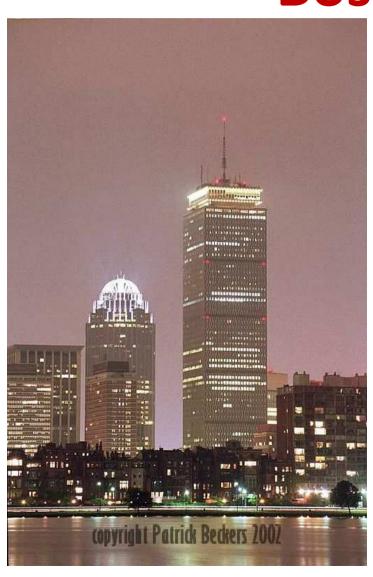


LE MALATTIE RESPIRATORIE UNA NUOVA EMERGENZA

Francesco Blasi
ERS President 2012-13
Dipartimento Fisiopatologia e Trapianti
Università degli Studi di Milano

Prudential building Boston, MA



"The future belongs to those who prepare for it..."



Global challenges



Disease	Prevalence
Asthma	300 million
COPD	210 million
Allergic rhinitis	400 million
Sleep apnea	>100 million
Others	>50 million

Everyone in the world is exposed to CRD risk factors often common with other NCDs

Co-morbidities

- paramount importance
- often common with other NCDs

Global Alliance against Chronic Respiratory Diseases www.who.int/respiratory/gard

european respiratory society every breath counts



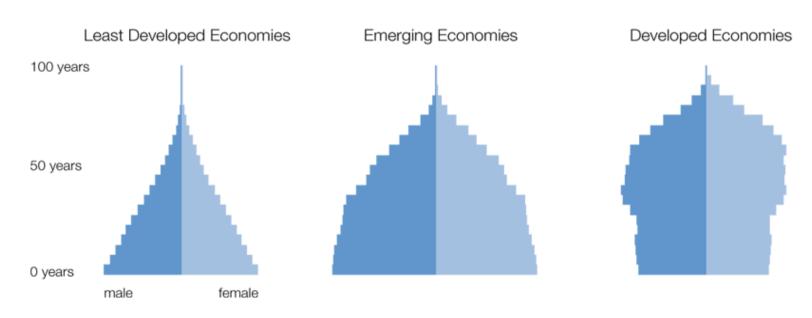
COPD – Europe's unknown killer

- Estimated 300,000 deaths in Europe are from COPD each year.
- 30 billion euros are wasted in lost productivity and indirect costs.
- COPD is strongly associated with health inequalities within and between countries in Europe.
- This preventable lung disease is on the rise and is expected to be the third leading cause of death globally by 2030.

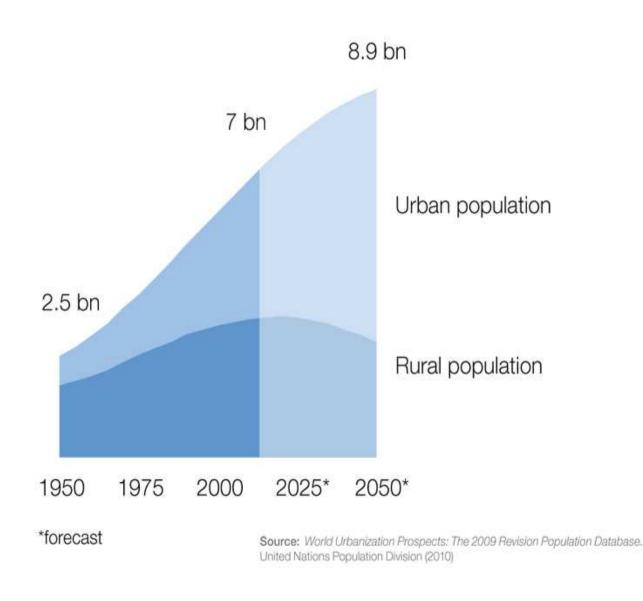
- Ageing population, increased chronic diseases & more urbanised world will likely increase health inequalities.
- Globally, population of older people is growing at a rate of 2.6% per year, considerably faster than the population as a whole.
- By 2050, the world will experience a near doubling of the urban population to 6.2 billion – 70% of the projected world population of 8.9 billion.

Population Imbalances in 2025

Population pyramids showing the percentage of the population using 4-year age intervals



A More Populated and Urban World







Risk factors in adulthood for developing COPD

- Cigarette-smoking
- Occupational exposures (dust etc)
- Exposures to biomass smoke
- Respiratory infections



european respiratory society every breath counts



Origins of COPD?

- Cigarette-smoking remains the primary risk factor...
 - but not all smokers have the same risk of developing COPD and its complications.
 - and there is a wide variety of lung function in adults not related to smoking.
- Can this be explained by factors determined early in life?



