



I love you with all my lungs: On Communicating Effectively and Positively about Lung Health

Journal:	<i>European Respiratory Journal</i>
Manuscript ID	ERJ-00919-2024
Manuscript Type:	Viewpoint
Date Submitted by the Author:	13-May-2024
Complete List of Authors:	Soriano, Joan B; Hospital Universitario de la Princesa, Universidad Autónoma de Madrid; Lumbreras Sancho, Sara; Comillas ICAI, IIT Celli, Bartolome ; Brigham and Women's Hospital, Pulmonary and Critical Care Division Jenkins, Christine; Concord Hospital, The George Institute for Global Health; UNSW, Respiratory Medicine
Key Words:	CRD; Implementation research; Lung health; NCD; Positive: Tobacco
Abstract:	N.A.

SCHOLARONE™
Manuscripts

I love you with all my lungs: On Communicating Effectively and Positively about Lung Health

Joan B Soriano, MD,^{1,2,3} Sara Lumbreras, PhD,⁴ Bartolomé R Celli, MD,⁵ Christine R Jenkins, MD^{6,7}

¹ Servicio de Neumología, Hospital Universitario de la Princesa, Madrid, Spain

² Facultad de Medicina, Universidad Autónoma de Madrid, Madrid, Spain.

³ Centro de Investigación Biomédica en Red de Enfermedades Respiratorias (CIBERES), Instituto de Salud Carlos III, Madrid, Spain.

⁴ Departamento de Organización Industrial, Escuela Técnica Superior de Ingeniería (ICAI), Universidad Pontificia Comillas - IIT, Madrid, Spain.

⁵ Department of Medicine, Harvard University Medical School, Boston, MA, USA.

⁶ Respiratory Group, The George Institute for Global Health, Sydney, Australia. UNSW Sydney, Sydney, Australia.

⁷ Concord Clinical School, University of Sydney, Sydney, Australia.

Email and ORCID:

jbsoriano2@gmail.com 0000-0001-9740-2994

slumbreras@comillas.edu 0000-0002-5506-9027

christine.jenkins@sydney.edu.au 0000-0003-2717-5647

BCelli@copdnet.org 0000-0002-7266-8371

File information

File name: I lung you – ERJ Viewpoint.docx

Date: 13 May 2024

Current wordcount: 832 words

Number of references: 21 references

Illustrations: 1 table and 1 figure

Keywords: CRD; Implementation research; Lung health; NCD; Positive: Tobacco.

Journal target: ERJ Viewpoint (up to 2,000 words and 40 references)

1
2
3 44 **Text:** The respiratory community is slowly but progressively learning effective
4
5 45 communication strategies for promoting positive messages on lung health.^{1,2}
6
7
8 46 Implementation research, or the systematic study of methods that support the
9
10 47 application of research findings and other evidence-based knowledge into policy and
11
12 48 practice,³ has been ill-used in noncommunicable diseases (NCD),⁴ particularly in
13
14 49 chronic respiratory diseases (CRD).⁵ It is time to change that, as lung health is a
15
16 50 fundamental component of overall well-being; and there cannot be health without
17
18 51 lung health.⁶ After all, the Vital Capacity obtained by spirometry is “vital”, because its
19
20 52 impairment is a strong predictor of mortality in otherwise healthy individuals.⁷
21
22 53 Communicating effectively about lung health is essential for raising awareness,
23
24 54 promoting preventive behaviours, and fostering positive attitudes toward respiratory
25
26 55 well-being.

27
28 56
29
30 57 In this viewpoint, we explore effective strategies to communicate positive messages on
31
32 58 lung health, when addressing the broader community.⁸ Drawing on insights from the
33
34 59 development of health campaigns in general, from the pharma industry, and even
35
36 60 from the dark side, namely tobacco manufacturers and their allies (who actually
37
38 61 invented marketing),⁹ we highlight key principles and best practices for effective
39
40 62 communication in respiratory medicine.

