

**75° CONGRESSO
NAZIONALE**



Potenziare la medicina generale per migliorare l'Active Ageing

1-6 ottobre 2018

Complesso Chia Laguna - Domus de Maria (CA)

Investire in prevenzione oggi per scongiurare la cronicità in futuro

Focus sulle cronicità respiratorie

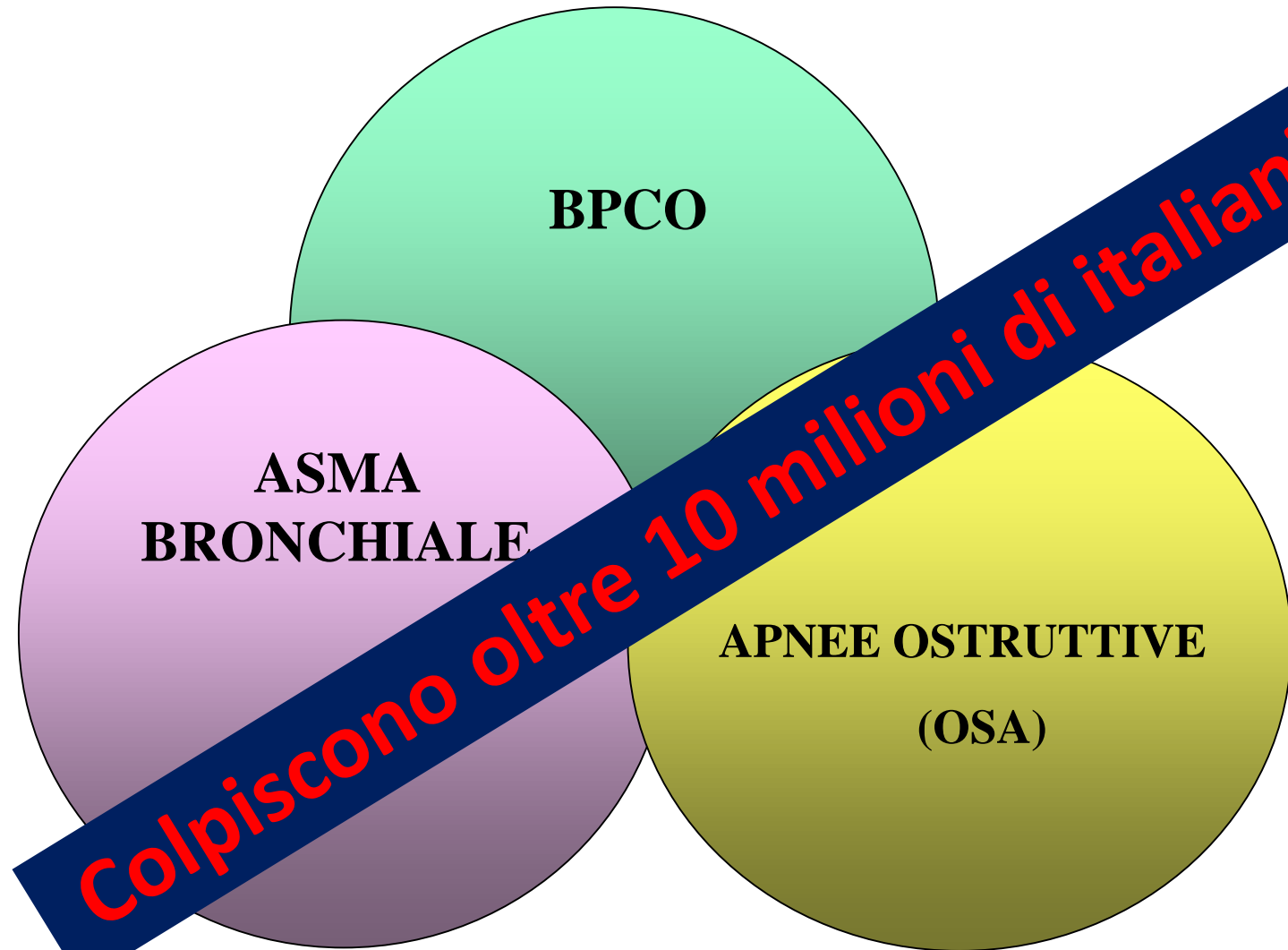
Fausto De Michele

Dir. U.O.C. di Pneumologia e Fisiopatologia Respiratoria

A.O.R.N. «A. Cardarelli» - Napoli

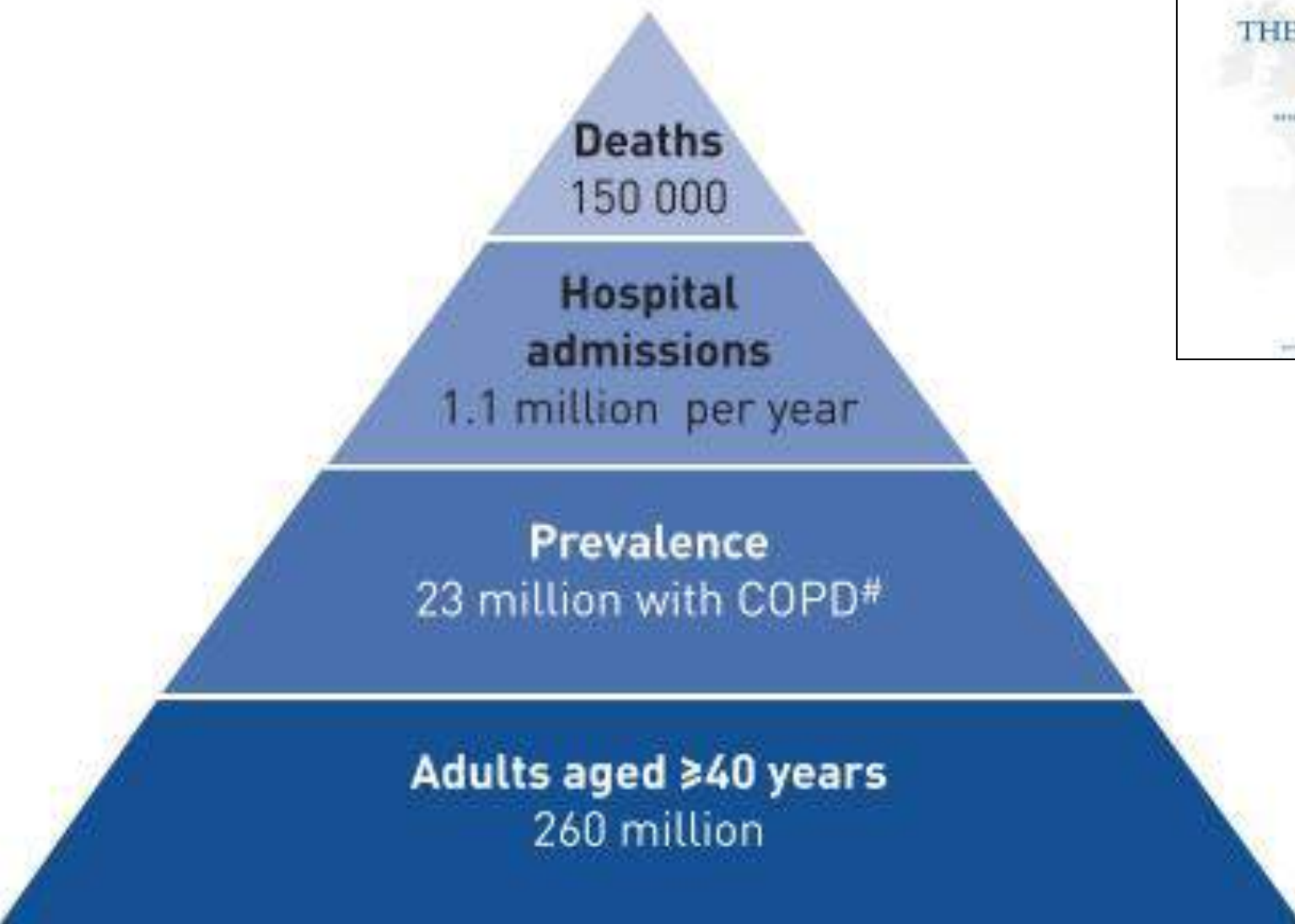
Past President Associazione Nazionale Pneumologi Ospedalieri

LE CRONICITA' RESPIRATORIE



c)

COPD in older adults



Measuring the Global Burden of Disease

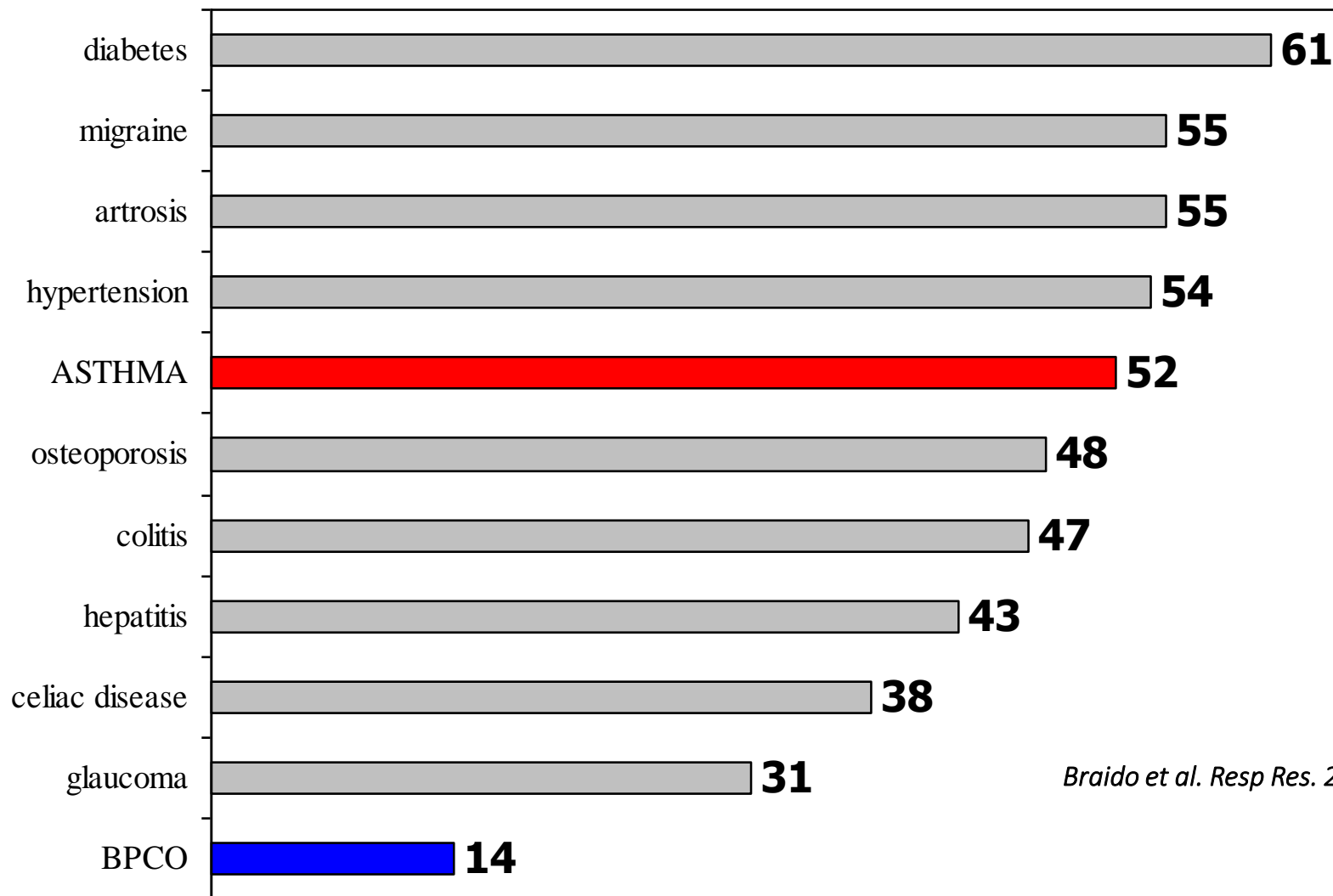
Christopher J.L. Murray, M.D., D.Phil., and Alan D. Lopez, Ph.D.

N Engl J Med 2013;369:448-57.

Table 1. Top 10 Causes of Death, Years of Life Lost from Premature Death, Years Lived with Disability, and Disability-Adjusted Life-Years (DALYs) in the United States, 2010.

