



GREEN PAPER on the European Workforce for Health, COM(2008)725

ERS response to the Green Paper on the European Workforce for Health

19th March 2009

1. Introduction

The European Respiratory Society, ERS, welcomes the Green Paper on the European Workforce for Health, which aims to address a number of challenges facing health systems in Europe and outlines a number of areas where Community action could complement national policies.

Founded in 1990, the ERS is an international scientific society, composed of nearly 9000 members in over 100 countries who represent pneumologists and other medical disciplines (paediatricians, intensive care, oncology, thoracic surgeons, epidemiologists etc); scientists and allied health professionals in the field of respiratory medicine across Europe and globally. The ERS mission is to alleviate suffering from respiratory disease and to promote lung health through research, knowledge sharing, medical and public education and advocacy. For further information about the ERS, see www.ersnet.org.

2. Rationale for the Green Paper

Respiratory diseases are a major public health concern in Europe, and the ERS highlights a number of aspects of respiratory disorders, as the majority are chronic and preventable and affect a large proportion of the European (and world) population.

The ageing population and changes in lifestyle are central factors in the increasing prevalence of chronic disorders, including conditions such as asthma and chronic obstructive pulmonary disease (COPD). Chronic non-communicable diseases represent almost 80% of the burden on healthcare systems in Europe, playing a dominant role in both mortality and disabilities.

3. Legal framework and basis for action at EU level

The ERS agrees with the legal basis outlined in point 3 of the consultation and anticipates that, should the Lisbon Treaty be ratified- the Commission would as inferred in this Green paper increase its competences under Article 168 of the Treaty.

While recognising that the principal responsibility for health services still lies with the Member States, Article 168 of the Treaty of Lisbon states that EU action to encourage cooperation between Member States shall in particular concern the **improvement of their health services in cross-border areas**. Likewise, the Commission may promote Member States coordination in order to **establish guidelines and indicators; organise**

exchange of best practices, and prepare the necessary elements for periodic monitoring and evaluation. It is hoped these new elements of primary law would apply to a sustainable health workforce in Europe and would be thoroughly reflected in any proposed secondary legislation.

4. Factors influencing the workforce for health in the EU and the main issues to be addressed

4.1. Demography and promotion of a sustainable workforce

Organising chronic diseases management

A recent analysis of the burden of all chronic conditions has shown that COPD is the fourth-largest cause of hospital admission and that it forms an even greater proportion of those patients requiring multiple admissions. The **National COPD Audit 2008**¹ recently carried out in partnership by the Royal College of Physicians, the British Thoracic Society and the British Lung Foundation, under the auspices of the National COPD Resources and Outcomes Project (NCROP), funded by The Health Foundation, represents a major undertaking encompassing both Primary and Secondary Care within England, Scotland, Wales, Northern Ireland and the Channel Isles.

The audit engaged clinicians, managers and patients in both the acute and community sectors. Data was collected from 98% of Acute Trusts in UK, 10,000 cases of exacerbation, 73% of Primary Care Organisations, 3000 General Practitioners and 3000 patients with COPD. It is evident that the data emphasise how important it is for Primary and Secondary Care Organisations to work better together if integrated clinical services are to develop. There are ample opportunities for earlier intervention when in exacerbation and **there is a need to improve access to some key aspects of service, notable pulmonary rehabilitation and palliative care.**

- The issue of quality and access to health care, particularly for COPD, is an important one. **The ERS believes it would be a valuable undertaking to extend the scope of such an audit further across the care pathway, and to explore the possibility of cross-border audit work to improve our understanding of the range and attributes of different care models in different EU Member States.**

Moreover, unlike patients with cancer, patients with COPD and/or cardiac disorders were mostly admitted via emergency rooms as unplanned hospitalisations. In view of the high social and economic burden generated by COPD, new strategies aiming to decrease admissions through patient empowerment and implementation of alternatives to conventional hospitalisation have been developed in recent years. Short-stay units, day hospitals and home-based programmes, such as "the hospital at home", are good examples of innovative services addressing the needs of COPD patients.

4.1.1 Pulmonary Rehabilitation (PR) and home-based programmes as a way to reduce hospitalisations

Patients with chronic respiratory disease are heavy users of health care and social services resources worldwide. **Pulmonary Rehabilitation (PR) has become recognised as central to the comprehensive management of patients disabled by chronic respiratory disease.** Furthermore, such programmes can reduce health care costs as a result of a reduction in the number of hospital admissions and the length of stay. However

¹ The reports and further information about the National COPD Audit 2008 are available on the webpage <http://www.rcplondon.ac.uk/copd>

PR as a practice in Europe is very inhomogeneous and even within single countries there are great variations in its use.

