oncol.* 2021;16(10):S826–7. 21. Vonder M, et al. *Transl Lung Cancer Res.* 2021;10(2):1154–64. 22. Yang L, et al. *Clin Radiol.* 2023;78(7):525–31. 23. Dickson JL, et al. *Ann Oncol.* 2022;33(1):34–41. 24. Rivera MP, et al. *Am J Respir Crit Care Med.* 2020;202(7):e95–e112. 25. Behr C, et al. *Eur Radiol.* 2024;34(7):4448–56. 26. Berzinger S, et al. *Am J Prev Cardiol.* 2024;19:100719. 27. Revel MP, et al. *Insights Imaging.* 2023;14(1):176. 28. Amicizia D, et al. *Healthcare (Basel).* 2023;11(14):2085. 29. Weber A, et al. *BMJ Open.* 2023;13(5):e065303.

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