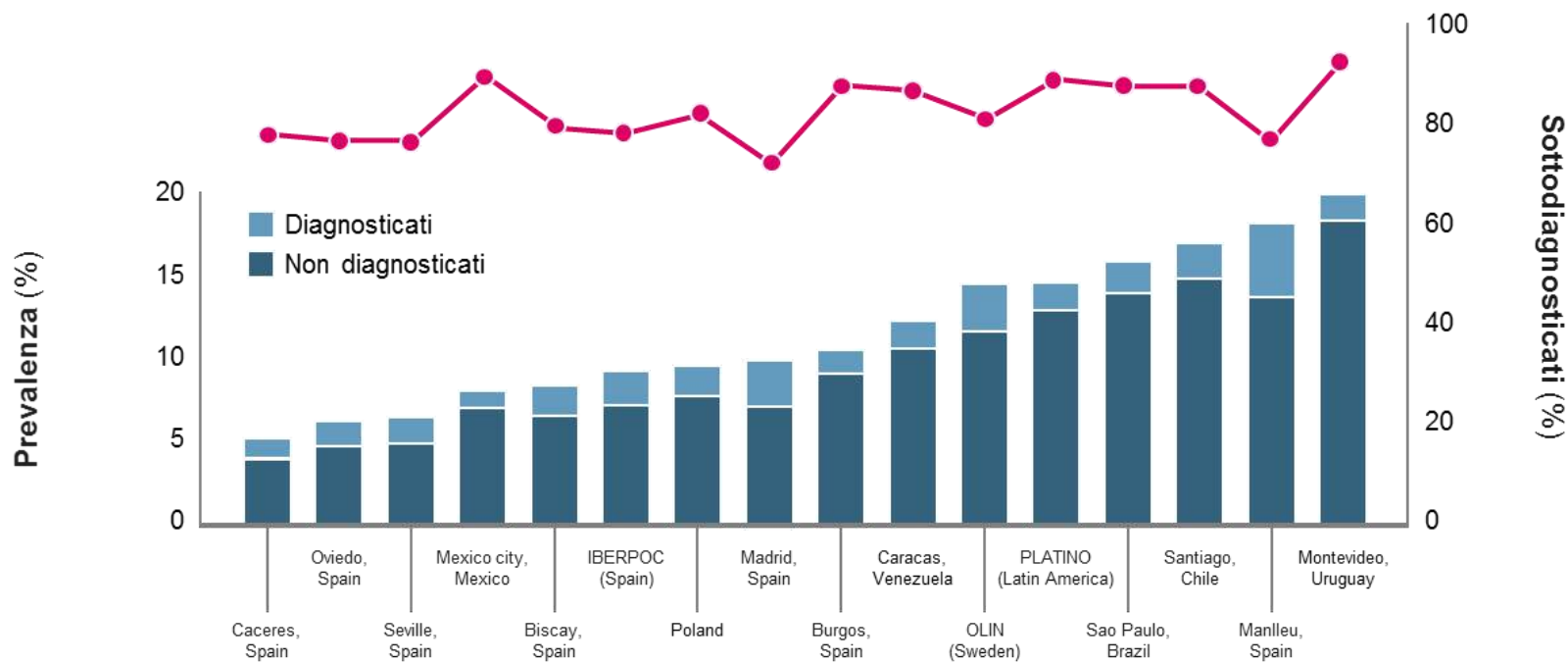
Cause of Death	Deaths (N = 2664)		Years of Life Lost (N = 45,145)		Years Lived with Disability (N = 36,689)		DALYs (N = 81,835)	
	Rank	No. (%)	Rank	No. (%)	Rank	No. (%)	Rank	No. (%)
	<i>in thousands</i>		<i>in thousands</i>		<i>in thousands</i>		<i>in thousands</i>	
Ischemic heart disease	1	563 (21.1)	1	7165 (15.9)	16	685 (1.9)	1	7850 (9.6)
Chronic obstructive pulmonary disease	5	154 (5.8)	4	1913 (4.2)	6	1745 (4.8)	2	3659 (4.5)
Low back pain	—	—	—	—	1	3181 (8.7)	3	3181 (3.9)
Cancer of the trachea, bronchus, or lung	3	163 (6.1)	2	2988 (6.6)	73	45 (0.1)	4	3033 (3.7)
Major depressive disorder	—	—	—	—	2	3049 (8.3)	5	3049 (3.7)
Other musculoskeletal disorders	36	14 (0.5)	37	254 (0.6)	3	2603 (7.1)	6	2857 (3.5)
Stroke	2	172 (6.5)	3	1945 (4.3)	17	629 (1.7)	7	2574 (3.1)
Diabetes mellitus	6	86 (3.2)	7	1392 (3.1)	8	1165 (3.2)	8	2557 (3.1)
Road-traffic injury	12	44 (1.7)	5	1873 (4.1)	26	373 (1.0)	9	2246 (2.7)

CONSAPEVOLEZZA NELLE MALATTIE RESPIRATORIE



Braido et al. Resp Res. 2013

La sottodiagnosi è confermata negli studi di popolazione



Negli studi di popolazione in cui è stata eseguita una spirometria con test di broncodilatazione si conferma che la sottodiagnosi di BPCO è molto elevata, indipendentemente dalla prevalenza complessiva, variando dal 73% in Spagna sino al 93% in Uruguay

Opportunities to diagnose chronic obstructive pulmonary disease in routine care in the UK: a retrospective study of a clinical cohort

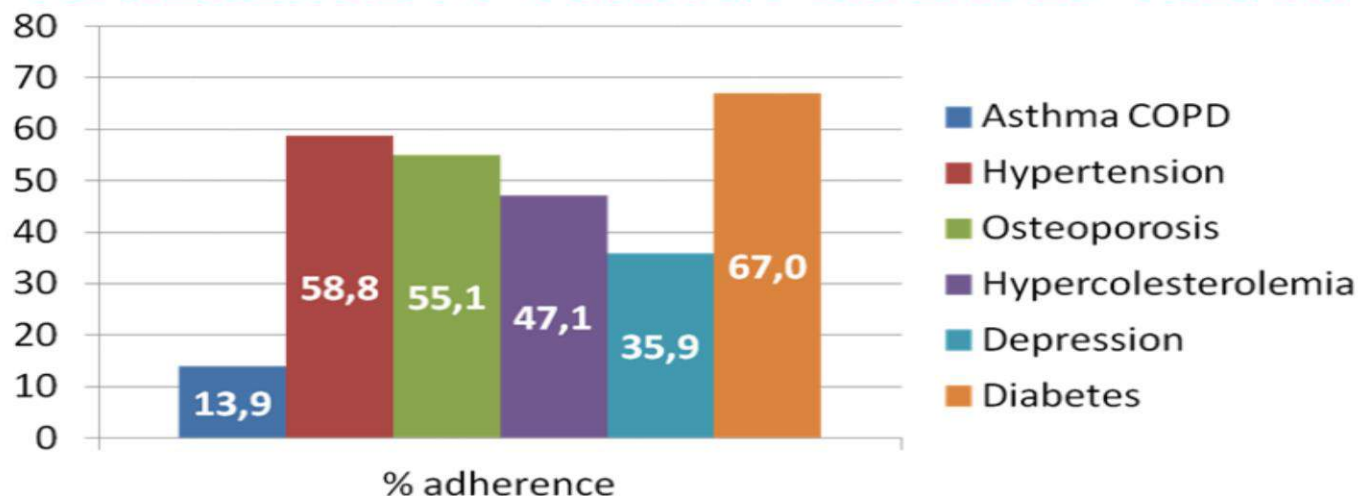
Lancet Respir Med 2014

Rupert CM Jones, David Price, Dermot Ryan, Erika J Sims, Julie von Ziegenweidt, Laurence Mascarenhas, Anne Burden, David M G Halpin, Robert Winter, Sue Hill, Matt Kearney, Kevin Holton, Anne Moger, Daryl Freeman, Alison Chisholm, Eric D Bateman, on behalf of The Respiratory Effectiveness Group*

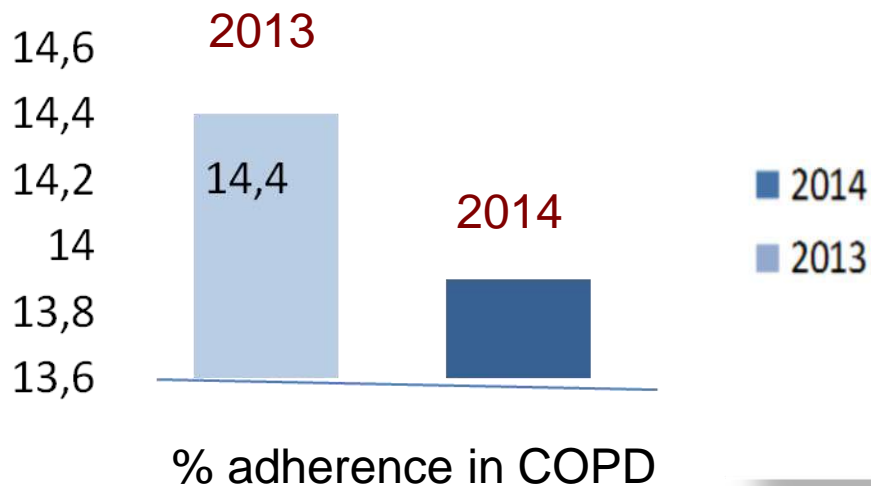
	Total (n=38 859)	Patients with data for FEV ₁ (n=22 821)*	Patients with no FEV ₁ data available (16 038)	p value
Age at diagnosis (years)				<0.0001†
Mean (SD)	67.5 (10.4)	66.3 (10.0)	69.1 (10.7)	
Median (IQR)	68 (60–75)	66 (59–74)	70 (62–77)	
Range	41–104	41–102	41–104	
GOLD FEV₁ impairment band* (n, %)				NA
FEV ₁ data‡ available	22 821 (59%)	..	..
GOLD I (FEV ₁ ≥80%)	2882 (7%)	..	..
GOLD II (FEV ₁ 50–79%)	10 347 (27%)	..	..
GOLD III (FEV ₁ 30–49%)	5669 (15%)	..	..
GOLD IV (FEV ₁ <30%)	3923 (10%)	..	..
FEV ₁ data‡ unavailable	16 038 (41%)	..	..
Place of diagnosis (n, %)				<0.0001
Primary care	38 282 (99%)	22 617 (99%)	15 665 (98%)	
Secondary care (inpatient or outpatient)	577 (1%)	204 (1%)	373 (2%)	



ADHERENCE TO CHRONIC DISEASES THERAPY 2014



2



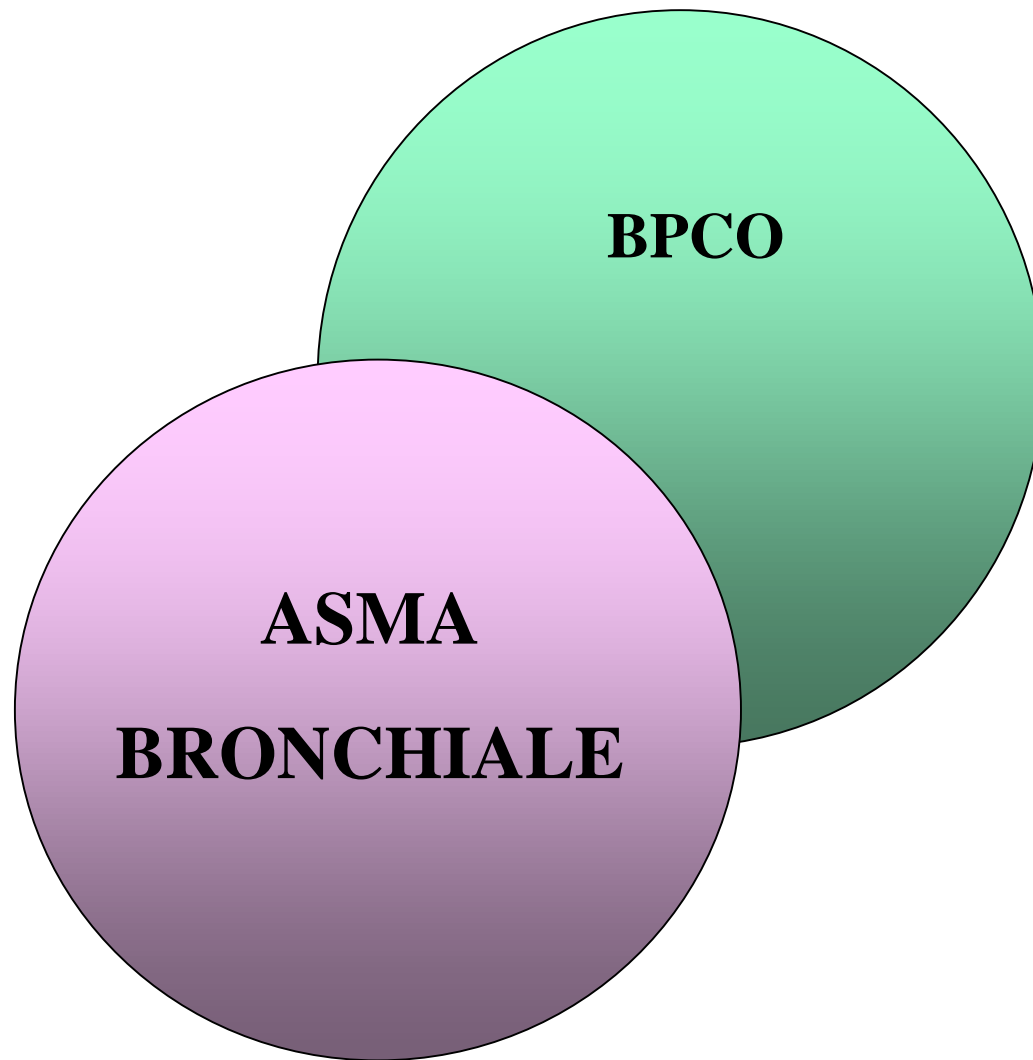
Source : AIFA – Italian Drug Agency
Osmed August 2015

european respiratory society every breath counts

In Italia abbiamo circa 60.000 pazienti in O2 terapia domiciliare a lungo termine, la gran parte sono pazienti con BPCO in fase avanzata



LE CRONICITA' RESPIRATORIE



Asthma affects 339 million people.*

*For explanation see Chapter 3 "How many people have asthma?"

