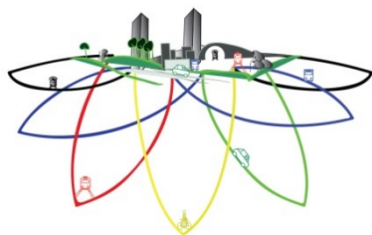


# GIORNATA DEL MOBILITY MANAGER



## RETE DEI MOBILITY MANAGER

16 Settembre 2016, Roma  
Aula Magna dell'Università degli Studi Roma Tre, via Ostiense 159

Smart mobility. Strong economy.  
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# TRASPORTO ATTIVO E SALUTE

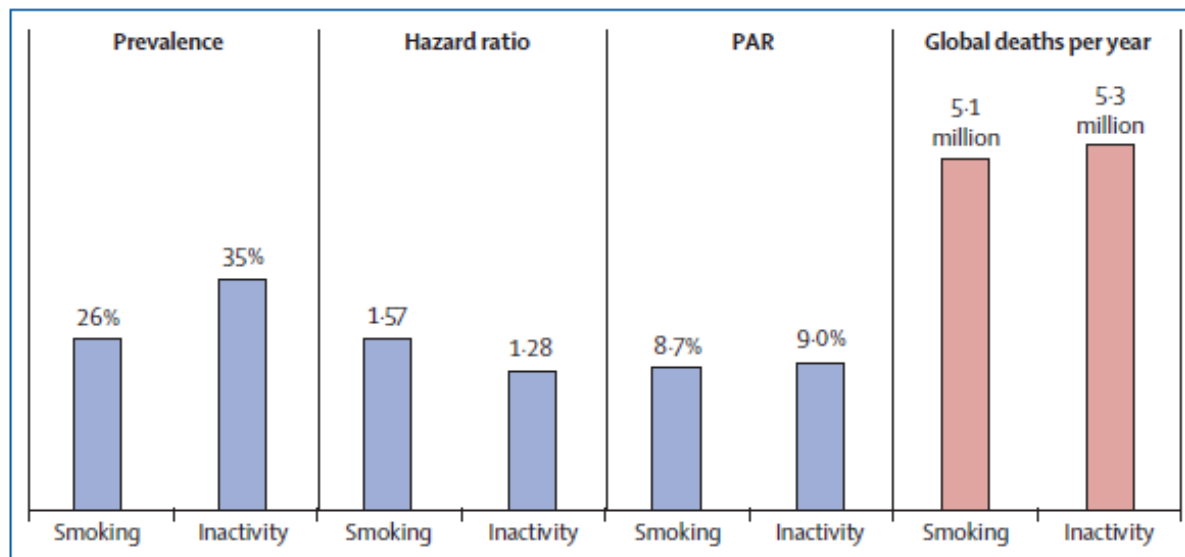
Francesca Racioppi,  
Ufficio Regionale per l'Europa  
Organizzazione Mondiale della Sanita'



Smart mobility. Strong economy.  
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# Inattività' fisica: un fattore di rischio paragonabile al fumo

