Co-funded by the
Erasmus+ Programme
of the European Union

2020 - 2022

PAYAMOS

Technische Universität Berlin

Mine Vaganti NGO

Cracow University of Technology

SPELL Spor Elçileri Derneği

UPT Erasmus Centre for Urban, Port and Transport Economics

E.I.T.B.E. 1954

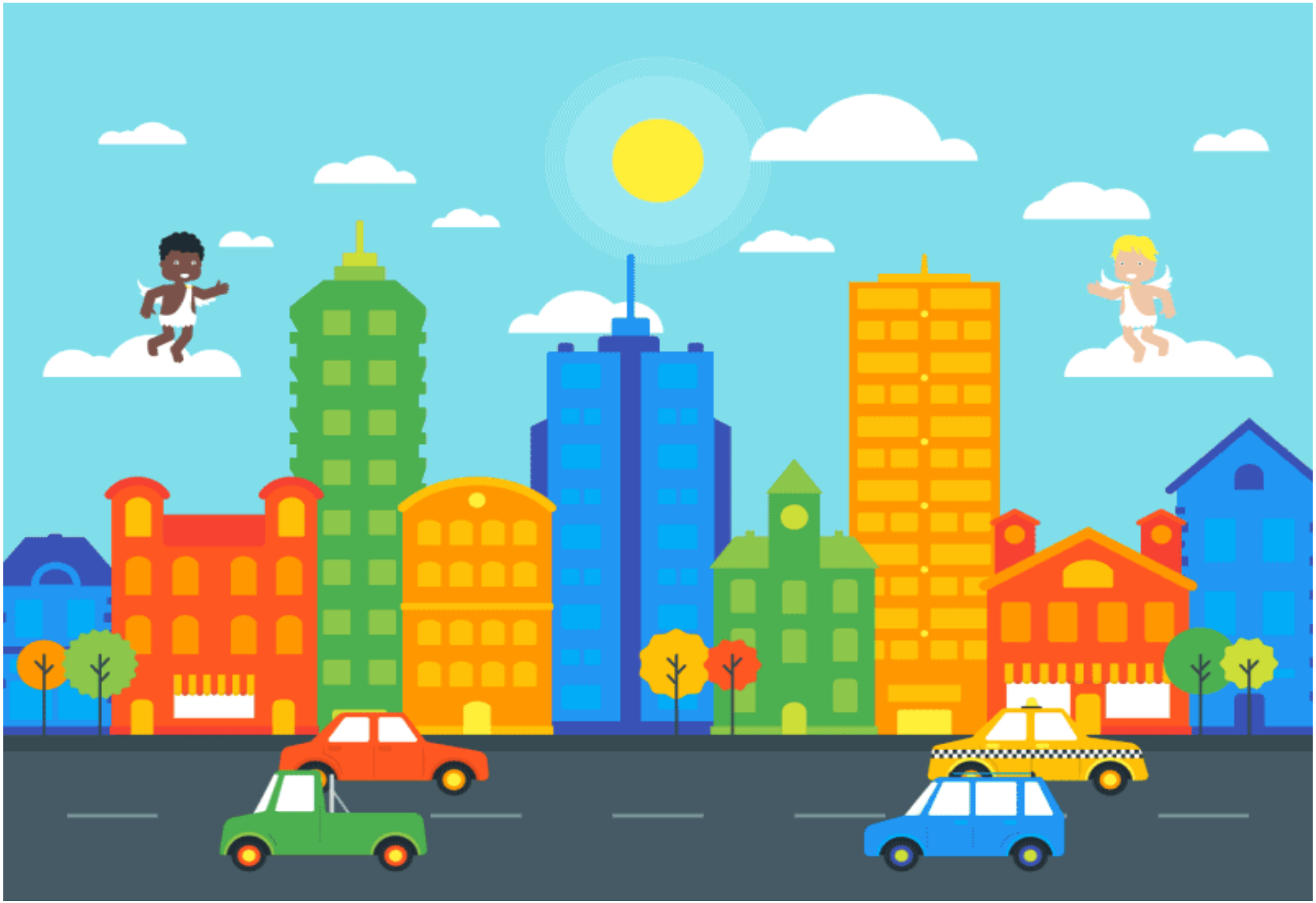
PAYAMOS

Co-funded by the Erasmus+ Programme of the European Union

Promotion of Physical Activity of the Youth through Active Mobility to School

Pn	Organisation	City	Country	Role
1	Technische Universität Berlin	Berlin	Germany	Applicant
2	Erasmus Centre for Urban, Port and Transport Economics BV	Rotterdam	Netherlands	Partner
3	Politechnika Krakowska	Krakow	Poland	Partner
4	Northern Greece Physical Education Teachers Association (EGVE)	Thessaloniki	Greece	Partner
5	MINE VAGANTI NGO	Perfugas	Italy	Partner
6	Rijeka Sports Association for Persons with Disabilities	Rijeka	Croatia	Partner
7	Spor Elcileri Dernegi	Yesilyurt	Turkey	Partner

(Project Number: 613171-EPP-1-2019-1-DE-SPO-SCP)



Co-funded by the
Erasmus+ Programme
of the European Union

About PAYAMOS

Youngsters are no exception to **problems of physical health**, such as obesity, that stem from physical inactivity. Less than 20% of 11- to 17-year-olds meet the World Health Organization's daily recommendation for daily physical activity, and similar rates have been reported in younger children too. With **physical activity declining in Europe**, these issues are becoming even more pressing, and policymakers are desperate for solutions.