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Suggested citation: The Global Asthma Report 2018. Auckland, New Zealand: Global Asthma Network, 2018

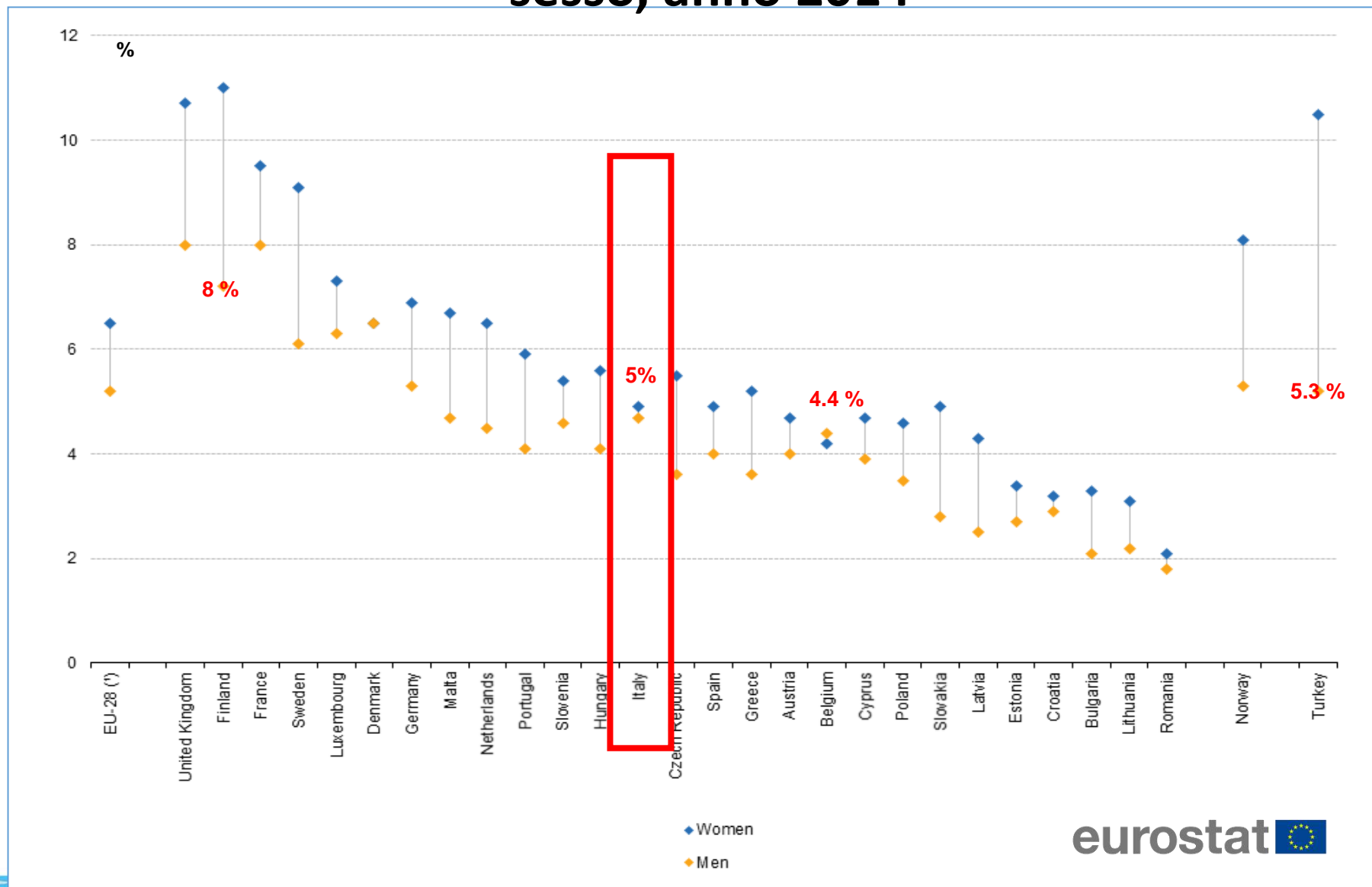
www.globalasthmanetwork.org



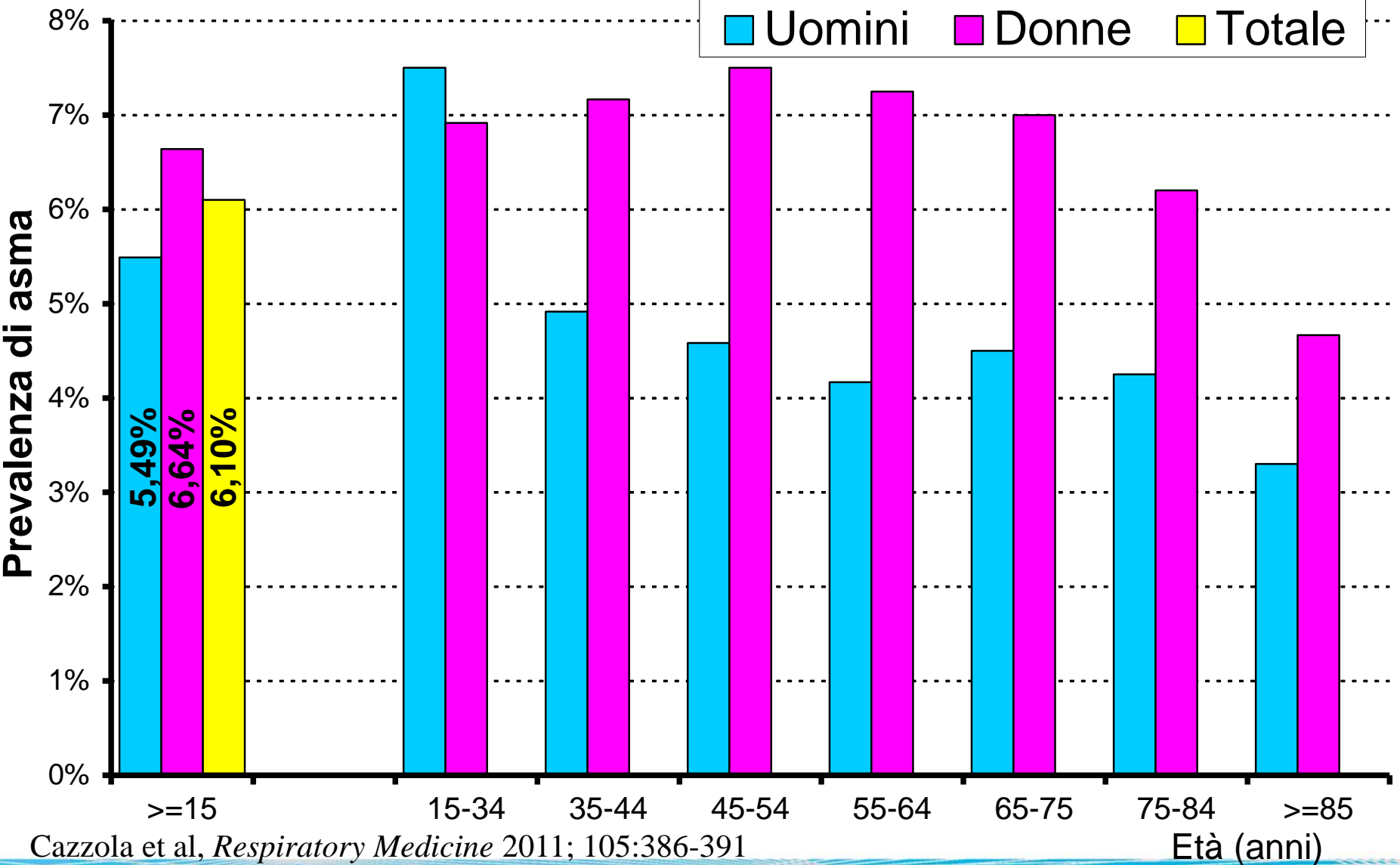
The Global Asthma Report 2018

- Mortalità mondiale: 180.000/anno (fonte OMS)
- È più frequente nei Paesi Industrializzati
- In Italia l'asma colpisce il 5% della popolazione.

Europa 27- Prevalenza di **Asma**, per tutte le età, per sesso, anno 2014



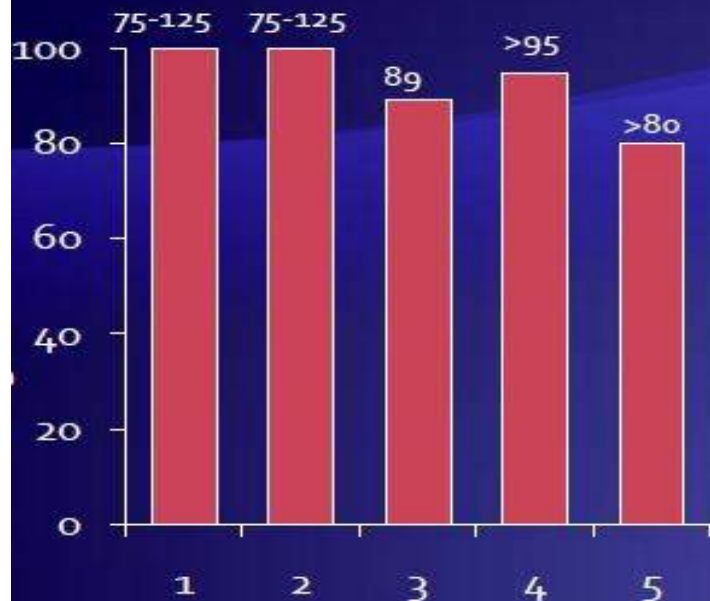
Prevalenza di asma in Italia in Medicina Generale 2009