Newborn lung function & maternal smoking

A study in more than 13,000 people showed that **childhood disadvantage** defined by:

- either maternal or paternal asthma,
- childhood asthma,
- maternal smoking and
- childhood respiratory infections

predicts worse adult lung function, a faster rate of lung function decline, and a greater prevalence of COPD.



Ref: Svanes C, Sunyer J, Plana E, et al. **Early life origins of chronic obstructive pulmonary disease.** Thorax 2009;65:14–20.



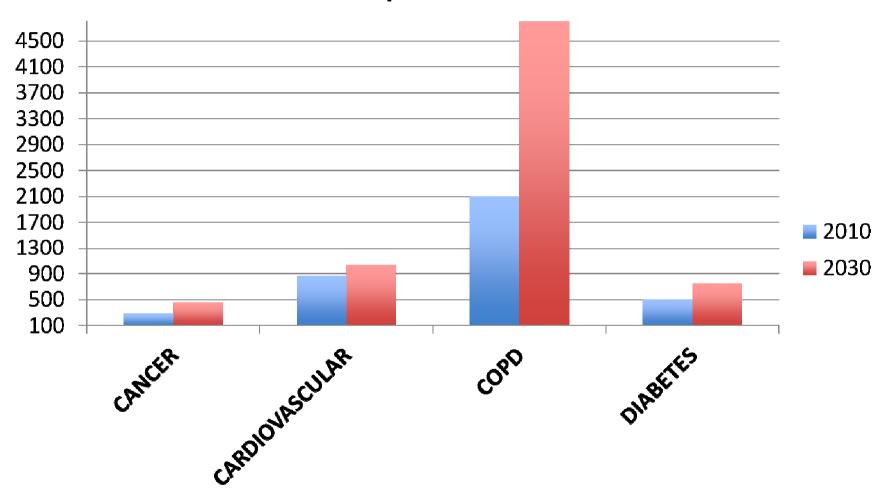
Avoidable health inequalities and respiratory disease

- Social inequality causes a greater proportion of deaths from respiratory disease than from any other disorder.
- The lowest social groups are up to 14 times more likely to have respiratory diseases than are the highest.

Recommmendation:

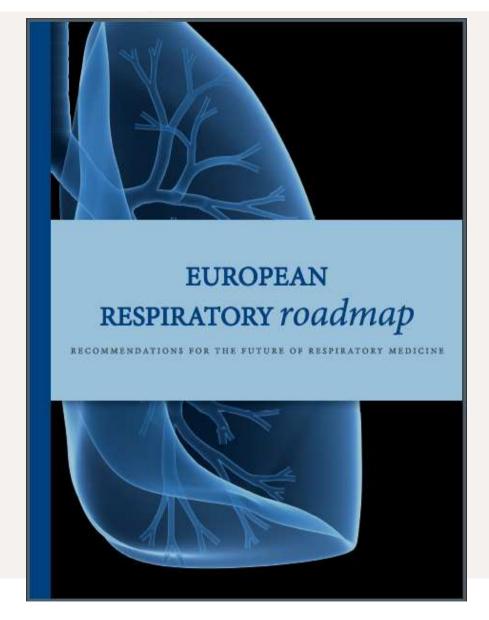
Lung health interventions clearly need to be specifically targeted at individuals in the most deprived communities, in particular vulnerable groups such as children

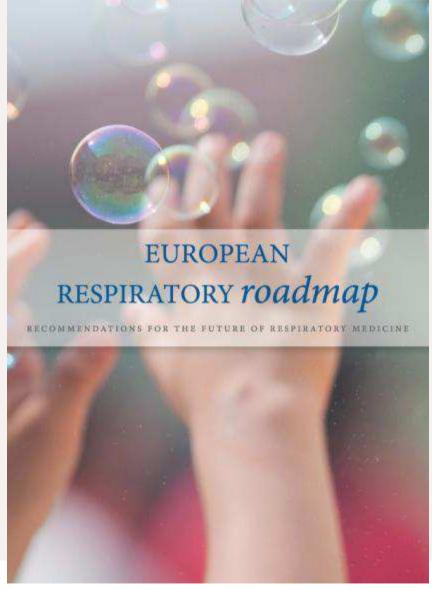
Cost-of-illness approach: estimates of direct and indirect costs of ill health US\$ BILLIONS



Bloom, D.E., et al.. (2011). The Global Economic Burden of Non-communicable Diseases. Geneva: World Economic Forum. www.weforum.org/EconomicsOfNCD









PREVENTION

- Reduce inequalities between countries
- Reduce exposure of children to intra-uterine and secondhand smoke
- Reduce urban air polution
- Improve indoor air quality
- Manage consequences of natural events (volcano eruptions, tsunami's and floods, and climate change)









RESEARCH

At the verge of formidable breakthroughs

- Boosting host defense and innate immunity
- Personalised care for lung cancer
- Innovative approaches for restoring pulmonary function¹
- Better translation of research findings into clinical practice²