41
42 63
43
44 64 We need to understand the importance of positive messages.¹⁰ For decades, COPD
45
46 65 was considered a disease defined by the triad of an older male who smokes; and
47
48 66 patients with COPD and their relatives felt a shared sense of guilt that in certain cases
49
50 67 involved their doctors.¹¹ Fortunately, this is changing, and COPD is now considered a
51
52
53
54
55
56
57
58
59
60

1
2
3 68 preventable, treatable disease;¹² and smoking with nicotine addiction is defined as a
4
5 69 disease by WHO, with code F17 in the ICD-10-CM (International Classification of
6
7
8 70 Diseases, 10th Revision, Clinical Modification), and with further specific codes related
9
10 71 to tobacco use and exposure (Z72.0 Tobacco use; Z72.1 Tobacco dependence; and
11
12
13 72 Z72.9 Tobacco use, unspecified). These are typically used in conjunction with codes for
14
15 73 specific tobacco-related diseases or conditions, such as COPD (J44.9), lung cancer
16
17 74 (C34.90), and cardiovascular diseases (I25.10), although we now understand that each
18
19
20 75 of these diseases is associated with many risk factors in addition to tobacco.
21

22 76
23
24
25 77 Positive, effective communication about lung health requires a shift from fear-based
26
27 78 messaging focused solely on the risks and consequences of respiratory diseases, to a
28
29
30 79 positive approach emphasizing the benefits of promoting lung health and quality of
31
32 80 life. Positive messages can motivate individuals to adopt healthy behaviours, seek
33
34
35 81 timely medical care, and take proactive measures to protect their respiratory health.¹³
36

37 82 It has been shown that emotion is the main component that leads to action; of all
38
39 83 emotions, sadly, fear is the one that is thought to have the largest impact on health
40
41
42 84 behaviours. However, over stressing fear can be counter-productive, leading
43
44
45 85 individuals to feel overwhelmed,¹⁴ and the targets of scaremongering. Research shows
46
47 86 that approaches that focus on the benefits often lead to more stable changes in
48
49 87 behaviour.¹⁵ By highlighting success stories, encouraging positive self-perceptions, and
50
51
52 88 promoting a sense of empowerment, positive messaging can inspire hope and
53
54 89 resilience among patients and the community. Several strategies for effective
55
56
57 90 communication in lung health and CRDs are listed in the [Table](#). Overall, advances in
58
59 91 communication strategies, engineering, and other fields can be successfully
60

1
2
3 92 implemented in this context ^{16,17} Moreover, lessons from the pharmaceutical industry
4
5 93 highlight the importance of critically evaluating communication tactics and ethical
6
7
8 94 considerations in health promotion efforts.¹⁸ Strategies employed by Pharma, such as
9
10 95 targeted marketing, strengthening of scientific evidence, support by influencers and
11
12
13 96 key opinion leaders, and using persuasive messaging to promote products with health
14
15 97 effects, underscore the need for transparency, accountability, and ethical integrity in
16
17
18 98 health communication practices. Partnering with Pharma to raise the profile of CRDs,
19
20 99 such as the International Respiratory Coalition,¹⁹ is a major step forward.
21

22
23 100

24
25 101 New technologies make it possible to tailor messages to the individual based on
26
27 102 demographics, health conditions, or habits. Communicating personal, bespoke health
28
29
30 103 messages and text messaging to individuals can improve their lung health. It is even
31
32 104 possible to gamify this messaging,²⁰ as has been done to a certain extent with heart
33
34
35 105 and sleep health by the adoption of wearable technology. Further partnerships with
36
37 106 device manufacturers or software providers could reach large audiences and remain
38
39
40 107 relevant in daily activities.

41
42 108

43
44 109 Broad campaigns could disseminate messages that focus the public attention on lung
45
46
47 110 health. Thinking out of the box, should it be nice to write poems with “-I lung you”
48
49 111 (**Figure**) instead of its cardiac-biased original?; or be moved by listening in radio
50
51
52 112 rhythms as “- I love you with all my lungs ...”? Slogans that include “I breathe you” or
53
54 113 “How are you breathing today?” could, if reaching millions, generate unprecedented
55
56
57 114 awareness. To dream with your lungs is the first step to promoting lung health
58
59 115 everywhere.
60

1
2
3 116
4

5 117 To conclude, effective evidence-based communication is a powerful tool for promoting
6

7
8 118 positive messages on lung health, empowering individuals, and mobilizing
9

10 119 communities to prioritize respiratory well-being. We can foster a culture of respiratory
11

12
13 120 health literacy, resilience, and advocacy by leveraging educational, storytelling,
14

15 121 multimedia, and community engagement strategies.²¹ Together, let's aim to
16