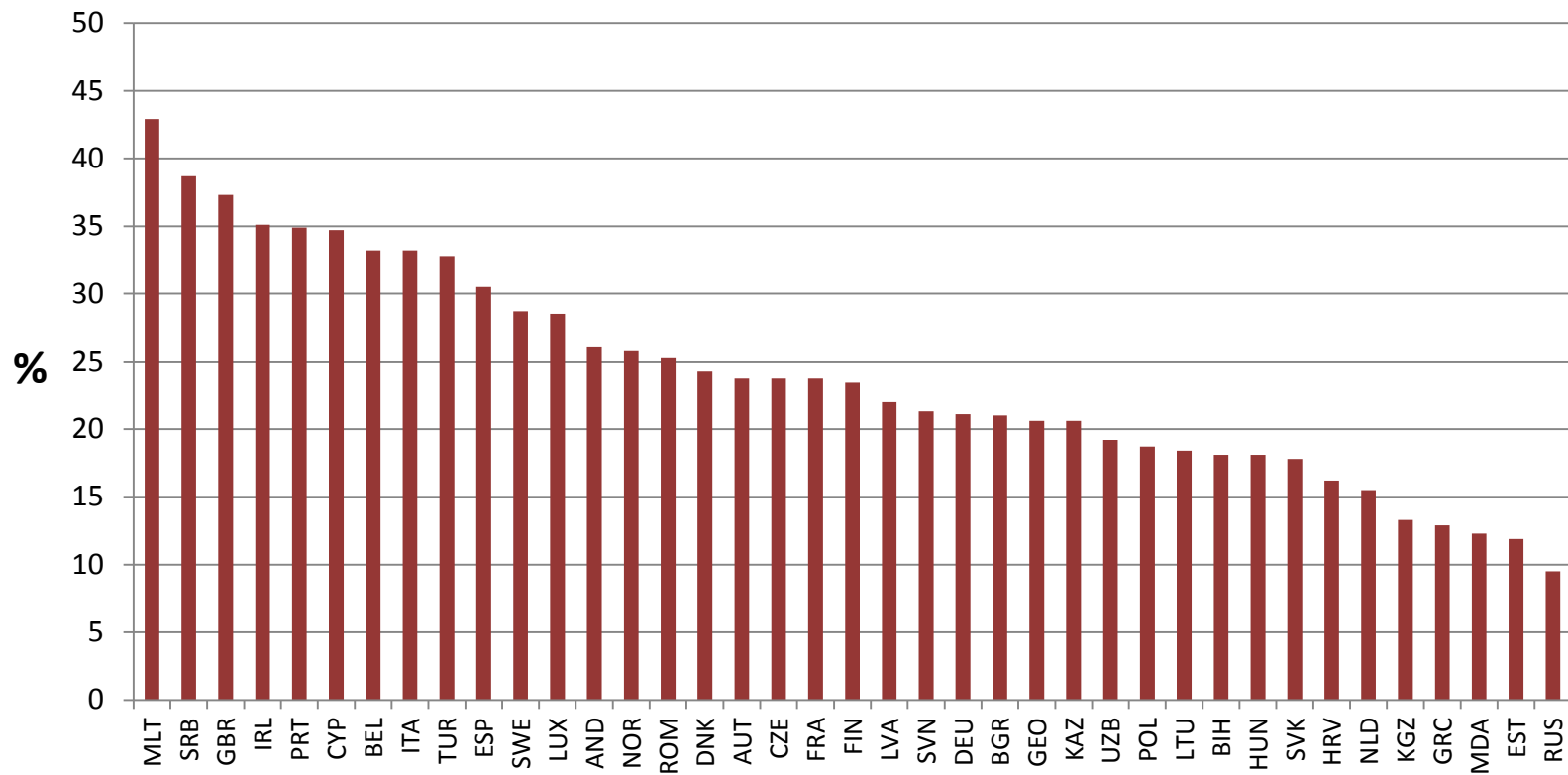


Lancet, 2012  
[http://dx.doi.org/10.1016/S0140-6736\(12\)61031-9](http://dx.doi.org/10.1016/S0140-6736(12)61031-9)

**Figure: Comparison of global burden between smoking and physical inactivity**

Prevalence of smoking, population attributable risk (PAR), and global deaths for smoking were obtained from WHO.<sup>7</sup> Hazard ratio for all-cause mortality of smoking was obtained from meta-analysis studies.<sup>8,9</sup> All inactivity data were obtained from Lee and colleagues.<sup>5</sup>

# Prevalenza dell'inattività fisica fra gli adulti (18+ anni)



WHO EURO

■ 2010



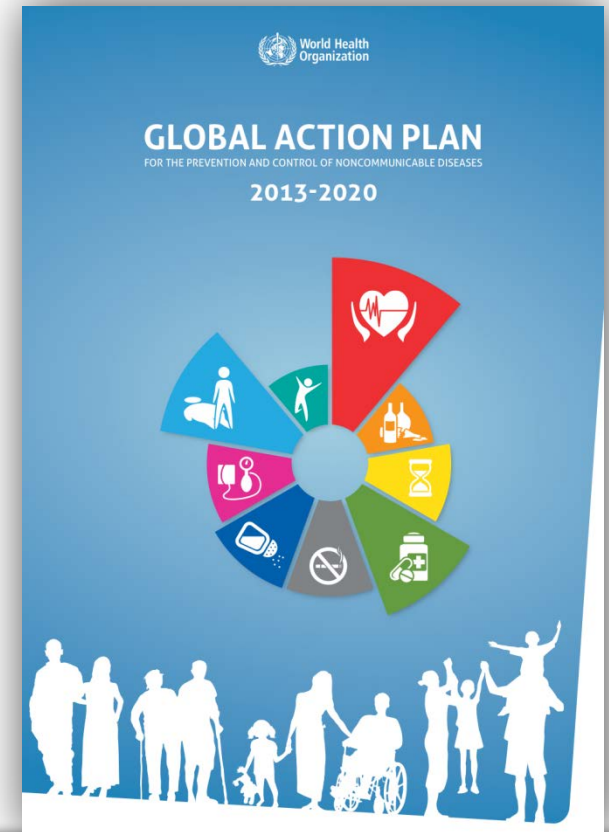
<http://apps.who.int/gho/data/view.main.2463?lang=en>



# Perche'siamo interessati al trasporto attivo?

# Obiettivi globali volontari

- 25% riduzione della mortalita' prematura da malattie non trasmissibili
- **10% riduzione dell'inattivita' fisica**
- 25% riduzione dell'ipertensione
- Fermare la crescita del diabete e dell'obesita'.