- **There is a need to optimize the availability and quality of PR in Europe**, especially since rehabilitation is acknowledged as cost effective for these patients i.e. moderate-advanced COPD. **Concerted efforts are needed to encourage health care delivery systems to provide this therapy and make it affordable.**
- **In particular with regard to COPD, a European-wide survey is needed to evaluate the availability and quality of PR treatment across Europe and within single countries, with special focus on the services for outpatient rehabilitation, which represent the most important mode for providing rehabilitation in long term COPD management. Based on this survey, a strategy can then be elaborated of the needs of each country (and within each country) to optimize the availability and quality of rehabilitation.**

Systematic reviews of a number of randomised trials have demonstrated small-to moderate improvements in functional exercise capacity and health-related quality of life (HRQoL) in patients with chronic obstructive pulmonary disease (COPD) who receive pulmonary rehabilitation (PR).

- The evidence to date suggests that, in terms of exercise capacity and much more expensive hospital-based programmes. **Home based PR programmes have also been shown to reduce the use of medication and the number of exacerbations and hospitalisations. These programmes may even provide longer-lasting benefits.** Therefore, such programmes can be prescribed with confidence. However, they must be well-structured and adhere to some guidelines: **(i) Initial instructions should be given at the hospital, based on the severity of the disease; moreover, the intensity and type of programme, comorbidities and the need for supplemental oxygen should be considered carefully; (ii) Some degree of supervision, either at home or in the hospital, should be included in the programme.**

4.1.2 Integrated care of the patient dying of non-malignant respiratory disease

The development of palliative care as a specialty in its own right has led to great improvements in the care of patients with end stage disease and in particular those with malignant disease. A great inequality currently exists in access to services between patients dying with malignant and non-malignant respiratory disease. This is in part due to lack of resources, which constrains the wider availability of palliative care programmes in the health care system.

Chronic respiratory disease accounts for one-third of all deaths in Europe. Chronic obstructive pulmonary disease (COPD) is the leading cause of non-malignant respiratory disease and, by 2020, will be the third leading cause of death worldwide. Indeed, studies have shown that very few patients with moderate-to-severe COPD have discussed end-of-life issues and treatment preferences with their physicians, although the majority would value this opportunity.

In the period leading up to death only 2–3% of those dying from non-malignant disease, access specialist palliative care. Across Europe and the developed world, most people with chronic respiratory disease die in hospital, although it is known that few would make this choice.

Currently, the vast majority of palliative and end-of-life care provided to those with non-malignant disease is supplied by family, carers and non-specialist community healthcare professionals. **It is therefore perhaps not surprising that patients without a cancer diagnosis are reported to receive inadequate end-of-life care.** Although in recent

years there have been improvements in end-of-life care both for patients with lung cancer and those with non-malignant respiratory diagnoses, there remains much work to be done.

- **The ERS strongly supports initiatives to improve the training of physicians and healthcare professionals in order to improve communication** with patients and their families. In this context **integrated care pathways** can aid healthcare professionals in providing better end-of-life care by well-led multidisciplinary teams.
- However there remains a lack of evidence to support best practice in many aspects of end-of-life care, from patients' and families' wishes regarding communication issues to the most effective methods of achieving good symptomatic relief. **More research is urgently required into what patients near the end of life and their families need and want, and how we can best achieve this.**

4.1.3 Smoking cessation

The cigarette smoking epidemic carries a substantial health burden and high costs for the economy. It is estimated that, with well over 1 billion smokers worldwide, tobacco use is the chief avoidable cause of illness and premature mortality worldwide. However health risks associated with cigarette smoke can be reversed following a sufficient period of abstinence, and achieving life-long abstinence is an important public health goal.

Smoking cessation is an important component of tobacco control policies. Typically the spectrum of available smoking cessation interventions ranges from simple advice to intensive behavioural support and pharmacological treatment. However many smokers respond poorly to smoking cessation efforts, with rather disappointing overall success rates in terms of long-term abstinence.

The perceived lack of effectiveness of many current smoking cessation interventions may well influence how physicians set their priorities with regard to an effective use of their consultation time.