One of the reasons attributed to physical inactivity among youth is passive mobility. Many youngsters are driven to and from school by car. **Walking and cycling to school** are alternatives that hold massive potential, benefiting not only the youth themselves but their environment too.

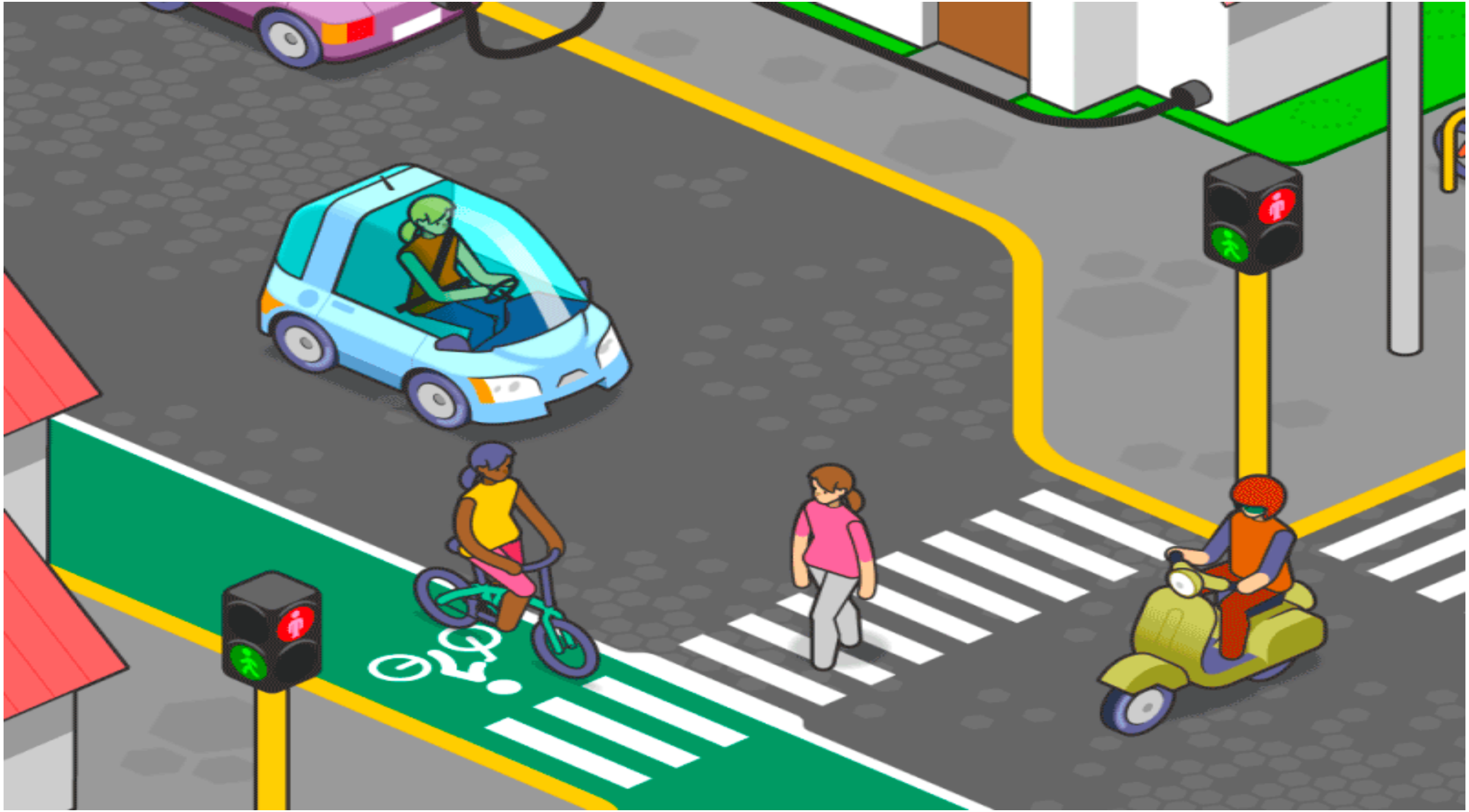
PAYAMOS is an **Erasmus Plus Sport Collaborative partnership between** Germany, Italy, Greece, Netherlands, Croatia, Turkey and Poland to promote physical activity and active mobility among young people. For more information on the project visit http://payamos.myerasmus.net/