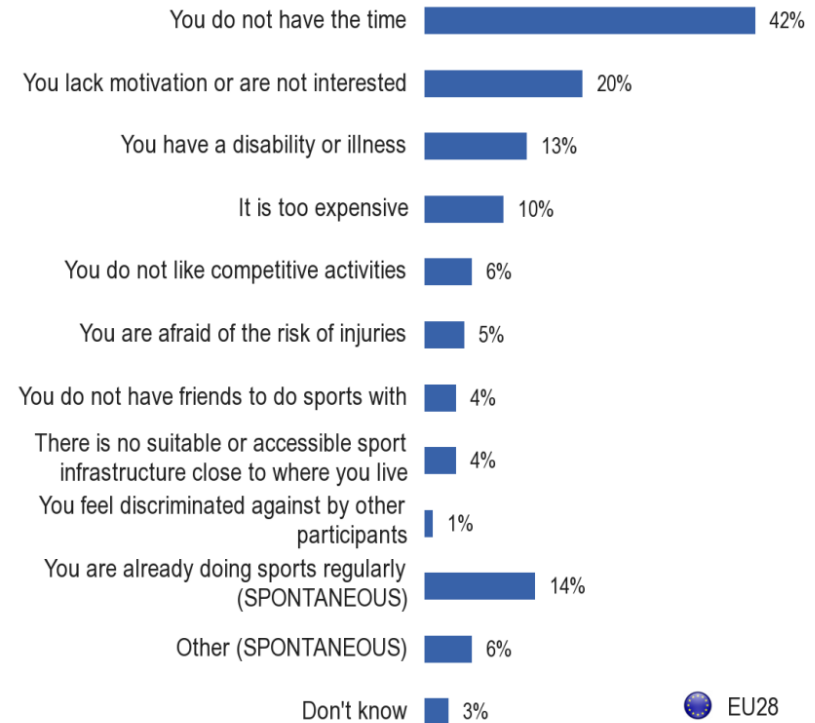
## Global Action Plan for the Prevention and Control of NCDs 2013–2020



# La mancanza di tempo e' riferita come la ragione principale per non praticare lo sport piu' regolarmente.

Special Eurobarometer 412 "Sport and Physical Activity" 2014

QD9. What are the main reasons currently preventing you from practising sport more regularly?



EU28

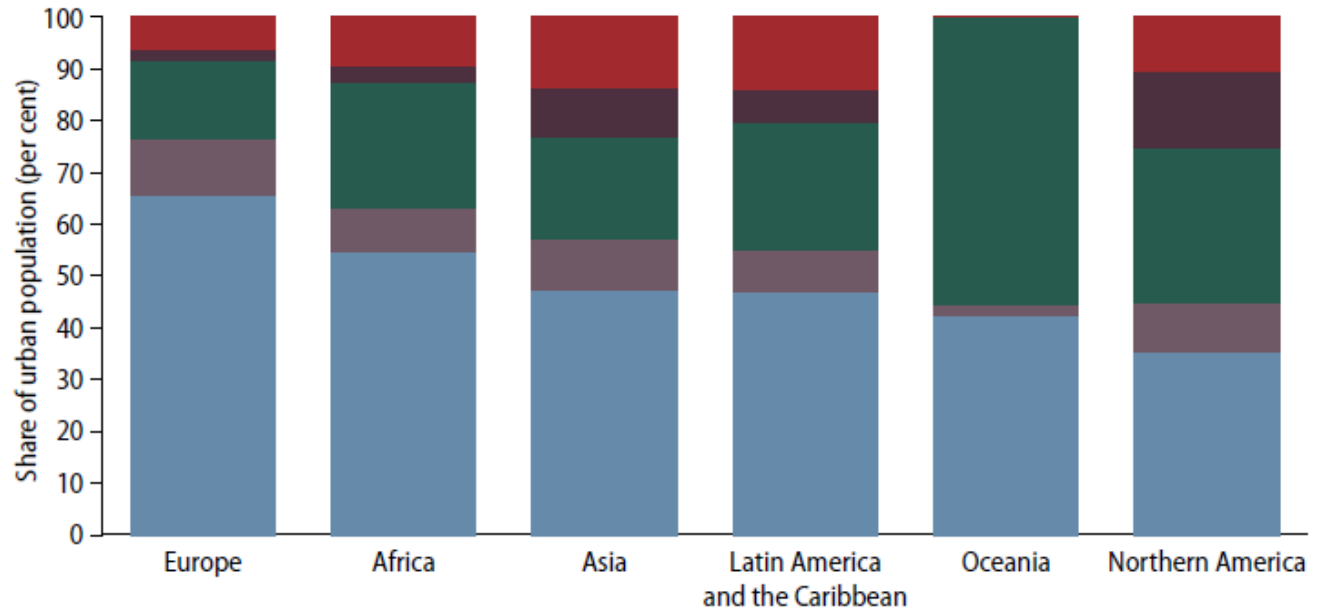


Circa il 90 % degli Europei vive in città' con meno di 5 milioni di abitanti e il 65 % in aree urbane con meno di 500 000 abitanti

Population distribution by city size varies across major areas in 2014

United Nations, Department of Economic and Social Affairs, Population Division (2014). *World Urbanization Prospects: The 2014 Revision, Highlights (ST/ESA/SER.A/352)*.