- **Identification of individual characteristics that predict success in smoking cessation efforts is highly desirable**, as this could help to match smokers with a more effective cessation strategy, to identify who might need more intensive treatment and to make the most of healthcare resources.
- Although brief advice from a medical professional may occasionally be successful in motivating smokers to quit, more intensive interventions are usually required. **Although supporting medicines and nicotine replacement can approximately double the rate of abstinence more research and development of safe and effective interventions with or without supporting medicines is required. Smoking cessation courses should also form a mandatory element of the curriculum of medical and other health care professionals enabling them to take ownership and responsibility for the process.**

4.3. Public Health Capacity

Strengthening capacity for health promotion and disease prevention

An important component of the ERS mission is to promote disease prevention

As the major European organisation supporting healthcare professionals working in the field of respiratory medicine, we have a responsibility to raise public awareness of chronic respiratory diseases and to support initiatives that will help sustain lung health.

4.2.1 Coherent and preventive strategies for combating tobacco use.

Age at initiation of smoking is a significant predictive factor for continuation of smoking later in life and is a critical factor in poor cessation outcomes. Furthermore those who begin smoking at age <14 years are more likely to become heavy smokers than those who began when they were aged 20 years.

A recent survey published in the Lancet (which was undertaken at 395 sites in 131 countries), showed that the current rate of smoking in 13-15 year olds was highest in the European region (17.9%). Moreover, among students who had never smoked cigarettes, the rate of susceptibility was highest in the European region (30.5%) and exposure to second-hand smoke was highest overall in the European region (84.8%).²

- The high impact of smoking on the burden of respiratory and other diseases means that smoking cessation the **prevention of smoking in children should continue to be a priority for action in the European Union.**
- **In addition to measures outlined below significant reduction in adult smoking prevalences would also reduce the uptake of smoking in children.**

Many steps have been initiated and realised in the EU such as smoke free public places, cafes and restaurants and progressive and harmonised increments of tobacco taxes and labels with warnings on the tobacco products. These steps are very important and have already had an effect, and reducing smoking prevalence in many countries across Europe.

- **Further steps such as banning of advertising, banning the promotion of smoking by adult role models in films and the media, and the need to increase taxes on tobacco are required.**
- **The Commission must continue to press for full implementation of WHO FCTC principles in all sectors including the health workforce.**

4.2.2 The threats of climate change and respiratory disease

Climate change, and its driver green house gas emissions, will affect human health and for respiratory medicine through (i) Increased number of deaths and acute morbidity due to heat waves; (ii) Increased frequency of cardio-respiratory events due to higher concentrations of ground-level ozone; (iii) Changes in frequency of respiratory diseases from trans-boundary long-range air pollution e.g. related to forest fires and dust storms; (iv) Altered spatial and temporal distribution of allergens and some infectious disease vectors.

These environmental factors will affect not only those with existing respiratory disease but are also likely to increase the incidence and prevalence of respiratory conditions.

- The main disease areas of concern are asthma, rhino-sinusitis, COPD and respiratory tract infections but the extent to which these will be impacted will vary according to the proportion of susceptible individuals in a given population.
- **Areas of greater poverty with limited access to medical services will suffer more** as will those areas with less well developed medical services which will include migrating populations and those where population growth is greatest.
- There are many knowledge gaps, and consequently **much research is needed into improving predictive models**, supplemented by continuous prospective measurement and assessment of the key outcomes and exposures which determine

² Patterns of global tobacco use in young people and implications for future chronic disease burden in adults, C W Warren et.al Vol 367 March 4, 2006 www.thelancet.com accessed 29 January 2009

the impact of climate change on respiratory health. The complexity of the issues involved requires coordination and collaboration across research disciplines.

4.2.3 A re-emerging and fatal health threat: Multi drug-resistant tuberculosis (MDR-TB) and extensively drug-resistant TB (XDR-TB).

The emergence of strains resistant to the two most widely used anti-TB agents – isoniazid and rifampicin (MDR) as well as to second-line antibiotics (XDR) poses a serious challenge to TB control. According to the latest World Health Organisation report on TB, the European region suffers from the highest incidence of drug-resistant TB strains, lowest detection rates, and counts as one of the worst regions world-wide in terms of successful treatment outcomes. The ECDC adopted in February 2008 a Framework Action Plan to fight tuberculosis in the European Union.