Cazzola et al, *Respiratory Medicine* 2011; 105:386-391

Real-life adherence in observational studies vs. randomised trials

Randomised Trials



Real-world Trials



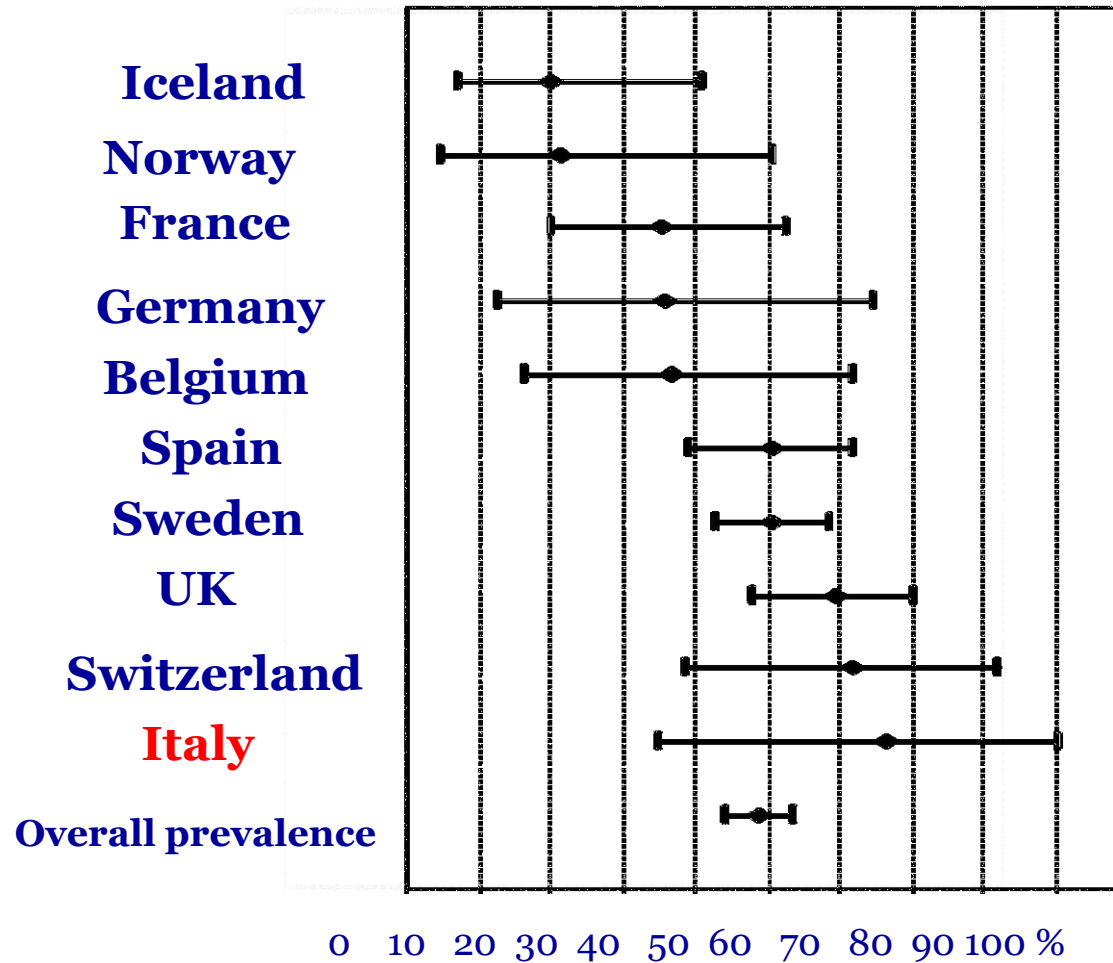
RCT References

- 1) Pawels R et al. *N Engl J Med* 1997
- 2) Kips J et al. *Am J Respir Crit Care* 2000
- 3) Bateman E. *Am J Respir Crit Care* 2004
- 4) Papi A et al. *Eur Respir J* 2007
- 5) Busse W et al. *J Allergy Clin Immunol* 2008

Real-world References

- 1) Partridge *Pulm Med* 2006
- 2) De Marco et al. *Int Arch Allergy Immunol* 2005
- 3 and 4) Janson et al. *Eur Respir J* 2001 3=Italy 4=UK
- 5 and 6) Breeckveldt-Postma et al. *Pharmaco-epidemiol Drug Saf* 2008 5=fixed combination 6=ICS
- 7) Stallberg et al. *Resp Med* 2003
- 8) Adams et al. *J Allergy Clin Immunol* 2002
- 9) Corrigan *Prim Care Resp J* 2011

Prevalenza dell'asma non controllato in Europa (ECRHS II; 1999-2002)



The Cost of Persistent Asthma in Europe: An International Population-Based Study in Adults

Simone Accordini^a Angelo G. Corsico^b Marco Braggion^a Margaret W. Gerbase^d
David Gislason^a Amund Gulsvik^f Joachim Heinrich^g Christer Janson^h Deborah Jarvisⁱ
Rain Jögi^j Isabelle Pin^{k,l,m} Yvonne Schoefer^g Massimiliano Bugiani^c Lucia Cazzoletti^a
Isa Cerveri^b Alessandro Marcon^a Roberto de Marco^a Therapy and Health Economics
Working Group of the European Community Respiratory Health Survey II

Int Arch Allergy Immunol 2013;160:93–101

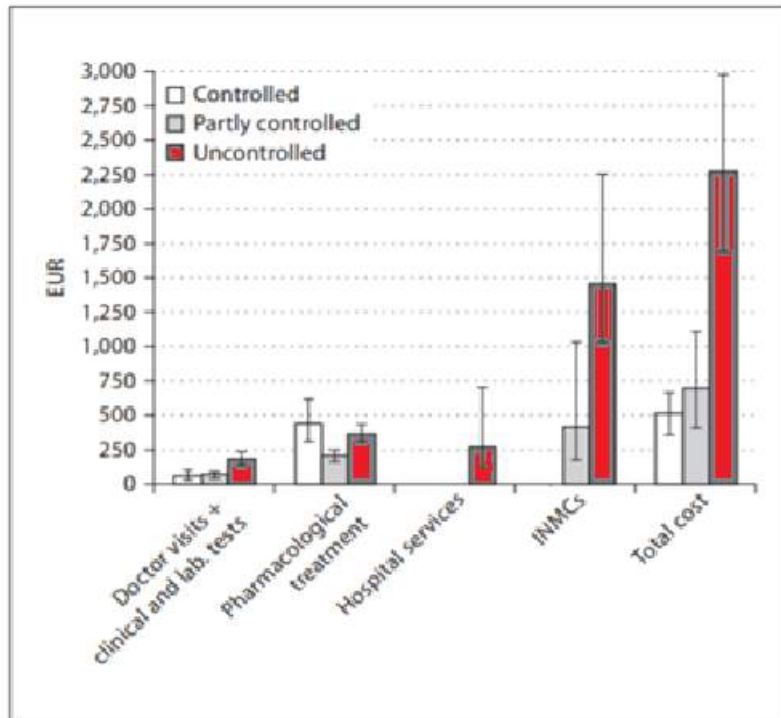
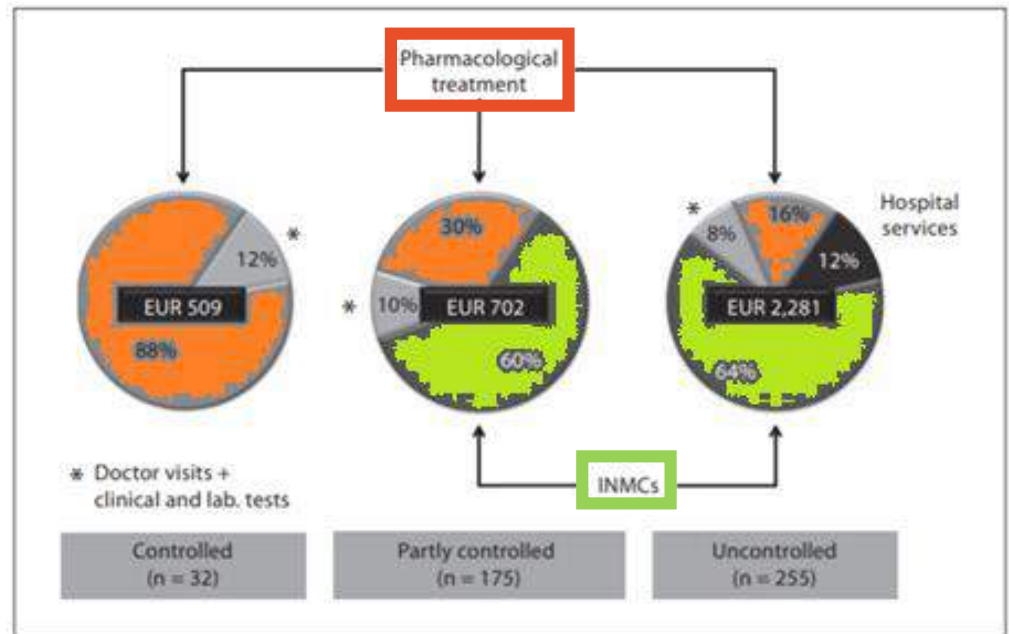


Fig. 1. Mean total cost per patient with persistent asthma (in the 2010 values) according to the degree of disease control. Bars represent 95% CIs.

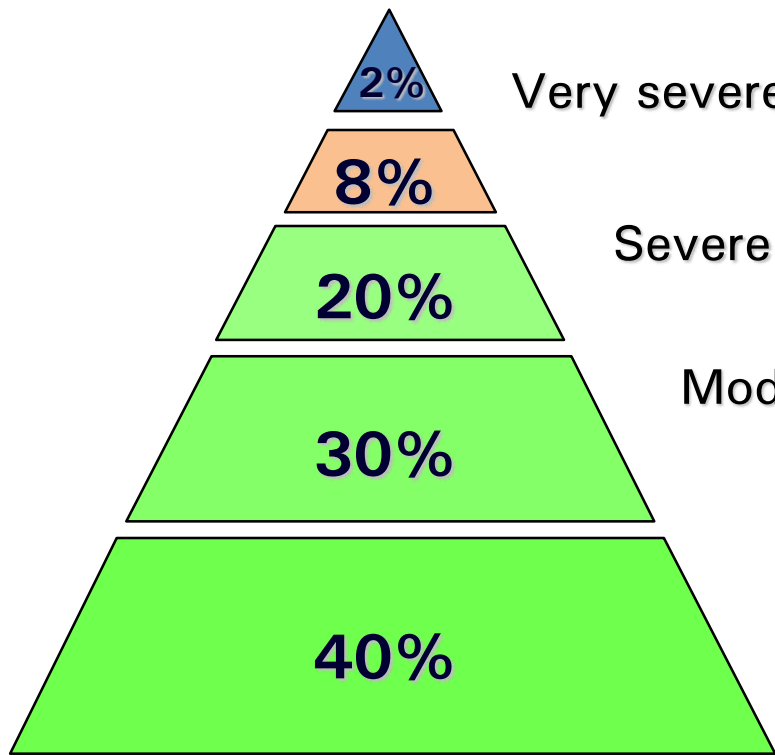


indirect nonmedical costs (INMCs)

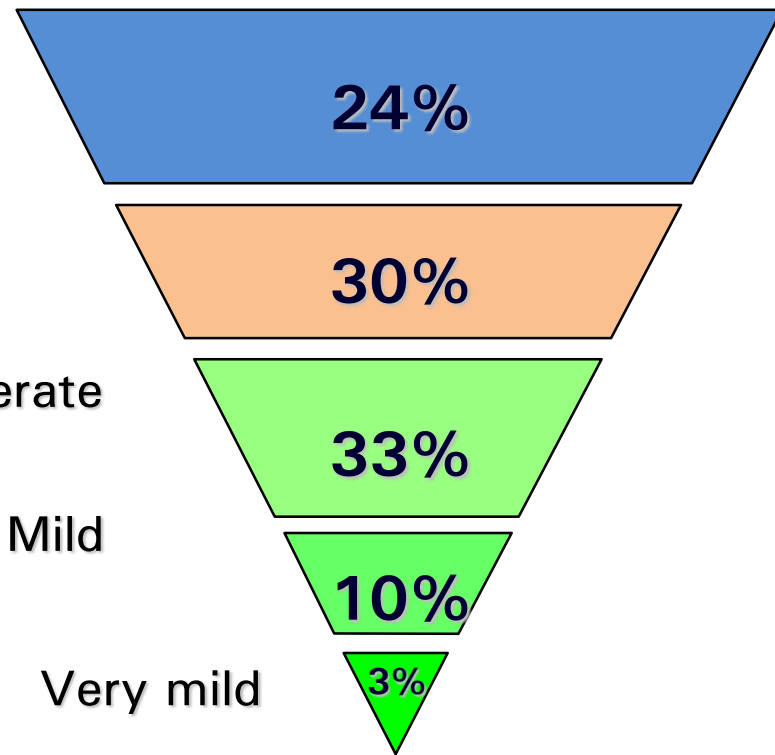
Fig. 2. Distribution of the cost components according to the degree of disease control. The mean total cost per patient with persistent asthma (in the 2010 values) is reported.