- Megacities of 10 million or more
- Large cities of 5 to 10 million
- Medium-sized cities of 1 to 5 million
- Cities of 500 000 to 1 million
- Urban areas smaller than 500 000





# Trasporto Attivo e Indice dei Massa Corporeo



## Impact of changes in mode of travel to work on changes in body mass index: evidence from the British Household Panel Survey

Adam Martin,<sup>1</sup> Jenna Panter,<sup>2</sup> Marc Suhrcke,<sup>1,3</sup> David Ogilvie<sup>2</sup>

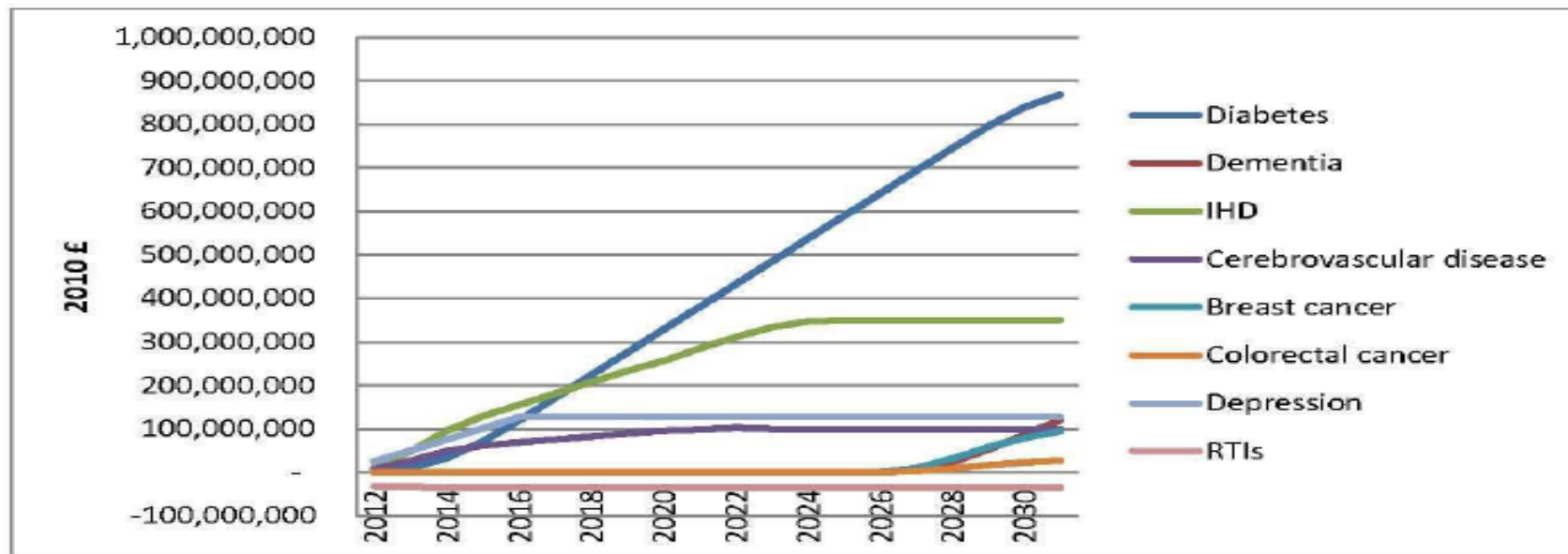
### Results

*“.....switching from private motor transport to active travel or public transport [...] was associated with a significant reduction in BMI compared with continued private motor vehicle use. Larger adjusted effect sizes were associated with switching to active travel [...]. switching from active travel or public transport to private motor transport was associated with a significant increase in BMI [...]”.*

*Martin A, et al. J Epidemiol Community Health 2015;0:1–9.  
doi:10.1136/jech-2014-205211*

# Il trasporto attivo puo' ridurre i costi sanitari

**Figure 1: Potential annual NHS expenditure averted by year and health outcome from Increased Active Travel scenario**



James Jarrett, James Woodcock, Ulla K. Griffiths, Zaid Chalabi,  
Phil Edwards, Ian Roberts, Andy Haines Lancet 2012

RESEARCH

Open Access

# Systematic review and meta-analysis of reduction in all-cause mortality from walking and cycling and shape of dose response relationship

Paul Kelly<sup>1,2\*</sup>, Sonja Kahlmeier<sup>3</sup>, Thomas Götschi<sup>3</sup>, Nicola Orsini<sup>4</sup>, Justin Richards<sup>5</sup>, Nia Roberts<sup>6</sup>, Peter Scarborough<sup>1</sup> and Charlie Foster<sup>1</sup>

<http://www.biomedcentral.com/content/pdf/s12966-014-0132-x.pdf>

# Andare regolarmente a piedi o in bicicletta riduce la mortalita' di circa il 10 %

- It can have a big impact also beyond health
  - Improve road safety, air quality and noise
  - Reduce congestion, energy consumption and CO2 emissions
  - Reduce need for more expensive infrastructure for cars
  - Improved accessibility and quality of urban life
  - Big potential for replacing car trips

## It's easy and fair

- Equitable and easily accessible
- Does not require much extra time
- Minimal investment of household income
- Compatible with average travel distances in Europe (more than 50 % of trips are less than 5 km)