- The ERS recommends that the **EU should take action which aims at strengthening the capacity of Member' State's health systems to provide for TB control and elimination. This can only be achieved by ensuring adequate human resources and infrastructure and by guiding and supporting the relevant health professionals and professional associations.**
- **In particular, strengthening of laboratory services in the EU including access to quality-assured diagnoses and drug-sensitivity tests should be a priority.** Although it is a Member State's responsibility to establish a national network of TB laboratories, our view is that the contribution from relevant EU institutions should be to support, in collaboration with the WHO, good laboratory practice and the application of standards for TB-control.

Collecting better information about actual and potential population health needs.

4.2.4 Better data needed for tuberculosis (TB)

European countries report national tuberculosis (TB) surveillance data annually to EuroTB, a network funded by the European Commission. Although TB mortality has reached very low levels in the developed world, the proportion of pulmonary TB cases that die in most countries of the EU is one of the highest in the world. The burden of TB deaths in Europe is higher than that of other key infectious diseases.

- **Information not currently available in the European dataset but which may be relevant from the public health point of view should be collected in future (HIV status, chronic obstructive pulmonary disease, alcohol abuse, drug abuse, malignancy, diabetes, tobacco smoking, etc.).**
- **The higher risk in the elderly is partly due to increased comorbidity.** The association with male sex could be a result of repeated treatment interruptions among males.
- **The ERS supports the work of the Tuberculosis Network European Trials Group (TB-NET),** which was set up in 2006 to promote clinically oriented, industry-independent research in the field of TB in Europe by sharing and developing ideas and research protocols. Members of TB-NET are very active and largely consist of European, research-oriented clinicians, microbiologists, epidemiologists and public health specialists with an interest in TB and mycobacteria diseases. **One of the next important steps of TB-NET will be the implementation of a pan-European register for patients with MDR and XDR-TB. TB-NET will be developing a patient register consisting of important information on the safety, tolerability and efficacy of different drug combinations used in long term treatment, and will allow for essential information to further improve the treatment of patients with MDR- or XDR-TB.**

TB patients in the EU originating from high-prevalence countries were less likely to die than European patients (the "healthy migrant" effect) a phenomenon which has been attributed to the better physical condition of the average foreign patient when compared with the native. It is also possible that migrant workers with TB are detected earlier as a result of active screening.

Promoting the work of occupational health professionals

4.2.5. Work-related respiratory diseases

Respiratory diseases rank third among occupational diseases in the European population imposing serious social and life-quality problems in those affected. Among the disease with short latency time, an increasing problem is foreseen for occupational asthma, since there is an increasing prevalence of asthma in the cohorts about to enter the workforce in the European countries.

- **There is a need at EU-level to fight these diseases, and to coordinate national strategies in this respect.** Only then will we be able to increase the health of the workforce, and bring down the cost imposed on the health system. **It is imperative that the knowledge of the respiratory burden is disseminated to employers, who bear the responsibility for a safe and sound work environment according to current EU legislation.** This is where the role and work of occupational health professionals is critical, and should be further enhanced and developed .

4.3. Training

Part of the ERS role and mission is to provide and organise continuous medical education (CME) and continuous professional development (CPD) of respiratory health professionals. The [ERS School](#) provides training and education for clinical specialists and allied professionals in respiratory medicine. It also promotes the harmonisation of training across Europe, with the aim of achieving the highest quality of practice and the best standard of patient care. The ERS promotes and supports respiratory science through the dissemination and exchange of knowledge at the Annual Congress, the Lung Science Conference and research seminars, and via scientific publications and the production of guidelines.

Focusing on health professionals continuous professional development

4.3.1 Harmonizing medical education in respiratory medicine across the EU

The ERS School is leading the *Harmonised Education in Respiratory Medicine for European Specialists (HERMES)* programme as a response to the need for common standards in medical education and training across Europe in the field of respiratory medicine. ERS has developed a European Core Syllabus and 'Core Curriculum' in adult respiratory medicine and is now finalising one in paediatric respiratory medicine. The overarching goal of *HERMES* is to secure that patients can be confident of receiving high-quality treatment no matter where they are, but also to allow for greater flexibility for respiratory practitioners in their career paths.

- An anticipated positive effect of the ERS School *HERMES* project is to raise the **general standard and quality of specialist medical education and training throughout the EU-27 by creating pan-European educational structures for specialists in respiratory medicine.** This is of particular interest to small countries which often struggle with a lack of resources and/or experience on developing a specialist curriculum at national level.