Boston Consulting Group 1995T

The subset of severe asthma patients has greater morbidity and a disproportionate need for health care support compared with less severe subsets



Proportion of patients



Proportion of total cost



Ministero della Salute

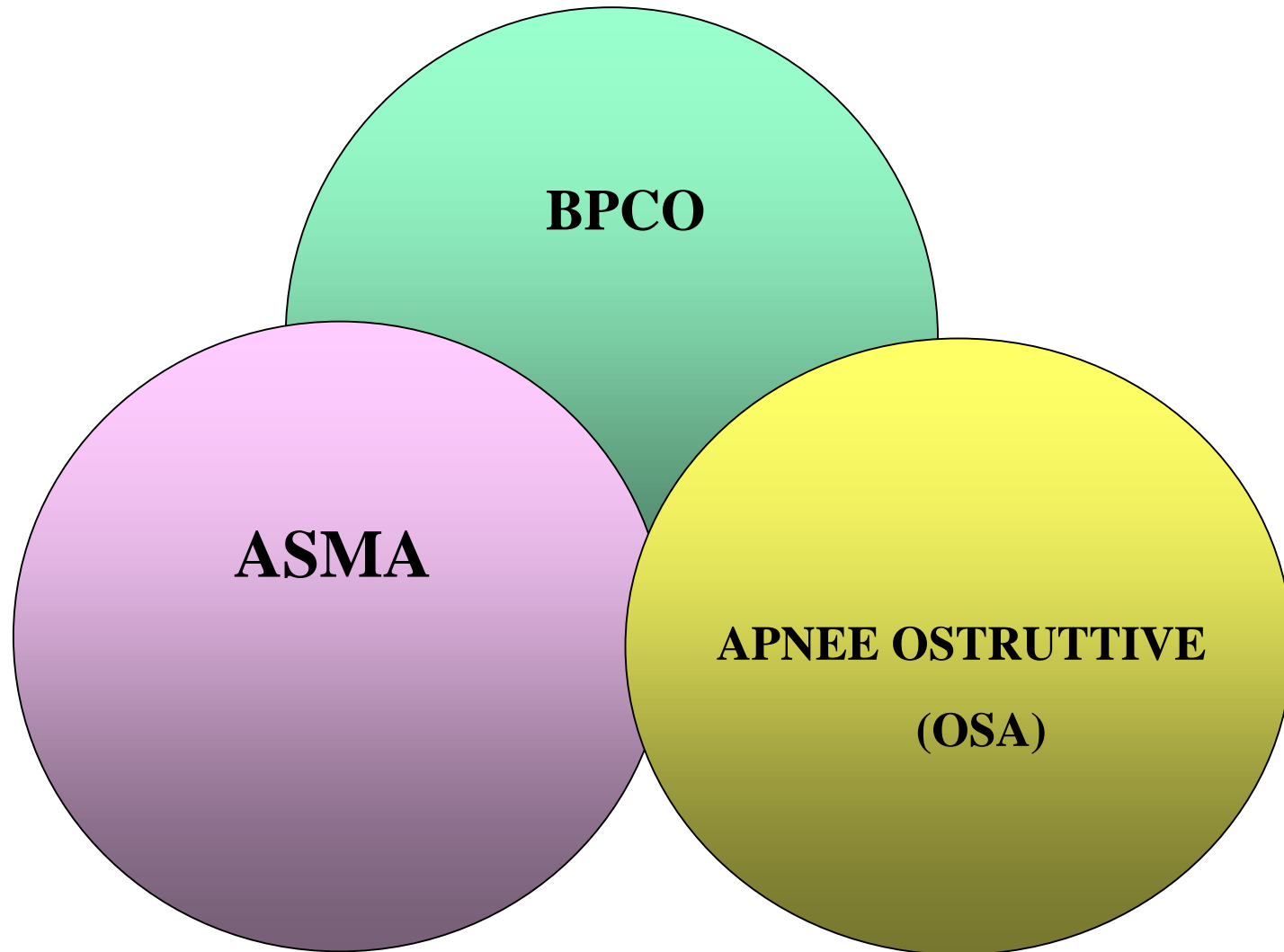
DIREZIONE GENERALE DELLA PROGRAMMAZIONE SANITARIA

Piano Nazionale della Cronicità

PARTE SECONDA

1. Malattie renali croniche e insufficienza renale
2. Artrite reumatoide e artriti croniche in età evolutiva
3. Rettocolite ulcerosa e malattia di Crohn
4. Insufficienza cardiaca cronica
5. Malattia di Parkinson e parkinsonismi
6. BPCO e insufficienza respiratoria cronica
7. Insufficienza respiratoria cronica in età evolutiva
8. Asma in età evolutiva
9. Malattie endocrine croniche in età evolutiva
10. Malattie renali croniche in età evolutiva

LE CRONICITA' RESPIRATORIE



OSA: patologia largamente sottodiagnosticata

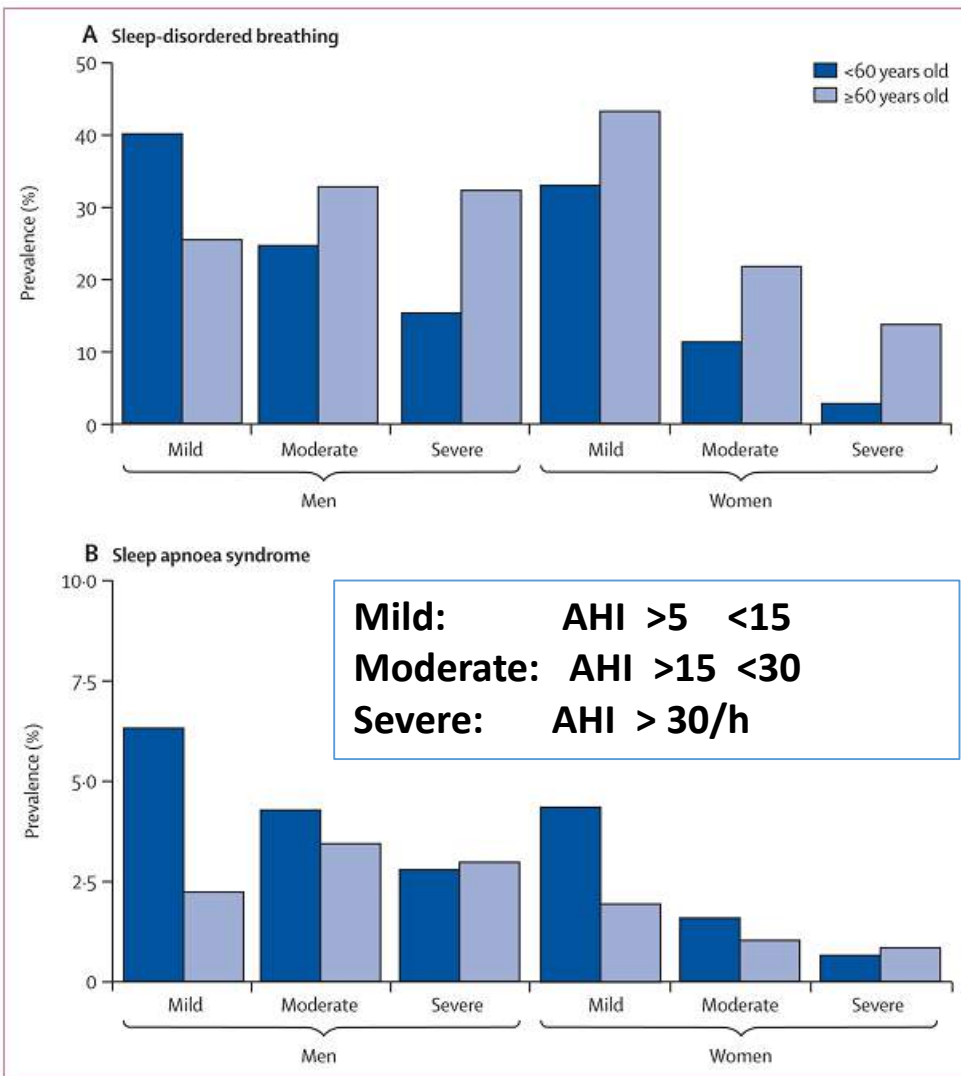
OSA grave sintomatica

Osa grave asintomatica

**OSA lieve moderata
pauci o asintomatica**



Prevalence of sleep-disordered breathing in the general population: the HypnoLaus study



■ <60 years old
 ■ ≥60 years old

Prevalenza relativa a dato strumentale (AHI > 5/h)

Prevalenza relativa a dato strumentale (AHI > 5/h) + sintomi

La dimensione del problema OSA in Italia

In Italia si può stimare che almeno **6.000.000** di persone siano affette da OSA e di questi circa **2.000.000** presentano un quadro conclamato

Ogni MMG (1500 assistiti)

ha più di **100** pazienti OSA di cui **40-50** conclamato

- ISTAT, 14° Censimento Generale della Popolazione
- Young T et al, NEJM, 1993; 328: 1230-1235
- Punjabi NM. Proc Am Thorac Soc 2008, 5(2):136-143

Le apnee ostruttive nel sonno (OSA) sono una patologia cronica con elevata prevalenza e significative implicazioni economiche e sociali, ancora sotto-diagnosticata e sotto-trattata.

I falsi miti: quale di questi soggetti può avere l'OSA?



Conseguenza cliniche del mancato riposo notturno

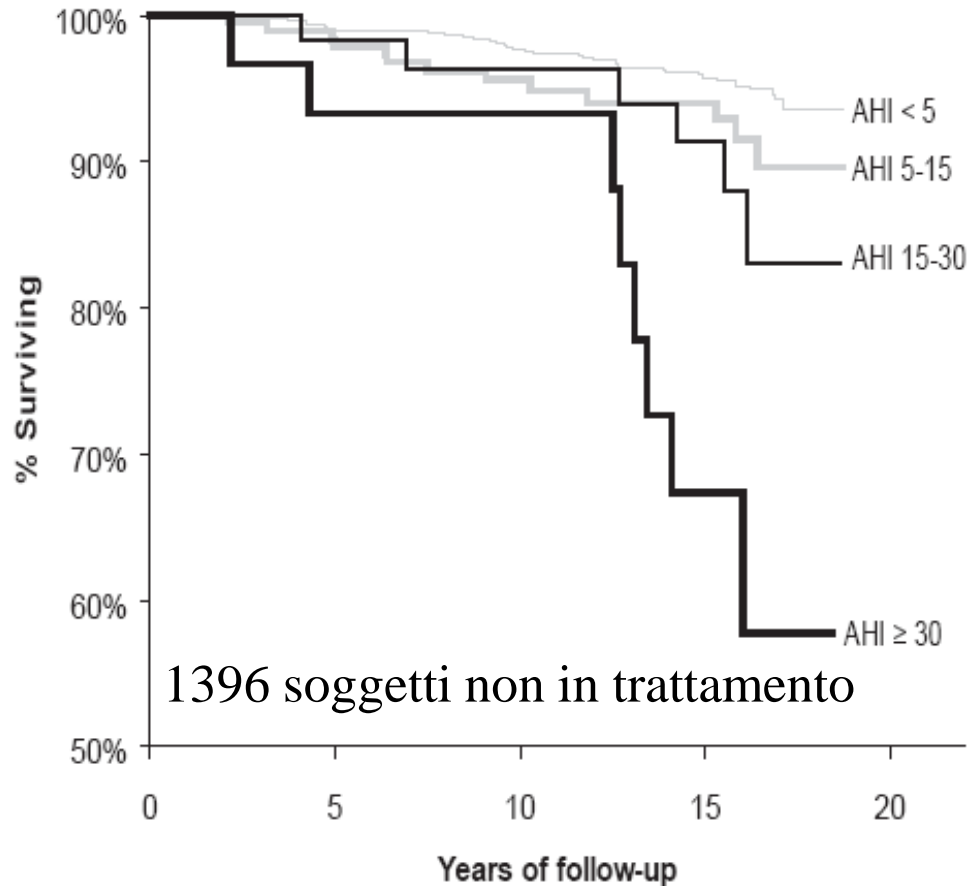
Need sleep?™



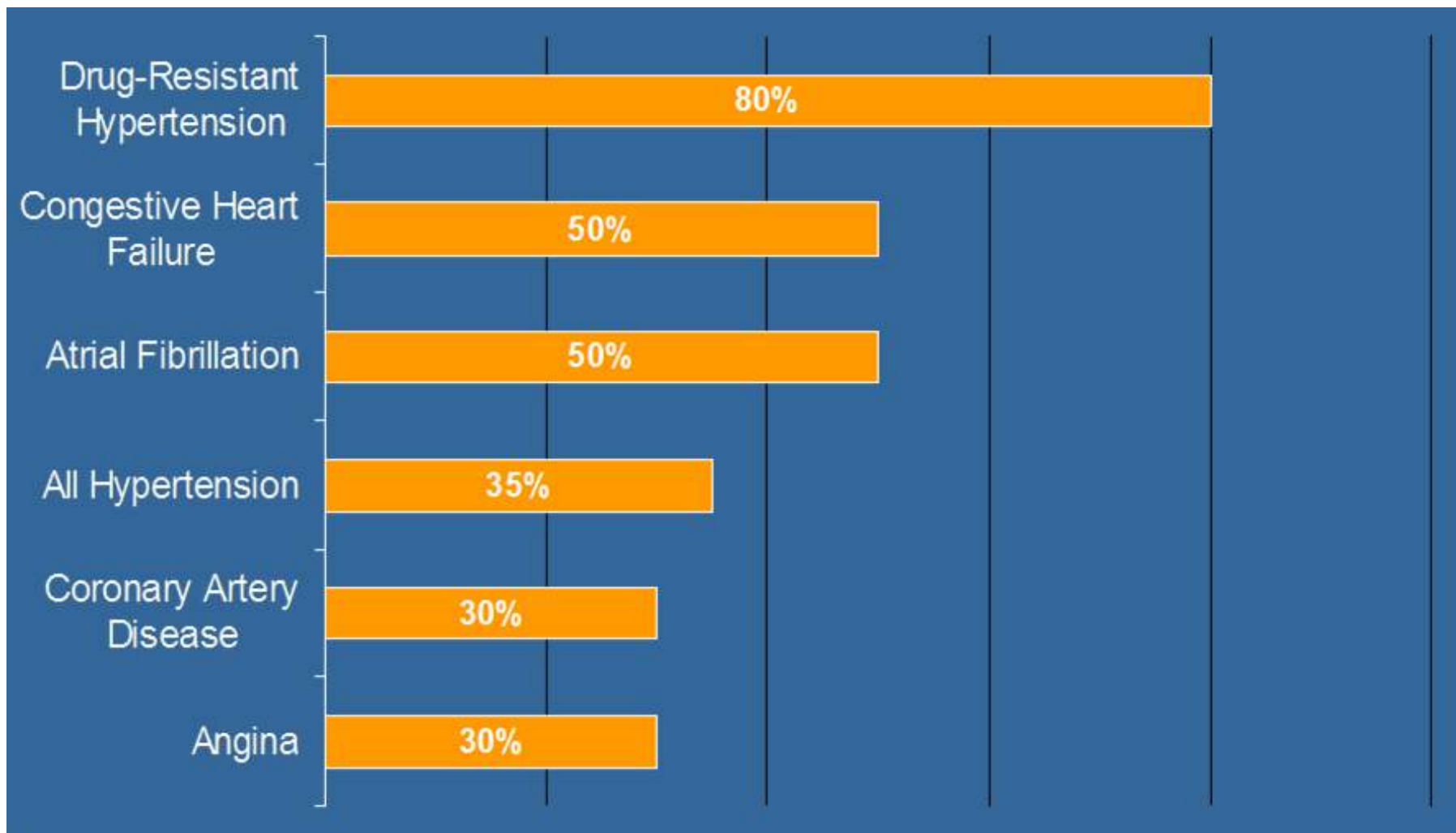
Riduzione
dell'attenzione in
situazioni a rischio

