

PATIENT EDUCATION AND OUTREACH MATERIALS

Outreach and education are important components of any lung cancer screening program, and patient navigators are often tasked with this responsibility. To support patient navigators and others conducting education and outreach for lung cancer screening, below is a curated list of publicly available educational materials along with their suggested uses (Table 1). These materials were identified through Google engine searches using the terms “lung cancer screening patient education,” “lung cancer patient education,” and “lung cancer shared decision making” combined with the examination of websites of professional societies, advocacy organizations, and federal agencies representing key stakeholders in lung cancer screening in the US.

All materials shown in Table 1 are below the 8th grade reading level and are deemed appropriate for the target population based on the readability and use of best practices in social marketing. Best practices for this evaluation were defined as: the provision of accurate information; recommendation to engage with healthcare provider; delivery of unbiased presentation of benefits and risk; and avoidance of the use of fear-based messaging. Note that the date last updated, when available, is also indicated in Table 1. Changes in lung cancer screening eligibility and coverage are anticipated in 2021/2022; therefore it will be important to ensure these websites and materials are kept updated for their continued use.

The materials in Table 1 are shown in the recommended order based on 1) comprehensiveness of content and 2) evaluation of the reading level, visual display, and use of clear communication. Table 2 gives additional details regarding these evaluations.

Table 1. Publicly Available Lung Cancer Screening Education and Outreach Materials (Print or Video Format), Listed in Recommended Order

Source	Link	Format	Suggested Uses
1. The Lung Cancer Project (coalition of stakeholders/ organizations; content produced by Genentech)	https://www.thelungcancerproject.org/screening/pdf/patient-screening-guide.pdf Last updated 2018	Printable 8-page simple to read PDF; easy to use infographics; some color but reproduces well in black and white	Best overall; handout at Health Fair, Community Meeting or one-on-one patient education, or include in a patient packet for annual visit
2. Go2 Foundation (advocacy, charitable organization)	https://go2foundation.org/wp-content/uploads/GO2-Understanding-LC-Screening_FINAL-1.pdf Last updated 2019	Printable 8-page PDF; one photo with remainder text content; reproduces well in black and white	Very good printable website for use as handout at Health Fair, Community Meeting, or to include in a patient packet for annual visit
3. The Lung Cancer Project (coalition of stakeholders/ organizations; content produced by Genentech)	https://www.thelungcancerproject.org/screening/pdf/patient-screening-overview-card.pdf Last updated 2018	2-sided printable brief “card” for easy handout	Best material for initial outreach handout at Health Fair or Community Meeting
4. American Lung Association	https://www.lung.org/getmedia/9f9c3528-c634-474d-a0ab-a2f011c92500/lung-cancer-screening-is-it-right.pdf Last updated March 2020	Printable PDF of fact Sheet, 2.5 pages printed. No visuals and limited color so easy to reproduce.	Very basic introduction material to hand out at Health Fair, Community Meeting

5. American Lung Association	https://www.lung.org/lung-health-diseases/lung-disease-lookup/lung-cancer/saved-by-the-scan/resources/what-to-expect-from-lung-cancer-screening Last updated April 2020	Website; not available as PDF but prints out 4 pages in readable format	One-on-one patient education once people have decided to get screened
6. National Comprehensive Cancer Network (education and support organization for accredited cancer centers)	https://www.nccn.org/patients/guidelines/content/PDF/lung_screening-patient.pdf	Available on web or printed as 48-page comprehensive booklet with extensive pictures and graphics; better printed in color	One-on-one patient education once people have decided to get screened or have been screened and have a test result
7. Go2 Foundation	https://vimeo.com/353423836 Uploaded in 2019	4.2 minute animated video	Good for Health Fair, outreach
8. The Lung Cancer Project	https://www.thelungcancerproject.org/screening/pdf/the-importance-of-lung-cancer-screening.mp4	1-minute video	Good for Health Fair, outreach

Table 2: Evaluation of the Readability, Visual Display and Clear Communication

Source (same order as Table 1)	Readability (Grade Level; best if 6 th grade or below)	Visual Display (Grade Level; best if 8 th grade or below)	Clear Communication Index (<u>≤ 90 is best</u>)	Content
1. The Lung Cancer Project Screening Guide	3.6	8	95	Most comprehensive FAQs about eligibility, insurance, what to expect, risk/benefits, follow-up
2. Go2 Foundation	3.3	Not applicable	93.8	Common FAQs about eligibility, insurance, what to expect, risks
3. The Lung Cancer Project (coalition of stakeholders/ organizations; content produced by Genentech)	3.7	2	93.8	Eligibility, raising awareness about benefits of screening
4. American Lung Association	7.7	Not applicable	78.95	Common FAQs such as eligibility criteria, insurance coverage, risk/benefit, when talk to provider (does not include what to expect with screening)

5. American Lung Association	6	Not applicable	82.4	Explains steps in screening process, shared decision making, and follow-up
6. National Comprehensive Cancer Network (education and support organization for accredited cancer centers)	3.1	8	70	Explains lungs, their function and structure, how cancer develops, screening process, how to interpret and use results
7. Go2 Foundation	6	Not applicable	Not applicable	Very clear and understandable graphics explaining the benefits; also one of the few materials to cover symptoms
8. The Lung Cancer Project	5.1	Not applicable	Not applicable	Raising awareness of eligibility and who should get screened by showing images of people smoking in the 1960's/1970's

Readability: The simple measure of gobbledygook (SMOG) readability test was used to determine grade reading level. SMOG determines reading grade level by analyzing both sentence and word length. The SMOG Readability Formula is as follows:

1. Count 10 sentences in a row near the beginning of the material. Count 10 sentences in the middle. Count 10 sentences near the end. (30 total sentences)
2. Count every word with three or more syllables in each group of sentences, regardless of the number of times the word itself appears.
3. Add the total number of words counted. Use the SMOG Conversion Table (below) to find the grade level.

SMOG Conversion Table

<u>Word Count</u>	<u>Grade Level</u>	<u>Word Count</u>	<u>Grade Level</u>
0-2	4	73-90	12
3-6	5	91-110	13
7-12	6	111-132	14
13-20	7	133-156	15
21-30	8	157-182	16
31-42	9	183-210	17
43-56	10	211-240	18
57-72	11		

Visual Display: The PMOSE/IKIRSCH measure was used to evaluate structure and density in displays, such as charts, lists, and graphic displays. The measure provides a grade level score based on the complexity of documents and the presence of all necessary information contained within the document. The PMOSE/IKIRSCH document readability formula offers a rating based on three different criteria:

1. Structure: the score is based on levels of difficulty for either a list or a graphic display depending on the very design of the document.

Question: What is the design of the document?

2. Density: the score is based on the number of labels and the number of items.

Question: How many titles and items are presented to the reader?

3. Dependency: the score is based on whether any important information is to be found outside the document.

Question: Does the reader have to look outside of the document for important information?

Clear Communication: The Center for Disease Control and Prevention's (CDC's) Clear Communication Index (Index) was used to provide an overall outcome measure of audience appropriateness and readability, which was a composite of measures related to the applicability of one of four factors – core items, behavioral recommendations, numbers, and risk. The Index stresses that analysis and discourse must examine issues of culture in addition to, and in the context of, health literacy. The Index contains 20 items, each with a numerical score of zero or one. The individual scores are converted to an overall score on a scale of 100. Although 100 is an ideal score, 90 or higher is passing. The Index assesses materials in these seven areas:

1. Main Message and Call to Action

2. Language

3. Information Design

4. State of the Science

5. Behavioral Recommendations

6. Numbers

7. Risk