Academies of Sciences, Engineering, and Medicine.

I report receiving honoraria from GlaxoSmithKline for advisory board membership and delivery of continuing medical education lectures, both on asthma and chronic obstructive pulmonary disease.

Matthew J Peters matthew.peters@mq.edu.au

Department of Clinical Medicine, Faculty of Medicine and Health Sciences, Macquarie University, Macquarie Park, NSW 2109, Australia

- Newton JN, Dockrell M, Marczylo T. Making sense of the latest evidence on electronic cigarettes. Lancet 2018; 391: 639–42.
- 2 National Academies of Sciences and Engineering and Medicine. Public health consequences of e-cigarettes. Washington, DC: The National Academies Press, 2018.
- 3 McNeill A, Brose LS, Calder R, Bauld L, Robson D. Evidence review of e-cigarettes and heated tobacco products 2018. A report commissioned by Public Health England. London: Public Health England, 2018.
- 4 Bauld L, MacKintosh AM, Eastwood B, et al. Young people's use of e-cigarettes across the United Kingdom: findings from five surveys 2015–2017. Int J Environ Res Public Health 2017; 14: e973.
- 5 Polosa R, Russell C, Nitzkin J, Farsalinos KE. A critique of the US Surgeon General's conclusions regarding e-cigarette use among youth and young adults in the United States of America. Harm Reduct J 2017; 14: 61.
- 6 Walele T, Bush J, Koch A, Savioz R, Martin C, O'Connell G. Evaluation of the safety profile of an electronic vapour product used for two years by smokers in a real-life setting. Regul Toxicol Pharmacol 2018; 92: 226–38.

Authors' reply

We thank all correspondents for their interest in our Comment.¹

The rise of electronic cigarette (EC) use has not interrupted the long-term reduction in youth smoking in the UK, Canada, or the USA. In England in 2016, just 3% of pupils were found to smoke weekly;2 in Canada in 2015, less than 2% of students in school grades 6-9 were current smokers;3 and in the USA in 2016, 8% of high-school students had smoked in the past 30 days (which had decreased from 16% in 2011).4 Aki Bandara and Vahid Mehrnoush quote a paper⁵ that also shows the lowest rate of adolescent smoking in the most recent (2014) data. Only the combined prevalence of current use of cigarettes or ECs was higher in 2014 than in 2004.

Both responses highlight the differences between the Public Health England commissioned review and the National Academy of Sciences, Engineering, and Medicine report. We stand by our comment that the two reports broadly agree on most of the questions addressed—for example, on relative harm compared with smoking and on the role of ECs in smoking cessation. One area of substantial disagreement is on youth uptake. The National Academy of Sciences, Engineering, and Medicine relies heavily on studies that exclude youths who have already smoked, such as the study⁶ quoted by Bandara and Mehrnoush. Most regular use of ECs by young people is, however, in established smokers who were excluded from these studies. Furthermore, the apparent association between the use of ECs in young nonsmokers and subsequent smoking does not, by any means, show causation.6 Matthew J Peters unfairly accuses the authors of the Public Health England review of selective use of evidence including unpublished sources. Policy should be informed by the latest data, and the authors were asked to include the most recent data available, including survey data not yet in print. Unpublished data and research that had not been peer-reviewed were clearly highlighted.

As we mentioned in our Comment, the evidence on ECs is incomplete and needs careful and ongoing review. However, on the questions we discussed, we are clear that particular messages are emerging, the international consensus is building, and policy makers should take note.

We declare no competing interests.

*John N Newton, Martin Dockrell, Tim Marczylo john.newton@phe.gov.uk

Health Improvement Directorate (JNN, MD), and Centre for Radiation, Chemical and Environmental Hazards (TM), Public Health England, London SE1 8UG, UK

- Newton JN, Dockrell M, Marczylo T. Making sense of the latest evidence on electronic cigarettes. Lancet 2018; 391: 639-42.
- National Health Service Digital. Smoking drinking and drug use among young people in England. https://digital.nhs.uk/data-andinformation/areas-of-interest/public-health/ smoking-drinking-and-drug-use-amongyoung-people-in-england (accessed May 30, 2018).

- Reid JL, Hammond D, Rynard VL, Madill CL, Burkhalter R. Tobacco use in Canada: patterns and trends, 2017 edition. Waterloo, ON: Propel Centre for Population Health Impact. 2017.
- 4 Centers for Disease Control and Prevention. Youth and tobacco use. March 26, 2018. https://www.cdc.gov/tobacco/data_statistics/fact_sheets/youth_data/tobacco_use/index. htm (accessed May 30, 2018).
- 5 Barrington-Trimis JL, Urman R, Leventhal AM, et al. E-cigarettes, cigarettes, and the prevalence of adolescent tobacco use. *Pediatrics* 2016; published online July 11. DOI:10.1542/peds.2015-3983.
- 6 Hammond D, Reid JL, Cole AG, Leatherdale ST. Electronic cigarette use and smoking initiation among youth: a longitudinal cohort study. CMAJ 2017; 189: e1328–36.