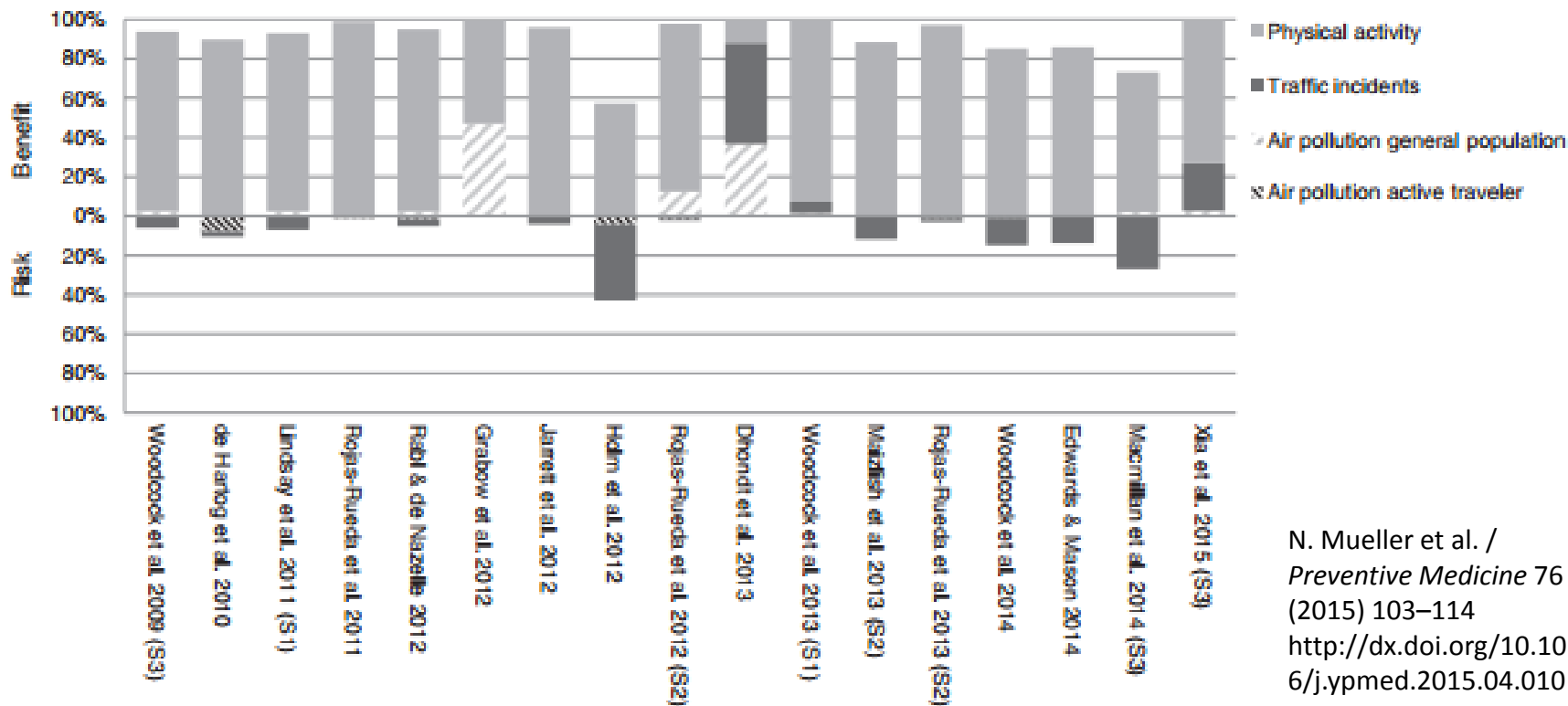


# Quale e' il significato di questi numeri? Uno studio di caso per l'Unione Europea\*

Se tutti i cittadini UE di età compresa fra 20-74 anni andassero in bicicletta o camminassero ulteriori **15 minuti al giorno**, si potrebbero prevenire **100,000 morti premature all'anno**.