Needsleep.net

SDB and Mortality: eighteen-year follow-up of the Wisconsin Sleep Cohort



PREVALENZA DEI DRS TRA I PAZIENTI CON MALATTIE CARDIOVASCOLARI



Social consequences of sleep disordered breathing on patients and their partners: a controlled national study

Poul Jennum¹, Rikke Ibsen² and Jakob Kjellberg³

data from the Danish National Patient Registry and other public databases

30 278 patients with a diagnosis of sleep apnoea and compared them with 120 506 controls
1562 patients with a diagnosis of OHS, and compared them with 6241 control subjects

TABLE 2 Proportions of sleep apnoea and obesity hypoventilation patients and their controls receiving healthcare, and income (after diagnosis)

	Sleep apnoea	
	Patients	Controls
Outpatient treatment	60.3***	27.9
Inpatient treatment	29.1***	10.5
Medication	87.2***	70.3
Public health insurance	97.9***	93.2
Income from employment	60.1***	62.6
Public transfer income total	49.2***	42.0
Pension	11.7	11.3
Other public transfers	27.3***	23.3
Sickpay (publicly funded)	15.6***	10.8

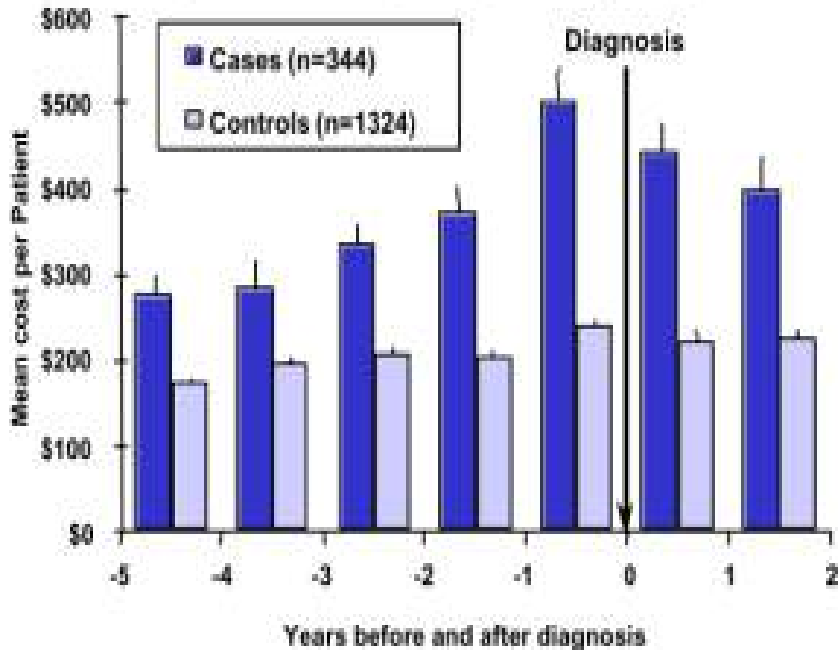
Data are presented as %. ***: $p < 0.001$, by Cochran–Armitage test, bootstrapped (by each expense type, irrespective of significance of share received).

Health Care Utilization in Males with Obstructive Sleep Apnea Syndrome Two Years After Diagnosis and Treatment

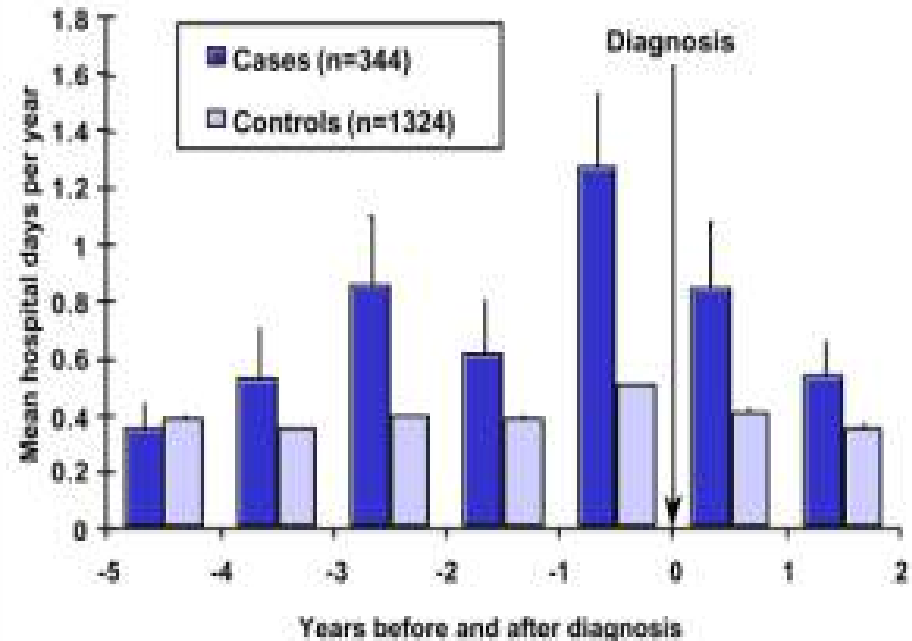
Sleep 1999

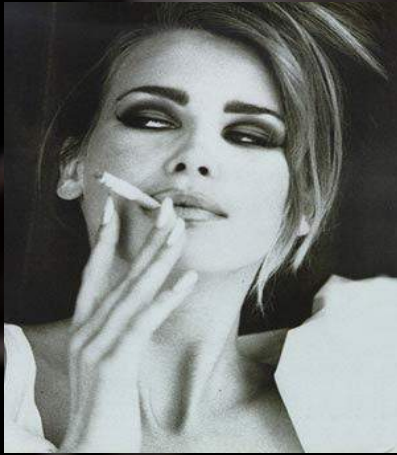
Ahmed Bahammam, MD, MRCP†, Kenneth Delaive, BSct, John Ronald BSc, Jure Manfreda, MD, Les Roos, PhD*, and Meir H. Kryger, MD, FRCPC†

Physician Claims (entire patient group)



Hospital stays (entire patient group)







Chest Research Foundation, Pune, India

Figura 3: Uso di combustibile da biomasse per cucinare in un villaggio indiano





Ministero della Salute

DIREZIONE GENERALE DELLA PROGRAMMAZIONE SANITARIA

Piano Nazionale della Cronicità

PROMOZIONE DELLA SALUTE, PREVENZIONE E DIAGNOSI PRECOCE

2

MACRO ATTIVITA'

- Modifica degli stili di vita e contrasto ai fattori di rischio
- Diagnosi precoce



MINISTERO DELLA SALUTE



REGIONE



CENTRI PREVENZIONE



MEDICO



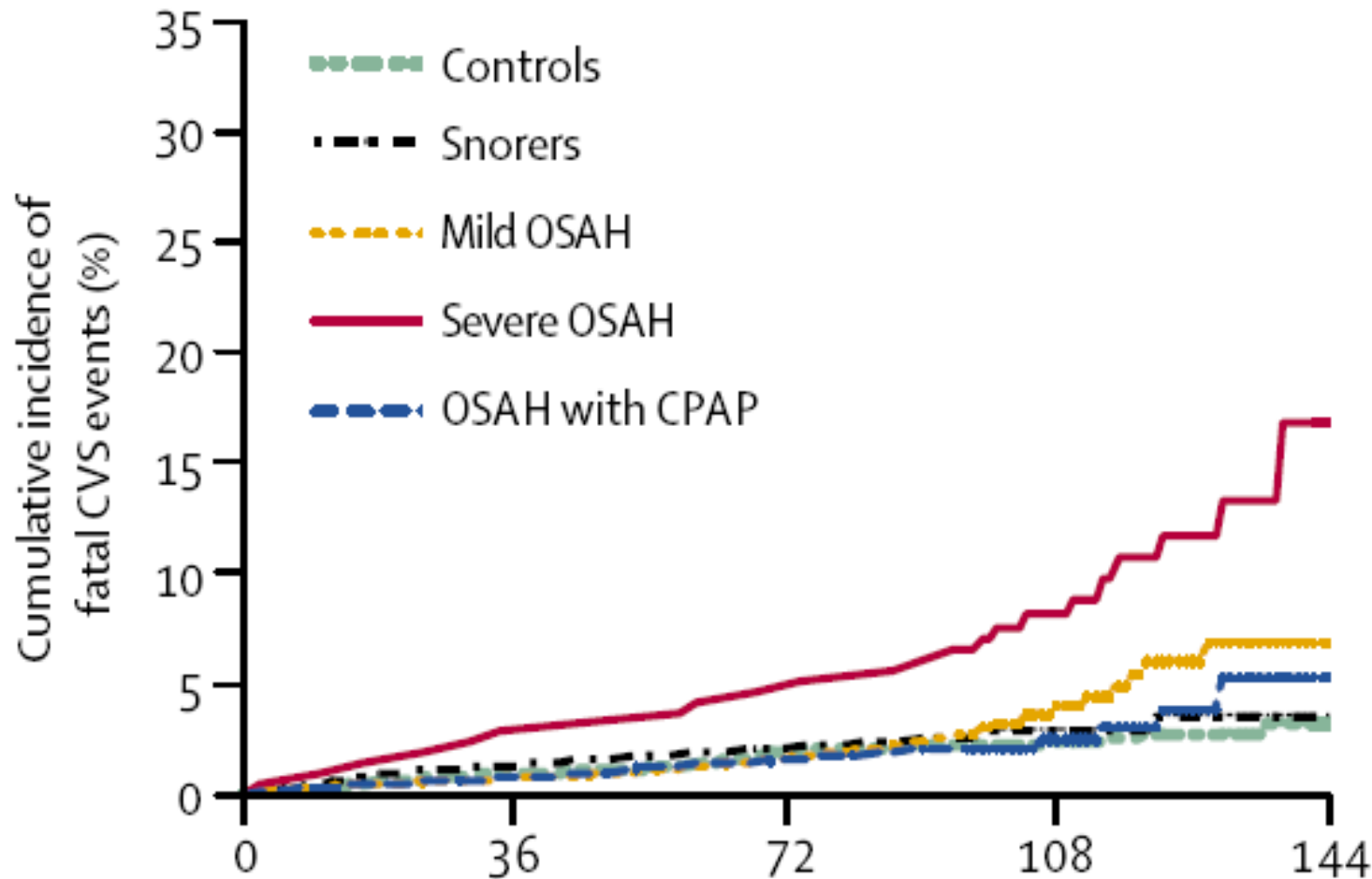
ASSOCIAZIONI

OBIETTIVI

- Promuovere l'adozione di corretti stili di vita nella popolazione generale e nei soggetti a rischio per prevenire l'insorgenza delle patologie croniche.
- Identificare precocemente le persone a rischio e quelle affette da patologie croniche da inviare ad adeguati percorsi di presa in carico.
- Ritardare l'insorgenza delle malattie croniche e delle loro complicanze nelle persone a rischio o già malate.