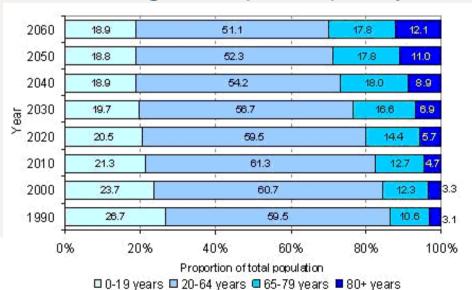
Only 9 new molecules in the last 40 years

- Public-private partnerships (IMI)³
- Collaboration Industry-Innovative Academic centers
- 1. Time magazine, December 2010. Best innovations of 2010.
- 2. Macklem PT. Am J Respir Crit Care Med 2004; 169: 438-439.
- 3. Kamel N et al. Eur Respir J 2008; 31: 924-926.



CLINICAL MEDICINE

- Costs of health care 10.5 % GDP in the EU
- Forecasted to be 16% by 2020
- Shortage of health care workers of 1,000,000, leaving up to 15% of care uncovered, by 2020
- Quality effective by avoiding catastrophic events resulting from poor quality



Division of European Union population by age group. European Commission. Demography Report, Report 2010



EDUCATION

- Improving standards by harmonisation (HERMES)
- Innovative modalities such as e-learning and skills labs
- Physician and patient mobility
 - by 2015, 11.2% of retired UK population abroad¹





1. La Parra et al. Ageing Soc 2008; 28: 85-102.





LISTENING TO, INVOLVING AND ENGAGING PATIENTS IN THE LIFE OF ERS



- •Identifying patient organisations in Europe
- Patient Advisory Committee
- Developing patient pool to input into ERS
- Patient village at ERS Congress
- Patient-orientated symposia at ERS Congress
- Patient input into ERS guidelines

RESEARCH NEEDS

- Substantial needs for EU funding with regard biomedical research for COPD. Programme - Horizon 2020
- Dedicated infrastructure for health and biomedical research at EUlevel e.g. EU Institutes of Health
- Promote translational and clinical research at European level.
- New drugs with new mechanisms of action improve collaboration between industry, scientist, Scientific societies....





Focusing on prevention



United to reverse the rise in chronic disease

european chronic disease alliance









European Society of Hypertension









HOME

NEWS

POLICY PAPERS

MEMBERS

JOIN US

CONTACT US

ECDA was granted the European Health Award at the 13th European Health Forum Gastein, 6-9 October 2010



Our Mission

To reverse the alarming rise in chronic disease by providing policy recommendations based on current evidence. Our recommendations address in particular the four major risk factors – tobacco use, poor nutrition, physical inactivity and alcohol consumption.

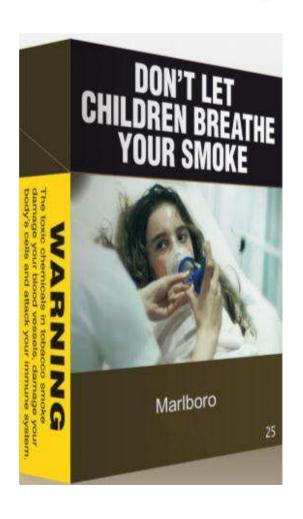
Our Objectives

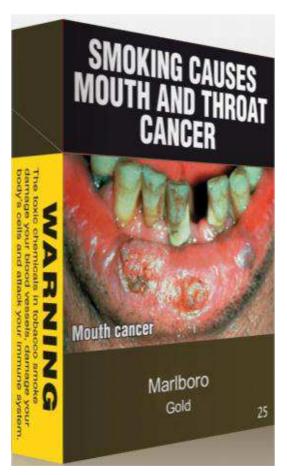
- · Provide policy recommendations based on current evidence
- · Raise awareness and advocate by engaging with policy-makers
- Promote the development and implementation of a EU Strategy for Chronic Disease
- · Develop and publish position/policy papers