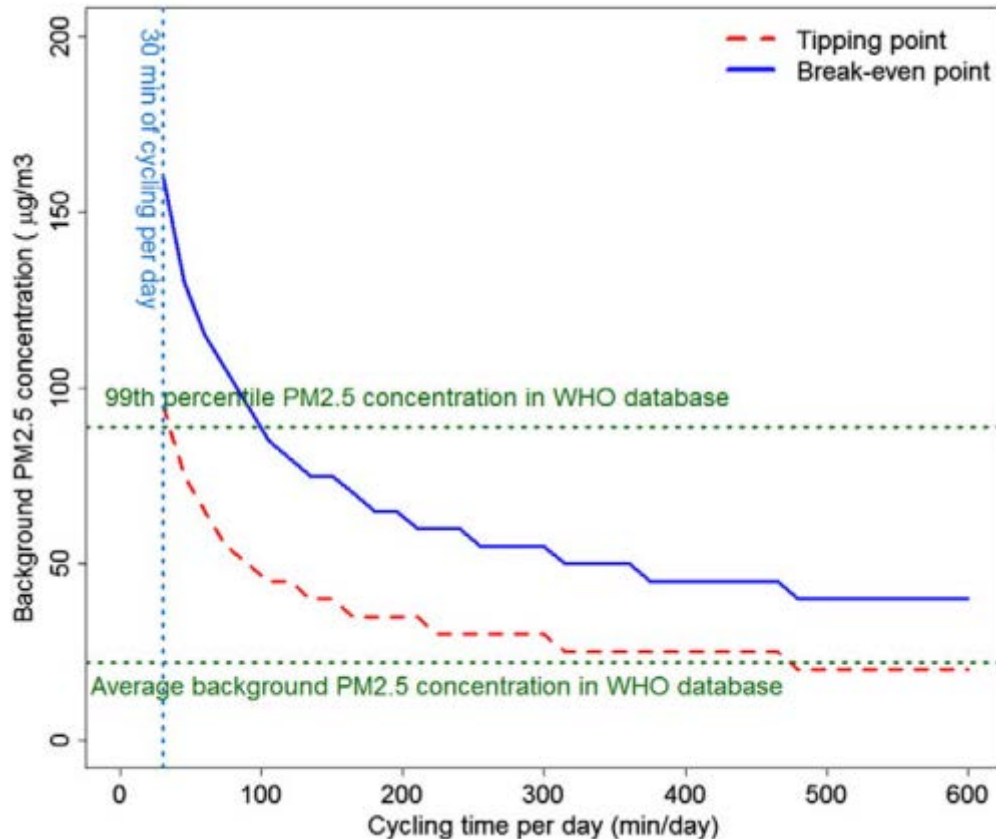
\* Estimates developed by the WHO Regional Office for Europe on the occasion of the informal Council of Ministers of Environment held in October 2015 during the Luxembourg Presidency of the EU, using the WHO Health Economic Assessment Tools (HEAT)

# Studi in contesti differenti indicano che i benefici del trasporto attivo per la salute sono superiori ai rischi



N. Mueller et al. /  
*Preventive Medicine* 76  
 (2015) 103–114  
<http://dx.doi.org/10.1016/j.jpmed.2015.04.010>

# I benefici dell'attività fisica superano i danni causati dall'inquinamento atmosferico tranne che nelle condizioni di inquinamento piu' estreme

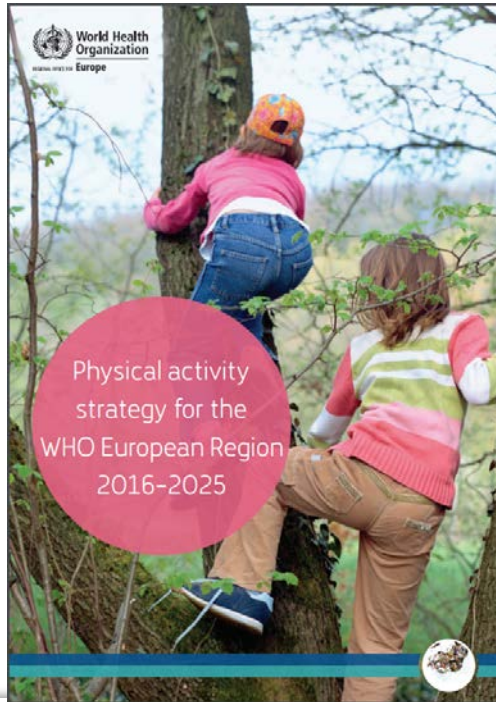


- For half an hour of cycling every day, the background PM2.5 concentration would need to be 95 µg/m<sup>3</sup> to reach the tipping point
- The break-even point for half an hour of cycling every day was at 160 µg/m<sup>3</sup>

M. Tainio et al. / Preventive Medicine 87 (2016) 233–236

[doi:10.1016/j.ypmed.2016.02.002](https://doi.org/10.1016/j.ypmed.2016.02.002)

# Il trasporto attivo e' parte delle politiche e strategie di sanita' pubblica Europee



- Priority area 3: Promoting physical activity for all adults as part of daily life, including during transport, leisure time, at the workplace and through the health-care system
  - **Objective 3.1: Reduce car traffic and increase walking and cycling suitability**



# Il trasporto attivo contribuisce a mitigare i cambiamenti climatici

Mitigation strategy	Potential to reduce emissions (illustrative example)	Likely reduction of health risk factors		Additional effects, limitations and comments	
		Size and direction of effect	Strength of evidence		
<b>IPCCa</b> <i>Modified</i>	21% reduction in light-duty vehicle CO <sub>2</sub>	Air pollution	- to ++	Moderate	Increasing fuel efficiency could lower travel costs and thus promote more motorized
<b>IPCCc</b> Land use changes and alternatives to private motorized transport	Package of walkways, cycleways and bus rapid transit could reduce emissions by 25% at a cost of US\$ 30/tCO <sub>2</sub> . <sup>20</sup>  Improved land use could reduce emissions by 21% over a 20-year period at a cost of US\$ 91/tCO <sub>2</sub> . <sup>10</sup>	Air pollution		++	Moderate
		Physical activity		++	Moderate
		Road traffic injury		++	Moderate
		Noise		++	Weak
		Social effects		++	Weak
		Land use			Not applicable