17 122 communicate effectively and positively to inspire change and improve lung health for
18

19
20 123 all. Lungly yours...
21

22
23 124
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60

125 **Table. Strategies for effective communication in lung health and CRDs**

<p>Empowerment through Education: Provide accurate, accessible, and culturally sensitive information about lung health campaigns, to emphasize the importance of early detection, symptom recognition, and preventive measures such as smoking cessation, vaccination, and environmental control.</p>
<p>Storytelling and Personal Narratives: Promote real-life stories that will resonate deeply with audiences, humanizing the impact of respiratory diseases and inspiring positive action. Share experiences of individuals who have successfully managed their lung conditions, or adopted healthier lifestyles.</p>
<p>Multimedia and Digital Platforms: Leverage digital platforms, including social media, videos, infographics, tailored text messaging and mobile applications, spreading lung health messages. Create interactive tools, virtual support groups, and online resources to foster dialogue, peer support, and behaviour change.</p>
<p>Community Engagement and Partnerships: Engage communities, stakeholders, and grassroots organizations to promote lung health. Organize community-based initiatives, outreach events, partnering with schools, workplaces, and faith-based organizations.</p>
<p>Cultural Sensitivity and Health Equity: Design inclusive communication strategies that recognize cultural beliefs, values, and socio-economic factors. Develop culturally sensitive messages, appropriate language translations, and targeted outreach efforts that reduce disparities and promote lung health equity.</p>

126

127

128

129

Figure: I lung you

130

131

132 **References:**

- 1 World Health Organization. Chronic respiratory diseases. Available at: https://www.who.int/health-topics/chronic-respiratory-diseases#tab=tab_1 [Accessed on 20 April 2024]
- 2 Wakefield MA, Loken B, Hornik RC. Use of mass media campaigns to change health behaviour. *Lancet*. 2010 Oct 9;376(9748):1261-71. doi: 10.1016/S0140-6736(10)60809-4. PMID: 20933263
- 3 NCD Alliance. Implementation research, what's this? The example of FRESH AIR for chronic lung disease. Available at: <https://ncdalliance.org/news-events/blog/implementation-research-what%E2%80%99s-this-the-example-of-fresh-air-for-chronic-lung-disease> [Accessed on 20 April 2024]
- 4 Prabhakaran D, Anand S, Watkins D, Gaziano T, Wu Y, Mbanya JC, Nugent R; Disease Control Priorities-3 Cardiovascular, Respiratory, and Related Disorders Author Group. Cardiovascular, respiratory, and related disorders: key messages from Disease Control Priorities, 3rd edition. *Lancet*. 2018 Mar 24;391(10126):1224-1236. doi: 10.1016/S0140-6736(17)32471-6. Epub 2017 Nov 3. PMID: 29108723
- 5 NCD Countdown 2030 collaborators. NCD Countdown 2030: pathways to achieving Sustainable Development Goal target 3.4. *Lancet*. 2020 Sep 26;396(10255):918-934. doi: 10.1016/S0140-6736(20)31761-X. Epub 2020 Sep 3. PMID: 32891217
- 6 Soriano JB, Jenkins C. How should good lung health be defined at the population and individual levels? *Eur Respir J*. 2023 Sep 9;62(3):2301166. doi: 10.1183/13993003.01166-2023. Print 2023 Sep. PMID: 37690786
- 7 Ashley F, Kannel WB, Sorlie PD, Masson R. Pulmonary function: relation to aging, cigarette habit, and mortality. *Ann Intern Med*. 1975 Jun;82(6):739-45. doi: 10.7326/0003-4819-82-6-739. PMID: 1094879
- 8 Kreuter MW, Green MC, Cappella JN, Slater MD, Wise ME, Storey D, Clark EM, O'Keefe DJ, Erwin DO, Holmes K, Hinyard LJ, Houston T, Woolley S. Narrative communication in cancer prevention and control: a framework to guide research and application. *Ann Behav Med*. 2007 Jun;33(3):221-35. doi: 10.1007/BF02879904. PMID: 17600449
- 9 *The Cigarette Century: The Rise, Fall, and Deadly Persistence of the Product That Defined America*. By Alan M Brandt, Basic Books: New York, 2007, ISBN 13 978-0-465-07047-3.
- 10 West R. Tobacco smoking: Health impact, prevalence, correlates and interventions. *Psychol Health*. 2017 Aug;32(8):1018-1036. doi: 10.1080/08870446.2017.1325890. Epub 2017 May 28. PMID: 28553727
- 11 Celli BR. Chronic obstructive pulmonary disease: from unjustified nihilism to evidence-based optimism. *Proc Am Thorac Soc*. 2006;3(1):58-65. doi: 10.1513/pats.200510-111JH. PMID: 16493152
- 12 Celli BR. The light at the end of the tunnel: is COPD prevalence changing? *Eur Respir J*. 2010 Oct;36(4):718-9. doi: 10.1183/09031936.00113510. PMID: 20889460
- 13 Evans WD, McCormack L. Applying social marketing in health care: communicating evidence to change consumer behavior. *Med Decis Making*. 2008 Sep-Oct;28(5):781-92. doi: 10.1177/0272989X08318464. Epub 2008 Jun 12. PMID: 18556638
- 14 Tench, R and Bridge, G (2021) Developing Effective Health Communication Campaigns. In: *Strategic Communication in Context: Theoretical Debates and Applied Research*. UMinho Editora/CECS, pp. 67-87. ISBN 9789898974426 DOI: <https://doi.org/10.21814/uminho.ed.46>