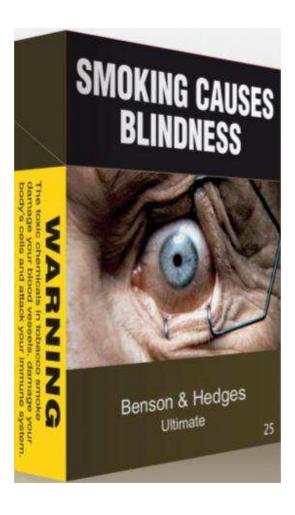
Priorities

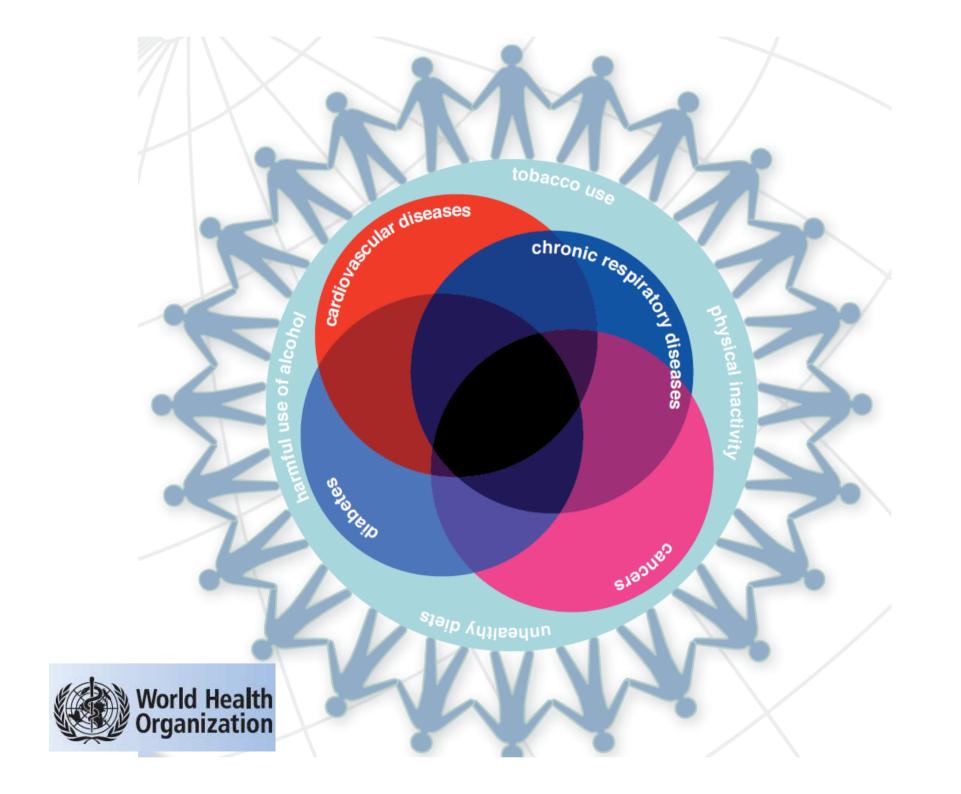
- Primary and secondary prevention related to chronic non-communicable diseases
- Common risk factors tobacco use, poor nutrition, physical inactivity and alcohol consumption.

Plain Packaging – an effective prevention tool to discourage young people to start smoking











2011 High Level Meeting on Prevention and Control of Non-communicable Diseases

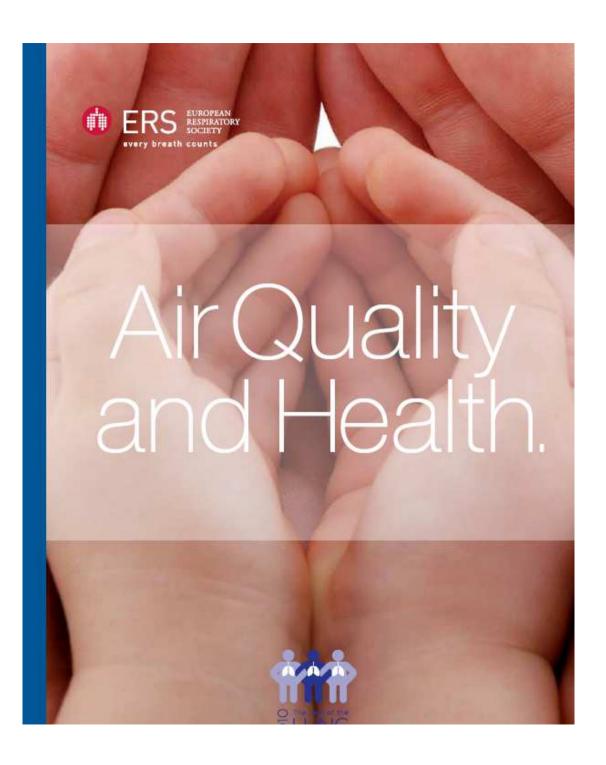


General Assembly | United Nations | New York | 19-20 September 2011

- Focus on 4 major NCDs: cardiovascular, respiratory, cancer & diabetes
- Implementing the "Political Declaration" adopted at the UN HLM on NCDs (19-20 Sep)



We all have a unique opportunity to take action on chronic respiratory disease and we need to raise maximum awareness.