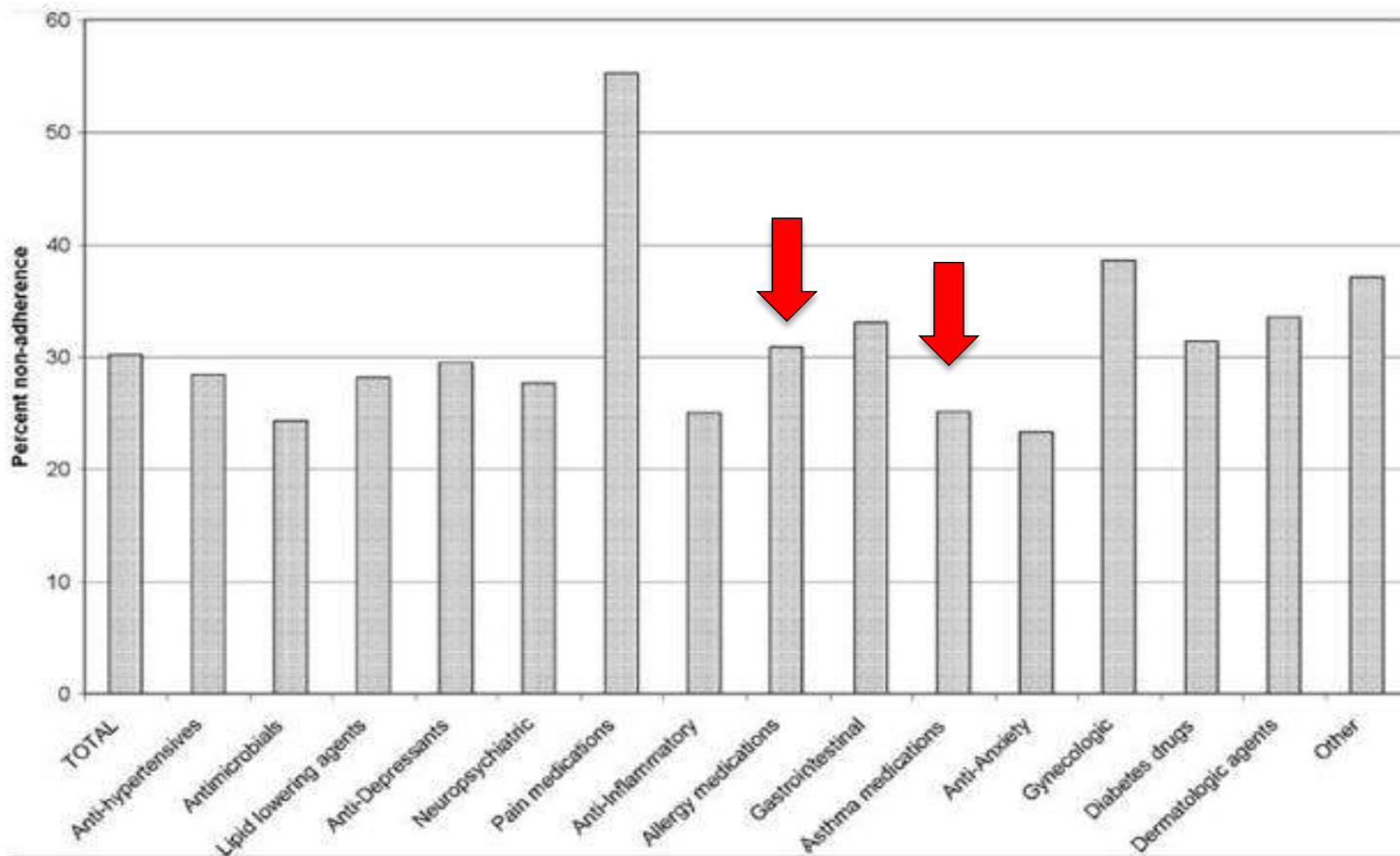
Grazie per l'attenzione

Incidenza cumulativa di eventi cardiovascolari fatali ed effetto del trattamento



Marin J et al. **Lancet**. 2005; 365: 1046-1053

Primary medication non-adherence: analysis of 195,930 electronic prescriptions



Based on 195,930 e-prescriptions from >75,000 patients

**Failure to initiate: primary nonadherence to newly prescribed medication
(patients aged 19 y).**

Lavie P: Mortality in sleep apnoea syndrome: a review of evidence.

Eur Respir Rev 2007; 16(106):203-210

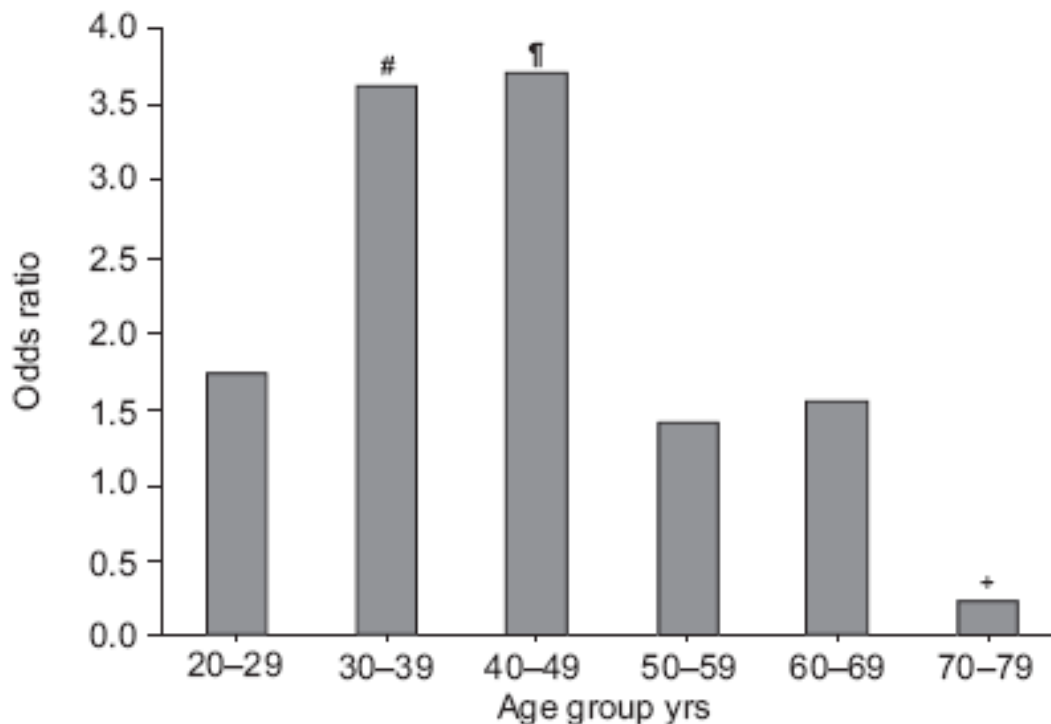


FIGURE 1. Odds ratios for mortality in males with sleep apnoea at different ages. #: $p < 0.002$; †: $p < 0.0002$; ‡: $p < 0.0007$.



The Price of Fatigue:

The surprising economic costs of unmanaged sleep apnea

as an educational resource to increase awareness among the general public and with policy makers about the significance of this public health problem.

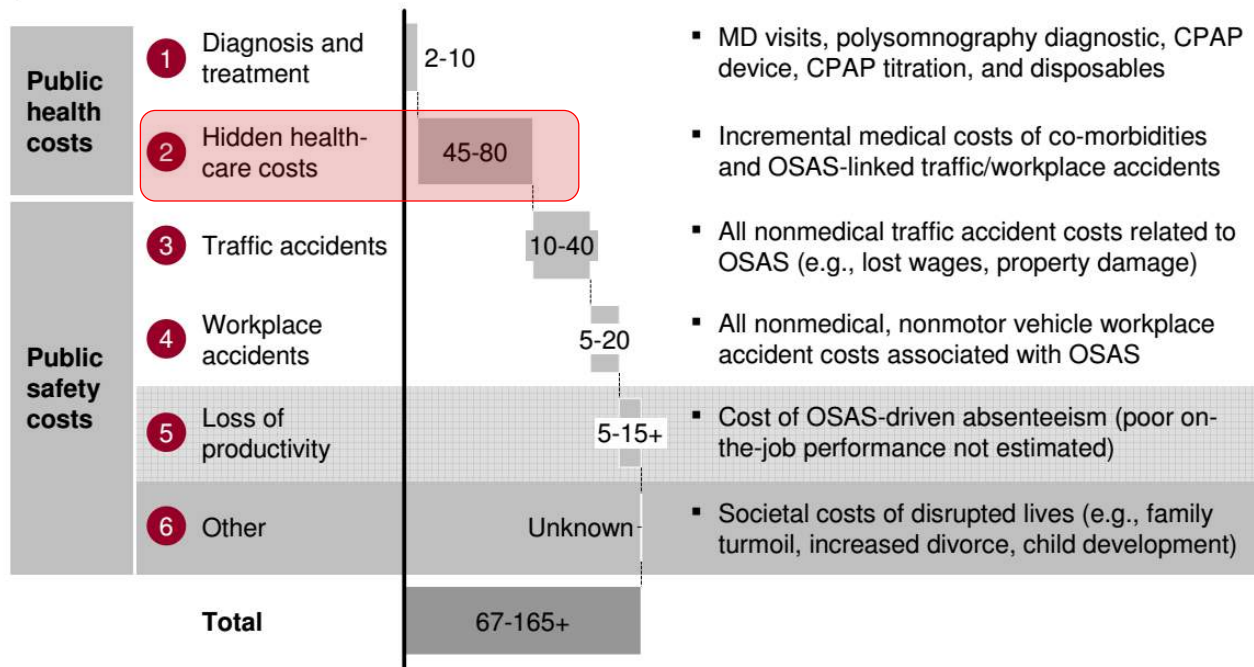
Economic cost of unmanaged moderate-severe OSA in the US estimated between ~\$65B and \$165B