Source: World Health Organization, 2011. *Health co-benefits of climate change mitigation - Transport sector*,



# Il trasporto attivo puo' creare "green jobs"

- Up to **435,000 cycling jobs created** if 56 major cities achieved Copenhagen's cycling modal share
- Strong correlation between cycling and the number of cycling-related jobs
- Cycling jobs are not only in cities – tourism jobs across wider geographical areas
- The indirect and induced jobs related to cycling can be significant



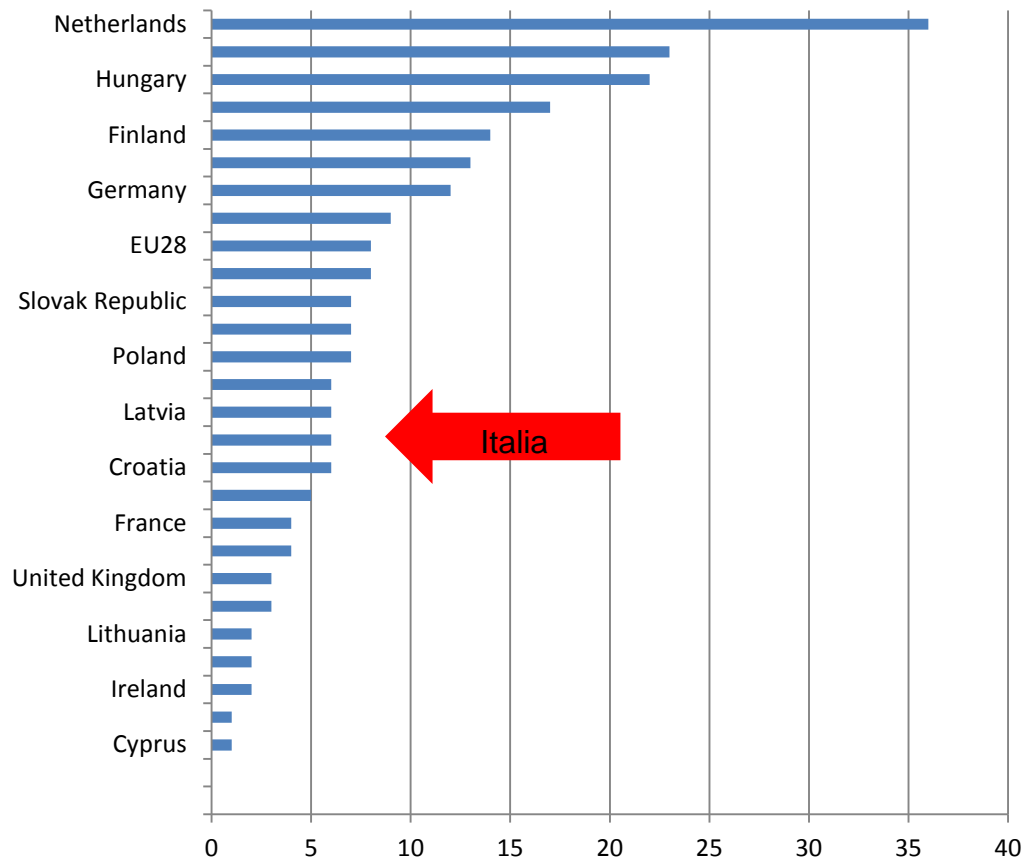
Los Angeles and Copenhagen, in the first two of these, the jobs associated with public bike hire schemes accounted for more than 10% of the total number of cycling jobs, whereas in Groningen over 20% of the cycling jobs in the city were associated with bicycle parking.

location for which the greatest number of cycling jobs was identified was the city of Portland, Oregon in the USA. This showed an increase in the number of jobs over time as the amount of cycling also increased. Additionally, the city with one of the highest number of jobs per 1000 people, the Dutch city of Groningen,



# Cosa facciamo per promuovere il trasporto attivo?

# Ci sono ampi margini per una crescita del trasporto attivo in nella UE



■ On a typical day, which mode of transport do you use most often? Bicycle (% respondents)

European Commission:  
Special Eurobarometer 422a  
Quality of transport (Dec. 2014)



# Integrare considerazioni di salute pubblica nella pianificazione del trasporto

- Recognizing the importance of economic analysis in transport: benefit-cost ratio is king
- Economic assessment of health benefits of walking or cycling
- Practical online tool designed for transport planners

*Dato un certo volume di attivita' ciclistica o pedonale in una popolazione definita, quale e' il valore economico dei benefici per la salute?*

# Health economic assessment tools (HEAT) for walking and for cycling



# A collaborative and open-ended project



Federal Ministry for the  
Environment, Nature Conservation  
and Nuclear Safety



MINISTERIUM  
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Schweizerische Eidgenossenschaft  
Confédération suisse  
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Confederaziun svizra



Harry Rutter, Francesca Racioppi, Sonja Kahlmeier, Nick Cavill, Pekka Oja, Heini Sommer, Hywell Dinsdale, Charlie Foster, Paul Kelly, Thomas Götschi, Christian Schweizer