STRENGTHENING ENVIRONMENTAL POLICY ACTIVITIES

Eur Respir J 2012; 39: 525–528 DOI: 10.1185/09031936.00001112 Copyright@ERS 2012



EDITORIAL

Ten principles for clean air

B. Brunekreef*, I. Annesi-Maesano, J.G. Ayres, F. Forastiere, B. Forsberg**, N. Künzli, J. Pekkanen, and T. Sigsgaard,

he European "Year of the Air" 2013 will be upon us soon: over the next several months, the European Union (EU) will revise its main air pollution control policies. Lack of clean air is one of the most important environmental threats to public health in Europe today. The European Respiratory Society Environment and Health Committee (www.ersnet.org) has developed 10 concise principles for clean air, which summarise the scientific state of the art and provide guidance for public health policy. This editorial was written in order to explain these 10 principles.

The EU target value for ozone is 120 µg·m⁻³ as a maximum 8-h average value, not to be exceeded on more than 25 days a year. The WHO air quality guideline is 100 µg·m⁻³, and even at this level WHO estimates a 1-2% increase in daily mortality compared to a baseline of 70 µg·m⁻³.

Compliance alone with current EU legislation for particulate matter and ozone, in short, does not adequately protect public health.

2) Outdoor air pollution is one of the biggest environmental health

2013 Revision of legislation





GREATER INEQUALITY IN WEALTH MEANS GREATER INEQUALITY IN HEALTH...

•There's a strong correlation between a country's level of economic inequality & its social outcomes.

(R. G. Wlikinson & K. E. Pickett: "The Spirit Level" 2009)

•There is a social gradient in health – the lower a person's social position, the worse his or her health.

(Marmot review)



INEQUALITIES IN EUROPE

- Are significant
- Are costly inequalities related losses in the EU are estimated at €1 trillion or 9.5% of GDP

Health professionals can make a difference through:

- Leadership
- Sharing best practice
- Health promotion and prevention of disease

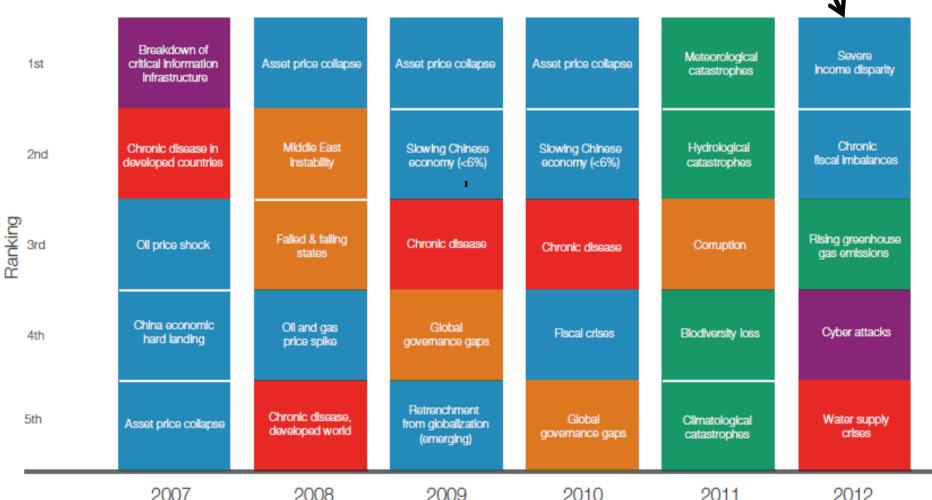


Technological

Severe Income Disparity No 1

Risk

Top 5 Global Risks in Terms of Likelihood



Age of Austerity

- •There is a sense of receding hope for future prospects.
- •The poorest half of the global population owns barely 1% of the global wealth, while the world's top 1% owns close to half of the world's assets

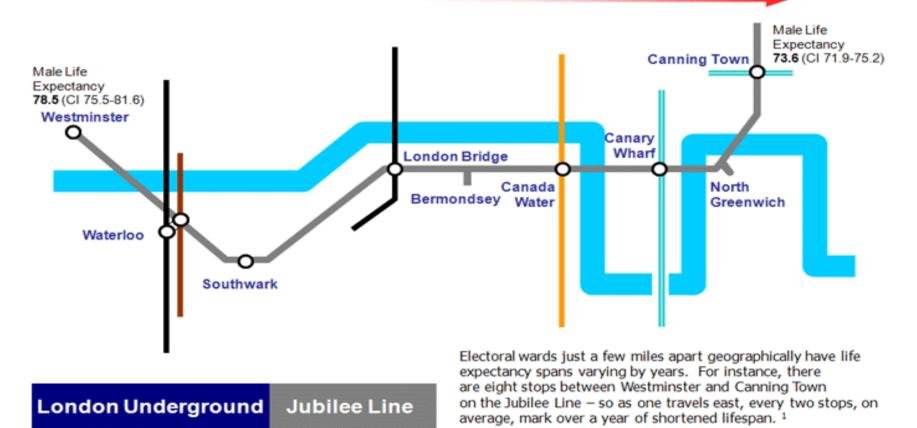




HEALTH INEQUALITY IN THE UK

Differences in Male Life Expectancy within a small area in London

Travelling east from Westminster, every two tube stops represent over one year of life expectancy lost -Data revised to 2004-08