4.3.2. Approaches to strengthen European multidisciplinary management and education of health professionals in lung cancer

- There is a growing need to develop an integrated approach and an updated overview on prevention, screening, diagnosis, treatment modalities and results of translational research and to cooperate in the field of education of healthcare professionals treating malignant chest tumours. A first conference on the topic will be held on 1-3 May 2009 – **The European Multidisciplinary Conference in Thoracic Oncology**, see <http://www.esmo.org/events/lung-2009.html>. This initiative is driven by the European Society for Medical Oncology (ESMO), the European Society for Therapeutic Radiology and Oncology (ESTRO), the European Society of Thoracic Surgeons (ESTS) and the European Respiratory Society (ERS) and is the first of its kind. **The EU should actively promote multidisciplinary educational events targeting health professionals and especially in the field of for lung cancer, which today represents the biggest cancer killer in Europe but unfortunately remains totally invisible and underfunded.**

4.3.3. Language skills

Language is still a major issue amongst clinicians, and although English has become the international language of both business and science, poor language skills remain a considerable barrier with regard to mobility.

- **We encourage the EU to take all necessary action to promote the development of language skills amongst practicing clinicians and health professionals**
- With a view to ensuring patient safety, health professionals who wish to practice in a given country need of course to master the language of the Member State in question.

4.3.4. Communication skills in end-stage respiratory disease

Much of the research, relating to communication skills in end-of-life care, has been developed in cancer care and where it has been shown that developing the confidence and skills to care expertly for the dying is as important as maximising treatments and curative therapies. Patients will continue to die from respiratory diseases, and managing end-of-life care successfully can be a rewarding experience for a specialist and a comfort for both patient and carer.

While some respiratory conditions, such as idiopathic pulmonary fibrosis (IPF) and lung cancer, can be aggressive and short in duration, others, such as COPD, may involve a slow and uncertain disease trajectory over a number of years.

- The avoidance of distress often involves anticipating predictable problems and planning ahead. Underlying the three frameworks currently being used is the fact that suffering and death are ultimately unavoidable. The role of health and social care professionals is to ensure that predictable and unnecessary suffering is avoided. The courage to embark on uncomfortable conversations with patients and families can be developed through training for which models have been developed with regard to listening and responding to patient concerns and symptom management. **In order for teams to avoid predictable and unnecessary suffering towards the end of life, organisation and planning are essential.**
- **Understanding the models of coordination of palliative care in cancer and applying these to patients with advancing chronic disease should be further developed.**

4.4. Managing mobility of health workers within the EU

Promoting “circular” movement of staff

The ERS directly supports science and research particularly through research fellowships. The ERS Fellowship Programme, which has been running since 1998 provides medical doctors and respiratory investigators opportunities to conduct projects in a clinical or research unit in another European country and has over the years grown to be a highly-esteemed programme supporting the best researchers and clinicians in respiratory science in Europe. Applications undergo an impartial and rigorous peer-review evaluation by recognised international experts.

The ERS launched in February 2009 a completely new fellowship programme that has been granted co-funding from the **Marie Curie Actions** COFUND-programme of the European Commission's **Seventh Framework Programme for Research (FP7) 'People' Programme**. This mobility scheme aims to stimulate post-doctoral career opportunities in the respiratory field within Europe, and will boost the careers of the fellowship recipients, as well as also promote the European Research Area by creating the platform needed to enhance and maintain scientific networks, and retaining promising researchers in Europe.

4.4.1 The further development of EU mobility schemes for health professionals

- **Investing in research and clinical networks of specialists across the EU is crucial to ensure advancements in the field of life sciences and also to improve medical training and research.** The ERS has launched a Visiting Professorships programme enabling senior investigators and clinicians, at an established stage of their career, to conduct exchange-visits between laboratories, hospitals and university departments. The main aim of this scheme is for the host institution to benefit from the expertise of the visiting professor. **Such similar initiatives and instruments could be further developed and supported at EU-level to raise the quality and standard of medical training and research across Europe.**
- **The ERS would favour a European framework that would ensure the portability of social security provisions for researchers and or health professionals across Europe.** However, any legislative action would have to be carefully framed in order to avoid unintended negative consequences and displacement of researchers to regions with less regulated employment conditions but with excellent research facilities.