Co-funded by the
Erasmus+ Programme
of the European Union

Interventions to consider

Calm traffic 

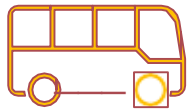
The traffic that youth encounter walking or cycling to school can greatly hinder the uptake of active mobility, even more so in cases of obesity and low income. Consider implementing strategies like **lowering speed limits** around schools, **improving street connectivity**, **temporarily restricting motor traffic** at school gates at drop-off or pick-up times, or **transforming streets for shared use** of pedestrians, cyclists, and drivers. These tactics can improve actual safety, reducing the number of injuries and fatalities, while also enhancing perceptions of safety for both youth and their parents. To illustrate, lowering the speed limit in areas of Bristol, UK was associated with a rise in walking (1% to 21%) and cycling (4% to 22%).



Build parental awareness

A lack of parental support can prevent children and teenagers from walking or cycling to school. The **face-to-face engagement and education** of parents can help address their perceptions and increase their knowledge about the benefits of active mobility as well as practicalities such as infrastructure networks, making cycling and walking a more viable option. In the case of children, who are less independent and less concerned about image than teenagers, **involving parents in initiatives** promoting active travel such as cycling training, walking school buses, or even one-off promotional events like family bicycle rides can help improve attitudes and secure buy-in.

Co-funded by the
Erasmus+ Programme
of the European Union

Ensure access to public transport 

In cases where distances between schools and homes are too large to expect a one-to-one shift from driving to cycling or walking, ensuring widespread access to public transport becomes ever more important. Not only does this mean improving public transport **coverage and service frequency**, but also enhancing the **connectivity between public transport and other modes** – for example, by providing **bicycle racks** on metros and ensuring the availability of **bicycle sharing docking stations and bicycle lanes** around stations and schools. It is crucial that children and teenagers are also made to feel safe on public transport, that they can afford it, and that information is provided in an understandable way.


SKOLEBUSS

Co-funded by the
Erasmus+ Programme
of the European Union

Promote community-based initiatives

Social support can be instrumental in getting youth to experiment with new behaviors, build their confidence, and create strong habits. For children, **walking school buses or bicycle trains** on a set route with adult supervision have been shown to be effective. To illustrate, schools with such walking and cycling schemes have seen increases in moderate-to-vigorous physical activity by 7 and 22 minutes respectively, in addition to improvements in road safety skills and attitudes. For teenagers, the benefits of access to cycling or walking groups go even further; they can be a good way for teenagers to **take ownership** over issues of active mobility and public health and to **normalize the image of walking and cycling** among their peers, making it *cool*.