¹ Source: Analysis by London Health Observatory of ONS and GLA data for 2004-08. Diagram produced by Department of Health

The global TB situation



Estimated number of cases, 2010

Estimated number of deaths, 2010

1.1 million*

All forms of TB

8.8 million

(8.5–9.2 million)

(0.9–1.2 million)

HIV-associated TB

1.1 million

(1.0-1.2 million)

350,000

(320,000-390,000)

Multidrugresistant TB ~ 650,000

out of 12 million (11-14 million) prevalent TB cases

* Excluding deaths attributed to HIV/TB

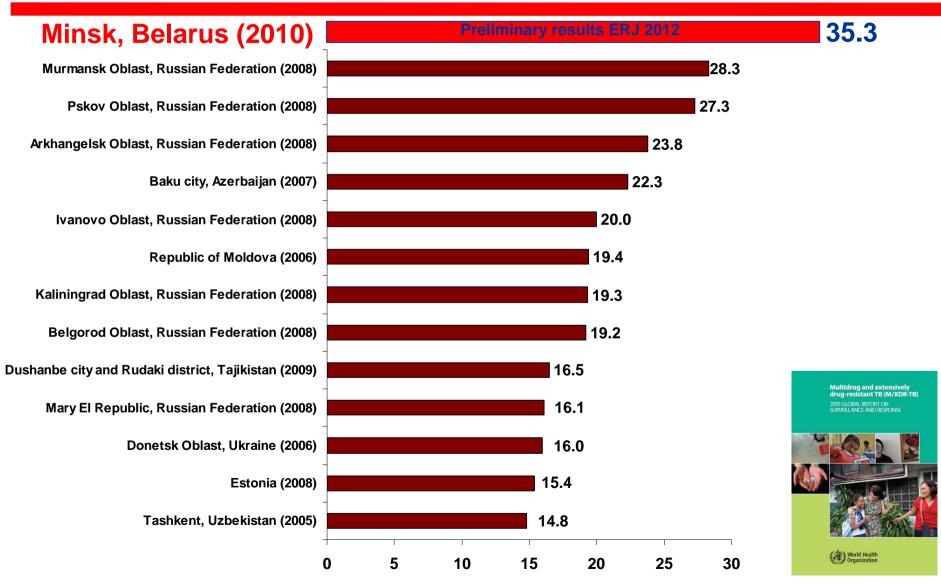
Source: WHO Global Tuberculosis Control Report 2011 (www.who.int/tb/publications/global_report/2011/gtbr11_full.pdf)





13 top settings with highest % of MDR-TB among new cases, 2001-2010







OPPORTUNITIES FOR RESEARCH



Amendment 152
Proposal for a regulation
Annex I – Part III – point 1 – point 1.1 – paragraph 4

Text proposed by the Commission

Chronic conditions such as cardiovascular disease (CVD), cancer, diabetes, neurological and mental health disorders, overweight and obesity and various functional limitations are major causes of disability, ill-health and premature death, and present considerable social and economic costs.

Amendment

Chronic conditions such as cardiovascular disease (CVD), cancer, diabetes, *respiratory diseases*, neurological and mental health disorders, overweight and obesity and various functional limitations are major causes of disability, ill-health and premature death, and present considerable social and economic costs.



ERS PRESIDENTIAL SUMMIT,

7-8 JUNE, 2013 DUBLIN, IRELAND

RESEARCH GAPS, PATIENT NEEDS AND INNOVATIVE SOLUTIONS: A FORWARD LOOK ON LUNG HEALTH RESEARCH





13:00-13:15	Opening and welcome
	Francesco Blasi, ERS President (Milan, Italy)
13:15-13:30	Key note address
	Minister for Health or Research, Ireland
13:30-14:45	Policies for lung health and research: can they make a difference?
	Chaired by Francesco Blasi (Milan, Italy)
13:30-13:45	WHO actions to promote lung health
	Hans Kluge WHO Europe (Geneva, Switzerland)
13:45-14:00	Strategic research priority setting for health in Horizon 2020
	Elmar Nimmesgern, Unit Horizontal Aspects of Health, European Commission
	(Brussels, Belgium)
14:00–14:15	The Lithuanian example: a national strategy for respiratory health tbc
14:15-14:45	Discussion
14:45-15:45	Lung Health: understanding risk factors
	Chaired by Peter Barnes (London, United Kingdom)
14:45-15:00	Tobacco & the global attack on lung health
	William MacNee (Edinburgh, United Kingdom)
15:00-15:15	From home to the work place: the impact of air quality
	Nino Künzli (Basel, Switzerland)
15:15–15:30	The rising epidemic of social inequalities in Europe
	Isabella Annesi-Maesano (Paris, France)
15:30-15:45	Discussion