1
2
3
4
5
6
7
15 Evans WD, McCormack L. Applying social marketing in health care: communicating evidence to change consumer behavior. *Med Decis Making*. 2008 Sep-Oct;28(5):781-92. doi: 10.1177/0272989X08318464. Epub 2008 Jun 12. PMID: 18556638

8
9
10
11
12
16 Alao OD, Priscilla EA, Amanze RC, Kuyoro SO, Adebayo AO. User-Centered/User Experience Uc/Ux Design Thinking Approach for Designing a University Information Management System. *Ingénierie des Systèmes d'Information* Vol. 27, No. 4, August, 2022, pp. 577-590 Journal homepage: <http://iieta.org/journals/isi> <https://doi.org/10.18280/isi.270407>

13
14
15
16
17
18
17 Communicating to Advance the Public's Health: Workshop Summary. Ellen Bayer and Darla Thompson, Rapporteurs; Roundtable on Population Health Improvement; Board on Population Health and Public Health Practice; Institute of Medicine Washington. Dec 2015. Available: <https://nap.nationalacademies.org/catalog/21694/communicating-to-advance-the-publics-health-workshop-summary> [Accessed on 1 May 2024]

19
20
21
22
23
18 Guttman N. Ethical Issues in Health Promotion and Communication Interventions. *Personal Oxford Research Encyclopedias*. Published online: 27 February 2017. Available at <https://doi.org/10.1093/acrefore/9780190228613.013.118> [Accessed on 20 April 2024]

24
25
26
27
28
19 Franklin M, Angus C, Welte T, Joos G. How Much Should be Invested in Lung Care Across the WHO European Region? Applying a Monetary Value to Disability-Adjusted Life-Years Within the International Respiratory Coalition's Lung Facts. *Appl Health Econ Health Policy*. 2023 Jul;21(4):547-558. doi: 10.1007/s40258-023-00802-y. Epub 2023 Apr 11. PMID: 37039953

29
30
31
32
33
20 Redfern J, Singleton AC, Raeside R, Santo K, Hafiz N, Spencer L, Leung RW, Roberts M, King M, Cho JG, Carr B, Jenkins C, Partridge SR, Hayes A, Chow CK, Hyun K. Integrated Text Messaging (ITM) for people attending cardiac and pulmonary rehabilitation: A multicentre randomised controlled trial. *Ann Phys Rehabil Med*. 2024 Apr;67(3):101800. doi: 10.1016/j.rehab.2023.101800. Epub 2023 Dec 19. PMID: 38118248

34
35
36
37
38
39
21 Meharg DP, Dennis SM, McNab J, Gwynne KG, Jenkins CR, Maguire GP, Jan S, Shaw T, McKeough Z, Rambaldini B, Lee V, McCowen D, Newman J, Monaghan S, Longbottom H, Eades SJ, Alison JA. A mixed methods study of Aboriginal health workers' and exercise physiologists' experiences of co-designing chronic lung disease 'yarning' education resources. *BMC Public Health*. 2023 Mar 31;23(1):612. doi: 10.1186/s12889-023-15508-y. PMID: 36997963