5. The impact of New Technology: Improving the efficiency

If the epidemiological changes associated with population ageing, changing lifestyles and a growing prevalence of chronic disorders (including COPD) are to be addressed successfully; an essential development will be to focus on the evolution of health systems from a provider-centred perspective to a patient-focused approach. In this new scenario, a major issue will be the extensive use of information communication technology (ICT) and the Internet for public access and to effectively promote information sharing among professionals, the public and formal and informal caregivers.

However there remains a danger in the dissemination of biased or incorrect information unless these developments are driven by professional and ethical standards. **Information such as the use of medicines should remain the responsibility of the current regulatory frameworks with appropriate expert and advice in order to avoid conflicts of interest.**

Taking action to encourage the use of new information technologies

A new, integrated model of care is needed that reduces the impact on patients, healthcare systems and society as a whole while bridging the gaps between strata of healthcare provision, and empowers patients and carers. This model must cover all aspects, from prevention and early diagnosis, through personalised care plans all the way to end-of-life care. The ultimate aim should not be solely to manage disease, but to improve the prognosis of chronic disorders. For this, highly standardised interventions together with continuous evaluation of results will be required.

- **Significant changes in healthcare organisation and education are urgently needed in order to prepare healthcare professionals for new and evolving roles.**
- A number of pilot studies have begun to address these issues. Among them, is a recently launched EU project "Supporting Healthier and Independent Living for Chronic Patients and the Elderly (**NEXES**)" funded by the ICT Policy Support Programme (ICT PSP) of the EU Competitiveness and Innovation Programme (CIP). **NEXES aims at extensive deployment and sustainability of validated integrated care services in elder populations, thus supporting healthier and independent living in these individuals by using information and communication technology (ICT) to link stakeholders at all levels.** This will be done by validating four ICT-enabled integrated care programmes in large scale trials (5200 patients) targeting prevalent conditions. If such initiatives are successful, we can hope for a brighter future for COPD patients.
- While the role of ICT in supporting innovative integrated care services is unquestionable, there are several unsolved issues. **Any platform must be modular to enable expansion and robust through redundancy. Co-development and interoperability of ICT platforms are major technological elements contributing to sustainability.** These technological challenges must be overcome to achieve standardisation and ensure shared arrangements across levels of care. The final aim is primarily concerned with normalising service delivery practices and integrating them seamlessly with ICT. The above elements must go hand in hand with the necessary financial rearrangements, supported by well-defined business cases. The rationale is that the interplay among these factors will favour the implementation of new systems in daily practice, leading to growth in provision and uptake.
- Despite its promise there are **significant gaps in the methodology of validating innovative healthcare services supported by ICT.** These partly explain the lack of data formally validating the role of ICT in healthcare. The current approach is to use RCTs (Randomised Controlled Trials), although health technology assessment agencies and experts acknowledge **the need for new and more appropriate methodological approaches conceived specifically for validating healthcare services and their associated ICT tools.**

7. Cohesion Policy

The Cohesion Policy and the Structural Funds could be used to tackle a number of the challenges pertaining to developing the health workforce. A pertinent public health issue for the European region is **the real threat posed by multi-drug resistant (MDR)-TB** and the need to effectively control and manage TB. The WHO European Region has the highest burden of multidrug-resistant tuberculosis (MDR-TB) than any other region in the world. MDR-TB is usually caused by improper patient care and supervision. **The need to support the investment and training of health professionals, laboratory personnel, and strengthening health systems in the field of TB control is particularly pressing also at EU-level.** See also section 4.2.3 and 4.2.4.

- TB laboratories in Europe are not integrated, and **the real and urgent issue for TB-control and management is linked to capacity and human resources and the need to strengthen laboratory support**, especially in the Baltic States and the former Soviet countries that have the highest prevalence of MDR-TB in the world. **The European Social Fund and European Regional Development Fund should be used to invest in the education and training of health professionals and in health infrastructure to combat the threat of MDR-TB.**

Founded in 1990, the [European Respiratory Society](#) (ERS) is an international scientific society, composed of nearly 9000 individual members in over 100 countries who represent clinicians, chest physicians, allied health professionals in the field of respiratory medicine across Europe and globally.

It is the pre-eminent medical society in Europe in its field and represents the main forum for exchange and continuing education for medical doctors and scientists engaged in basic, translation and applied lung science in Europe and beyond. The ERS mission is to alleviate suffering from respiratory disease and to promote lung health through research, knowledge sharing, medical and public education and advocacy.

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