PRELIMINARY

- Partially sized
- Not sized

Estimated annual economic cost of OSA/OSAS in the US

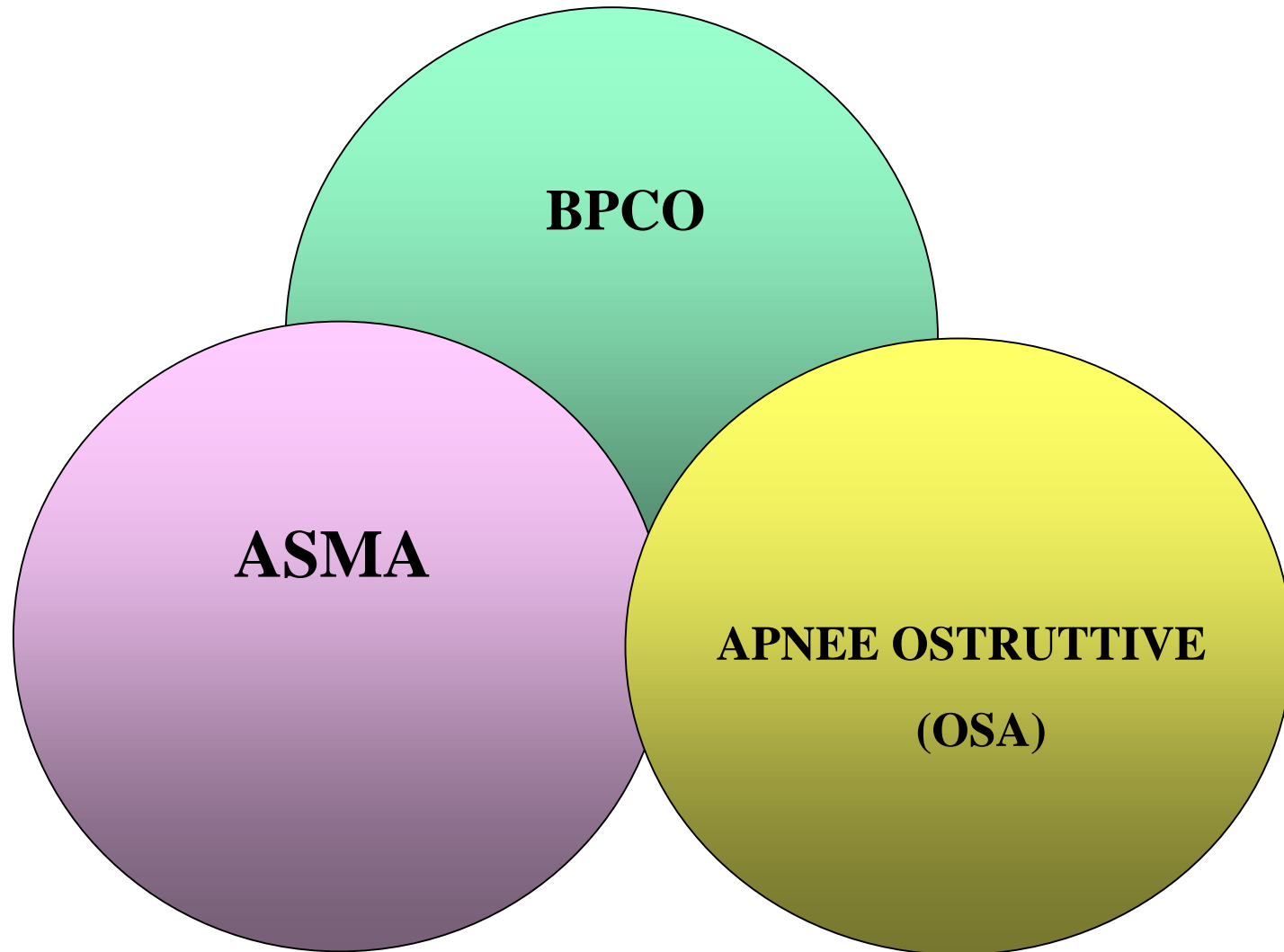
\$ Billions



**COSTI SANITARI
NASCOSTI**

SOURCE: Academic papers, expert interviews, market reports

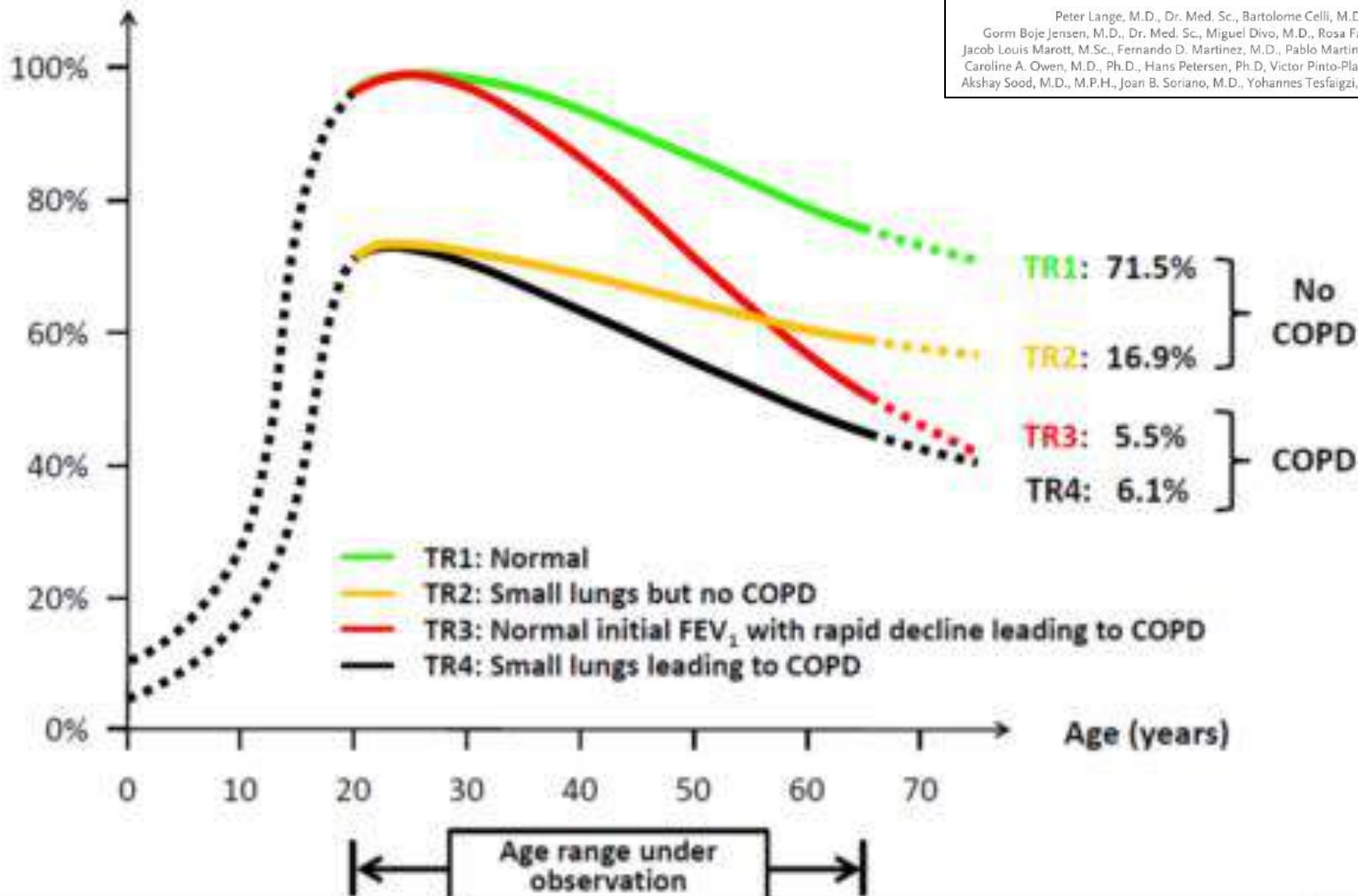
LE CRONICITA' RESPIRATORIE



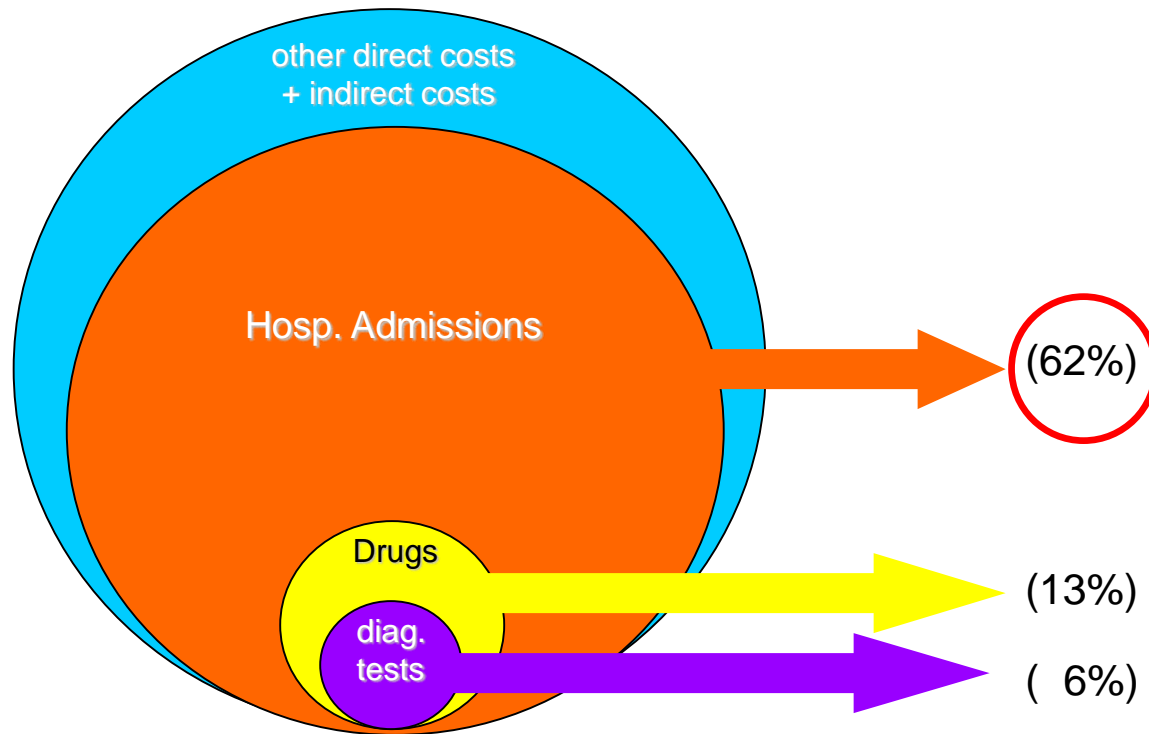
Lung-Function Trajectories Leading to Chronic Obstructive Pulmonary Disease

Peter Lange, M.D., Dr. Med. Sc., Bartolome Celli, M.D., Alvar Agustí, M.D., Ph.D., Gorm Boje Jensen, M.D., Dr. Med. Sc., Miguel Divo, M.D., Rosa Faner, Ph.D., Stefano Guerra, M.D., Ph.D., Jacob Louis Marott, M.Sc., Fernando D. Martinez, M.D., Pablo Martinez-Camblor, Ph.D., Paula Meek, R.N., Ph.D., Caroline A. Owen, M.D., Ph.D., Hans Petersen, Ph.D., Victor Pinto-Plata, M.D., Peter Schnohr, M.D., Dr. Med. Sc., Akshay Sood, M.D., M.P.H., Joan B. Soriano, M.D., Yohannes Tesfaygi, Ph.D., and Jørgen Vestbo, M.D., Dr. Med. Sc.

FEV₁ in percent of predicted maximally attained value

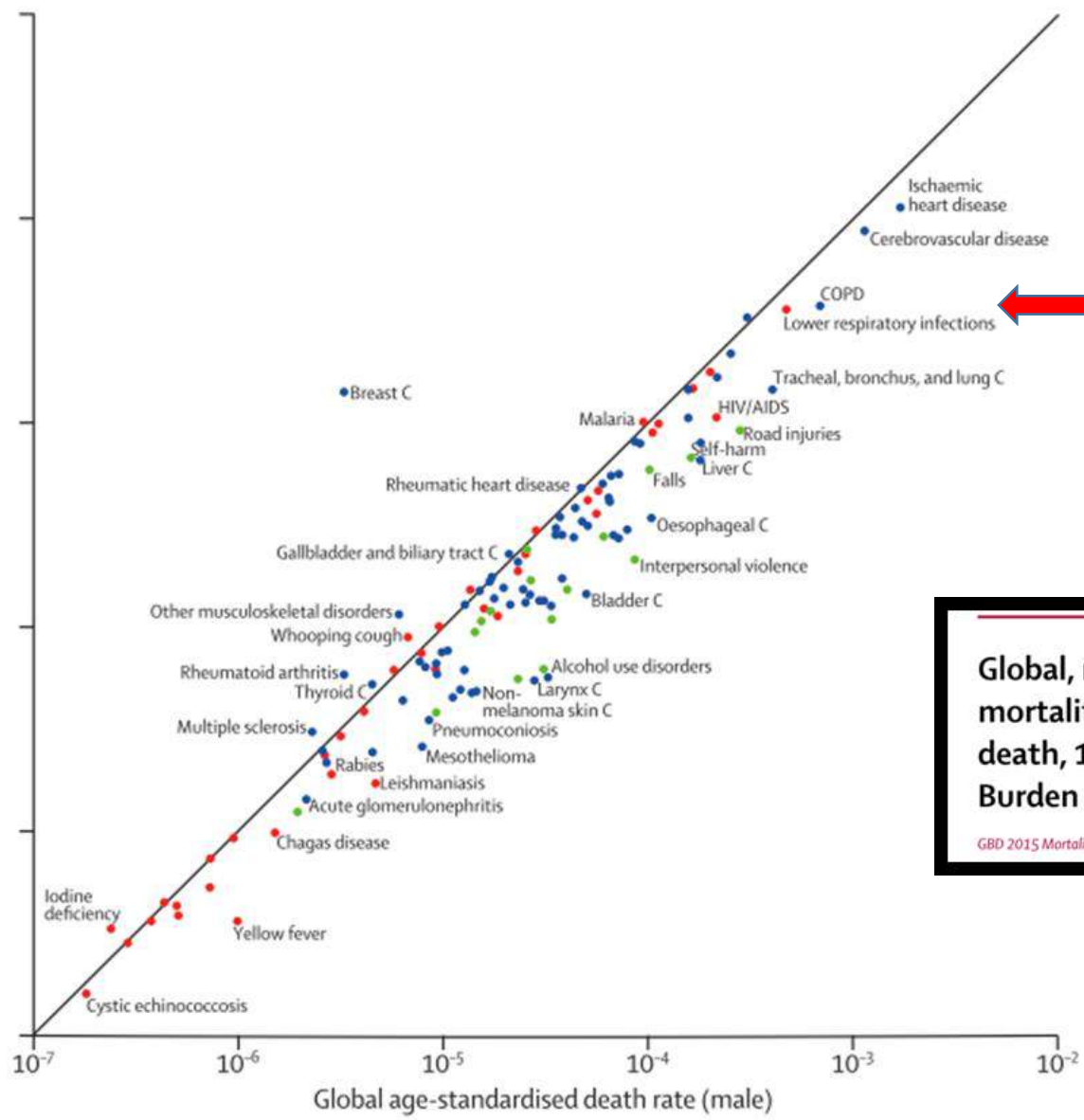


COPD: proportion of main direct costs



Dal Negro R.W. et al. Respiratory Medicine 2007

2015



Lancet 2016; 388: 1459-544

Global, regional, and national life expectancy, all-cause mortality, and cause-specific mortality for 249 causes of death, 1980-2015: a systematic analysis for the Global Burden of Disease Study 2015

GBD 2015 Mortality and Causes of Death Collaborators*