16:15-18:30	Gaps and needs: defining patient-focused research
	Chaired by Laurent P. Nicod (Lausanne, Switzerland)
16:15–16:25	Meeting the challenge of AMR and respiratory infections
16:25-16:35	T. Welte (Hanover, Germany) Personalised medicine: a step forward to better care?
16:35-16:45	S. Holgate (Southampton, United Kingdom) Comorbidities and the ageing lung
70.00 (0.00	J. Vestbo (Odense, Denmark)
16:45-16:55	Mainstreaming research for rare diseases J-P. Sculier (Brussels, Belgium)
Followed by a panel necessary.	discussion to identify concrete areas/topics where collaboration at EU-level is
Panel participants:	P.J. Barnes (London, United Kingdom), S. Holgate (Southampton, United Kingdom), K.F. Rabe (Großhansdorf, Germany), T. Welte (Hanover, Germany), J.P. Sculier (Brussels, Belgium), J. Vestbo (Odense, Denmark), B. Flood (Dublin Ireland)



Day 2

08:00-09:00	Needs and perceptions: understanding the patient
	Chaired by Edward McKone, Irish Thoracic Society (Dublin, Ireland)
08:00-08:15	Key role of patients in clinical trials
	tbc
08:45-09:00	The challenge of adherence to treatment in chronic diseases
	G. Canonica (Genoa, Italy)
09:00-09:15	Living with a rare disease: patient's view
	Iris Bassi LAM Italia tbc
09:15-09:30	Discussion
00-20 10-15	T1
09:30-10:15	Towards a new perspective on industry partnerships?
09:30-09:45	Chaired by Klaus Rabe (Grosshandorf, Germany)
09.30-09.43	Pharma view on public private partnerships Giuseppe Recchia, GSK (Verona, Italy)
09:45-10:00	An Innovative Medicines Initiative (IMI) for life sciences?
05.45 10.00	Elmar Nimmesgern, Unit Horizontal Aspects of Health, European Commission
	(Brussels, Belgium)
10:00-10:15	Discussion
10:15-10:45	Coffee break
10:45-11:00	Instructions for break-out sessions
11:00-12:00	Break-out sessions on top priorities for collaborative research
Session 1 leader:	Peter J. Barnes (London, United Kingdom)
Session 2 leader:	Klaus F. Rabe (Grosshandorf, Germany)
Session 3 leader:	Stephen T. Holgate (London, United Kingdom)

Outcomes should define top priorities for international/European research that will deliver innovations, meet patient needs, and address urgent research gaps: through the formulation of potential research topics for Horizon 2020.



EUROPEAN LUNG white book



european respiratory society awary breath counts



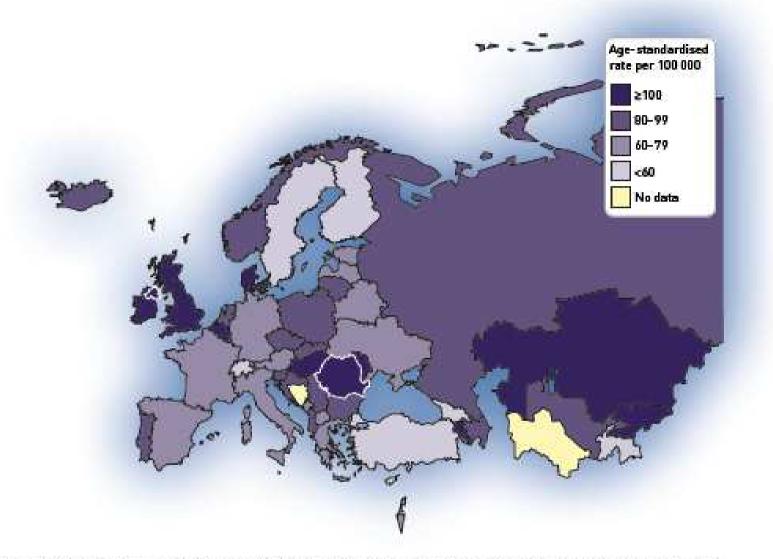


Figure 1 – Map of age-standardised mortality rates for all respiratory conditions. Source: World Health Organization World and Europe Detailed Mortality Databases, November 2011 update.