The increase of suicide rates: the need for a paradigm shift

Suicide was highlighted as a major public health issue in a recent release of data by the US Centers for Disease Control and Prevention (CDC).1 The CDC reported a 30% increase (1999-2016) in suicide across all age groups up to age 75 years (in half of all US states), and in 2016, 54% of people in 27 US states who died by suicide had no mental health diagnosis. Yet most papers and reports on suicide stress that up to 90% of people who die by suicide had a psychiatric disorder. Despite innovative approaches in both psychiatric treatments and suicide prevention, some important shortcomings seem to have a role in impairing effective progress in reducing deaths by suicide. A paradigm shift is needed that should focus the assessment of suicide risk on the centrality of the mental pain in suicidal individuals.2

Suicide risk is too often considered a symptom of a given disorder or disease, and a medical approach is taken to explain the individual's wish to die. However, as a complex, multifactorial process, suicide risk is generated over the course of several years via the developmental processes of the individual.³ This multifactorial viewpoint suggests that centuries of stigma against people who die by

suicide should be put aside. Historically, people who died by suicide were tried posthumously by a coroner's jury and found guilty of felo de se. Only later did the courts consider that if an individual who had died by suicide had a mental disorder, they should be excused and, therefore, their families should not have the deceased's properties confiscated by the government.⁴ In the era of DSM-5, a suicidal individual's distress or mental pain is seen as needing proper treatment, independent of the diagnosis.⁵

Rates of suicide can only be reduced if resources are devoted to understanding the mental distress of individuals who are suicidal and by promoting effective connection with clinicians. Suicide risk is typically assessed with checklists, psychometric instruments (eq. Beck hopelessness scale, suicide intent scale, suicidal ideation questionnaire, reasons for living inventory), and clinical interviews. Such an approach, although important, does not necessarily promote empathic understanding of patients' negative and painful emotions. Getting in touch with how clinicians respond emotionally to the assessment of suicide risk in their patients could help overcome barriers.

Many unmet needs exist in the care of suicidal people, and suicide prevention measures will only be effective if the subjective experiences of our patients are taken into account.

I declare no competing interests.

Maurizio Pompili maurizio.pompili@uniroma1.it

Department of Neurosciences, Mental Health and Sensory Organs, Suicide Prevention Center, Sant'Andrea Hospital, Sapienza University of Rome, Rome 00189, Italy

- Stone DM, Simon TR, Fowler KA, et al. Vital signs: trends in state suicide rates—United States, 1999–2016 and circumstances contributing to suicide—27 states, 2015. MMWR Morb Mortal Wkly Rep 2018; 67: 617–24.
- 2 Shneidman ES. Suicide as psychache. J Nerv Ment Dis 1993; **181**: 145–47.
- 3 Turecki G, Ernst C, Jollant F, Labonté B, Mechawar N. The neurodevelopmental origins of suicidal behavior. Trends Neurosci 2012; 35: 14–23.

- 4 Alvarez A. The savage god: a study of suicide, London, Bloomsbury: 1971.
- 5 American Psychiatric Association. Diagnostic and statistical manual of mental disorders: DSM-5. Arlington, VA: American Psychiatric Publishing, 2013.

A century ago: Carlo Forlanini and the first successful treatment of tuberculosis

"They have formed a group, for of course a thing like the pneumothorax brings people together. They call themselves the Half-Lung Club."

Thomas Mann

With these words, Thomas Mann, in *The Magic Mountain*, characterises a group of patients who underwent artificial pneumothorax, which was, at the time, the only effective treatment against tuberculosis.

Mann's writing seems to be up-to-date from a medical point of view, describing an operation that achieved international fame in 1912, thanks to Carlo Forlanini (1847–1918), professor of medicine at the University of Pavia. The pulmonary tuberculosis process leads to the formation of infectious cavities responsible for the physical deterioration of the patient and for the spread of the disease by air. The artificial pneumothorax induced the collapse of the affected lung by injecting nitrogen between the parietal and the visceral pleura.

Forlanini enrolled in 1864 in the medical school of Pavia University as a student of the experimental pathology laboratory, established by the pathologist Paolo Mantegazza, one of the supporters of Darwinian theories in Italy.² There, he met Camillo Golgi, future winner of the Noble Prize in Medicine, and the pathologist Giulio Bizzozero,³ with whom he established a long-lasting friendship.^{4,5} In 1882, Forlanini proposed the therapeutic pneumothorax, but the medical setting of the time,

fascinated by the great microbiology achievements, was sceptical towards such a therapy; only in 1912 was the value of his method was ratified. The invention of Forlanini was widely used all over the world, until Selman Waksman discovered streptomycin. The memory of Forlanini, 100 years after his death, is also an opportunity to remember that the battle against tuberculosis has not yet been won.

We declare no competing interests.

Maria Carla Garbarino, Valentina Cani, *Paolo Mazzarello paolo.mazzarello@unipv.it

Department of Brain and Behavioral Sciences (PM) and University History Museum (MCG, VC, PM), University of Pavia, 27100 Pavia, Italy

- 1 Mann T. The magic mountain. New York: Alfred A Knopf, 1949: 50-51.
- Garbarino C, Mazzarello P. A strange horn between Paolo Mantegazza and Charles Darwin. Endeavour 2013; 37: 184–87.
- 3 Mazzarello P, Calligaro Al, Calligaro A. Giulio Bizzozero: a pioneer of cell biology. Nat Rev Mol Cell Biol 2001; 2: 776–81.
- 4 Mazzarello P, Garbarino C, Calligaro A. How Camillo Golgi became "the Golgi". FEBS Letters 2009; 583: 3732–37.
- 5 Mazzarello P. Golgi: a biography of the founder of modern neuroscience. New York: Oxford University Press, 2010.

Zero tolerance on claims of harassment at UN agency

I read with interest and concern the Special Report by John Zarocostas (April 21, pp 1561–65). It is essential that UN agencies provide a safe and secure working environment for their staff, and that all incidents of sexual harassment or abuse are addressed immediately and dealt with appropriately.

On the one hand, the report¹ refers to Martina Brostrom's claim of sexual harassment against the then Deputy Director, Luiz Loures, the opinion of Paula Donovan that the case was "grossly mishandled", the opinion of Stephen Lewis that António Guterres was "confronted by a gross miscarriage