Karim Abu-Omar, Lars Bo Andersen, Hugh Ross Anderson, Finn Berggren, Tegan Boehmer, Nils-Axel Braathen, Dushy Clarke, Andy Cope, Audrey de Nazelle, Mark Fenton, Jonas Finger, Francesco Forastiere, Richard Fordham, Eszter Füzeki, Frank George, Regine Gerike, Mark Hamer, Max Herry, Marie-Eve Heroux, Gerard Hoek, Luc Int Panis, Michal Krzyzanowski, I-Min Lee, Christoph Lieb, Brian Martin, Markus Maybach, Christoph Schreyer, Marie Murphy, Nanette Mutrie, Mark Nieuwenhuijsen, Laura Perez, Gabe Rousseau, David Rojas Rueda, Candace Rutt, Tom Schmid, Elin Sandberg, Mulugeta Yilma, Daniel Sauter, Peter Schantz, Peter Schnohr, Dave Stone, Jan Sørensen, Gregor Starc, Robert Thaler, Marko Tainio, Sylvia Titze, James Woodcock, Wanda Wendel Vos, Paul Wilkinson



# Use of the HEAT methodology



- England
  - Part of official toolbox for the assessment of transport projects (WebTAG)
- London
  - Action plan, recommendation for using HEAT in business cases
- Austria
  - Health effects of national cycling and walking masterplan
- Sweden
  - Part of the methodologies used by the Swedish Transport Administration
- USA
  - Evaluation of 4 FHWA non-motorized transportation pilot projects
- Barcelona, Boston, Brighton and Hove, Florence, Glasgow, Kuopio, Modena, Nantes, Pärnu,...





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Unlocking new opportunities  
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ROMA TRE  
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MOBILITY ACTION  
EUROPEAN MOBILITY WEEK  
16-22 SEPTEMBER 2016

# Case studies on investing in jobs in green and healthy transport

**Number of jobs generated:**

- USA: 36,000 jobs per USD 1 billion
- EU: 21, 500 jobs per EUR1 billion

**Higher job intensity**

**More local jobs**

**Broad range of jobs**

# Fourth High-level Meeting on Transport, Environment and Health: City in motion: people first! (Paris, 14-16 April 2014)

Working with Ministries of Transport, Environment and Health



**THE PEP** Transport, Health and Environment  
Pan-European Programme

**UNITED NATIONS**  
ECONOMIC COMMISSION FOR EUROPE

**World Health Organization**  
REGIONAL OFFICE FOR Europe



# Verso lo sviluppo di un Master Plan Europeo per la promozione della ciclabilità'

- Mandato derivato dalla Dichiarazione di Parigi
- In fase di sviluppo attraverso una partnership del THE PEP sulla ciclabilità'.



10. *Decide* to initiate the development of a pan-European Master Plan for Cycling Promotion, supported by guidelines and tools to assist in the development of cycling promotion policies at the national level. This new initiative will be undertaken within the framework of THE PEP partnerships;

# Verso un futuro migliore?



TRANSPORT, TELECOMMUNICATIONS AND ENERGY INFORMAL MINISTERIAL MEETING

## Informal Transport Council – The Ministers and Secretaries of State adopt a "Declaration on cycling as a climate friendly transport mode"

07-10-2015



The European Union (EU) Ministers of Transport and Secretaries of State in charge of this competence met in Luxembourg on 7 October 2015 for an informal meeting devoted to cycling as a method of transport. Organised by the Luxembourg Presidency of the Council of the EU, the meeting was chaired by the Luxembourg Minister of Transport, François Bausch. In particular, discussions concerned the effectiveness of bicycles as a method of transport and their social, ecological and economic impact in the EU. The participants, who were able to test different types of bicycles on a cycle route laid out inside the Conference Centre where the meeting was being held, adopted a declaration on cycling as a "climate friendly" transport mode.

As an introduction to the press conference which followed the meeting, the Luxembourg Minister of Transport, **François Bausch**, highlighted that it was the very first meeting that the Council of Ministers had devoted to policy in the field of cycling.

The Minister called to **improve the European policy on cycling and to raise awareness among the European population**, recalling that he was fully aware of the fact that, by virtue of the principle of subsidiarity, the greatest responsibility would be national and even local. "But, on a European level, we must invest in order to encourage the culture of cycling because this sector has huge potential", explained François Bausch.



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François Bausch at press conference following the informal meeting of the ministers for Transport on 7 October 2015 in Luxembourg



# In conclusion

1. Present transport and land use patterns pose high risks to health and the environment.
2. Evidence is rapidly emerging about the opportunities offered by active mobility and public transport as policies that can deliver multiple societal benefits
3. There is a need to further develop tools and arguments to support a shift in policy and attitudes
4. Research and multisectoral partnerships involving governments, civil society and the academia at the international, national and local level are KEY to move forward.

# Per contattarci:

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[www.euro.who.int/physical-activity](http://www.euro.who.int/physical-activity)

[www.thepep.org](http://www.thepep.org)