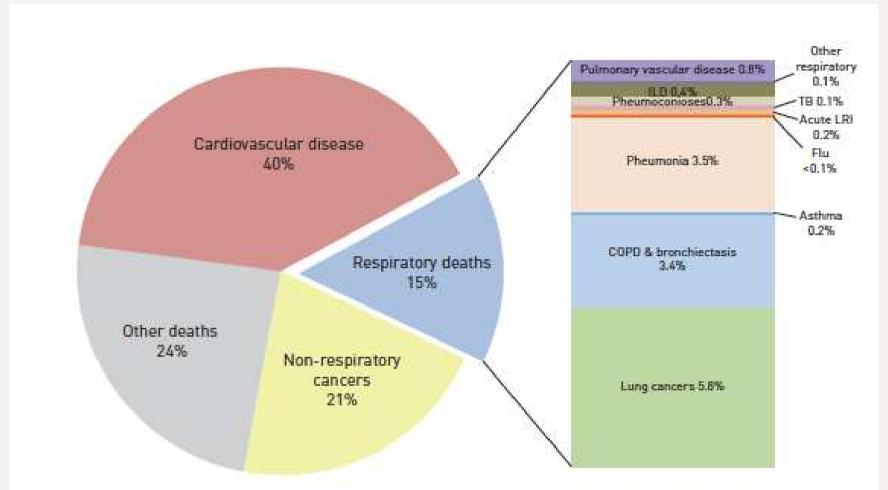
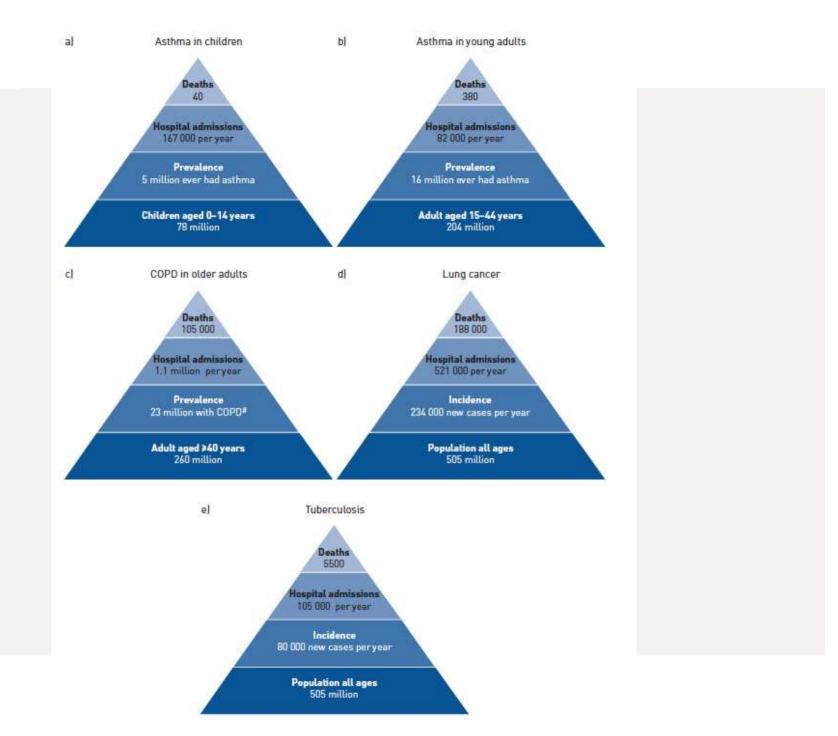


Figure 3 - Percentage of deaths in selected European Union countries, by respiratory condition. The countries represented are those for which full ICD-10 coding of diagnoses was available for both hospital admissions and deaths (Austria, Croatia, Cyprus, Czech Republic, Denmark, Finland, Latvia, Lithuania, Luxembourg, Malta, Poland, Slovenia, Slovakia, UK). Source: World Health Organization World and Europe Detailed Mortality Databases.







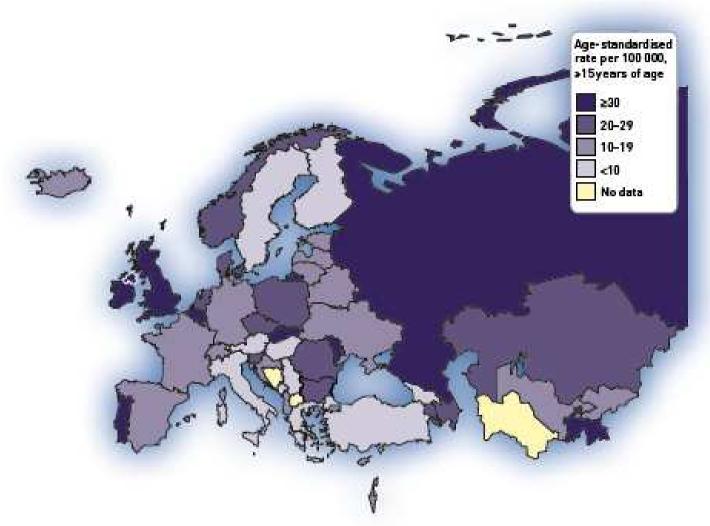


Figure 6 – Mortality rate for pneumonia in adults. Data from the World health Organization World and Europe Mortality Databases, November 2011 update.





EUROPEAN RESPIRATORY SOCIETY

ERS BARCELONA 2013

ANNUAL CONGRESS spain, 7–11 september