Co-funded by the
Erasmus+ Programme
of the European Union

Benefits of active mobility

Cardiovascular fitness and reduce obesity

Cognitive performance and spatial awareness

Independence, positive emotions, and social inclusion

Habits that carry on into adulthood

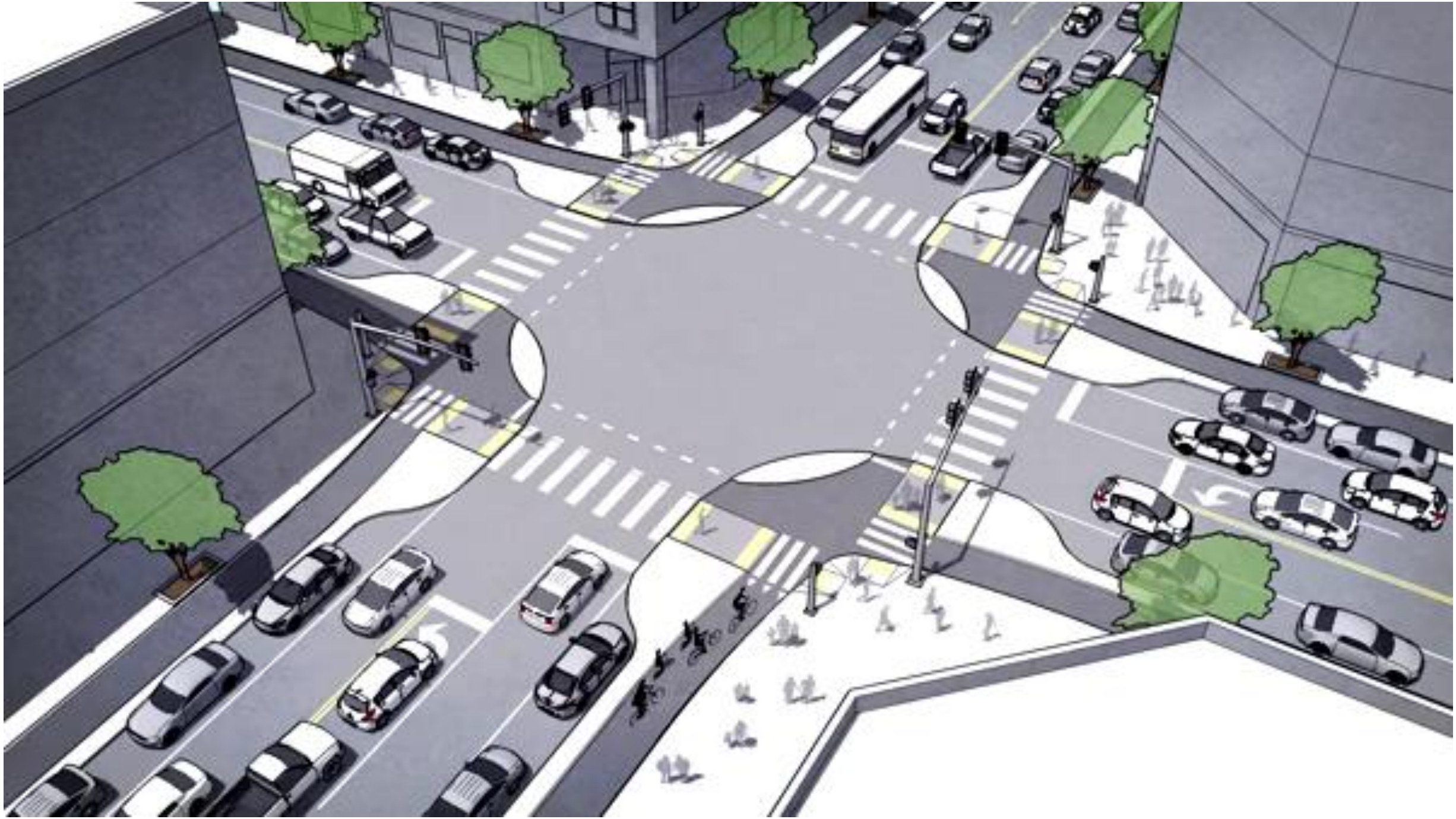
Less traffic and air pollution

Co-funded by the
Erasmus+ Programme
of the European Union

Barriers to active mobility

Within our project several built environment characteristics were shown to be linked to positive physical health outcomes of children, making them worthy to consider in promoting active school travel.

- **Higher number of intersections**
- **Lower distances to school**
- **Greater street connectivity**
- **More access to public transport**



Co-funded by the
Erasmus+ Programme
of the European Union

500 million cases of chronic diseases due to lack of exercise.

Countries may be planning policies to support physical activity, but only 40% are working and 28% are not funded.

Nearly 500 million people will develop heart disease, obesity, diabetes or other non-communicable diseases due to a lack of physical activity during the decade 2020-2030, burdening health systems worldwide with an additional 27 billion. Dol. annually if governments do not take their measurements to encourage the physical activity of their population.

This highlights World Health Organization report on physical activity, which includes data from 194 countries on government programs and recommendations to increase the physical activity of the population at all ages, but also depending on the exercise capacity of the population.

Co-funded by the
Erasmus+ Programme
of the European Union

According to the WHO report:

- Just over 40% of countries have standards for road design to make walking and cycling safer.

The WHO Global Action Plan on Physical Activity 2018-2030, aimed at enhancing physical activity in countries, had included 20 policy recommendations addressing the creation of safer roads to improve transportation, **the creation of more programmes for physical activity at key points such as schools,** primary health care facilities and workplaces.

E.Γ.Β.Ε.
1954

PAYAMOS

Co-funded by the
Erasmus+ Programme
of the European Union

Contemporary Lifestyles

Co-funded by the Erasmus+ Programme of the European Union

"Sitting Disease"

One in four American adults spend more than eight hours a day sitting

A sedentary lifestyle increases death rate by 71%

The US ranks 143 out of 168 Countries in Physical Fitness

Women are more likely to be Physically Inactive than Men

4. 6% of Deaths Globally are linked to Physical Inactivity

People who sit for 30 minutes or less at a time have a 55% lower risk of death compared to those who sit longer

Cardiovascular disease risk goes up by 147% for people with high levels of sedentary behavior

Sedentary behavior increases the risk of some types of cancer by up to 66%

Sitting for long periods of time is linked to a 112% increase in the risk of diabetes

People who sit for more than 7 hours per day or more are much more likely to develop depression, dementia and Alzheimer's

Since 1950, sedentary jobs have increased by 83%

Co-funded by the
Erasmus+ Programme
of the European Union

One in four American adults spend more than eight hours a day sitting

According to the Centers for Disease Control and Prevention (CDC), 1 in 4 Americans sit for more than **8** hours a day. A summary of the findings:

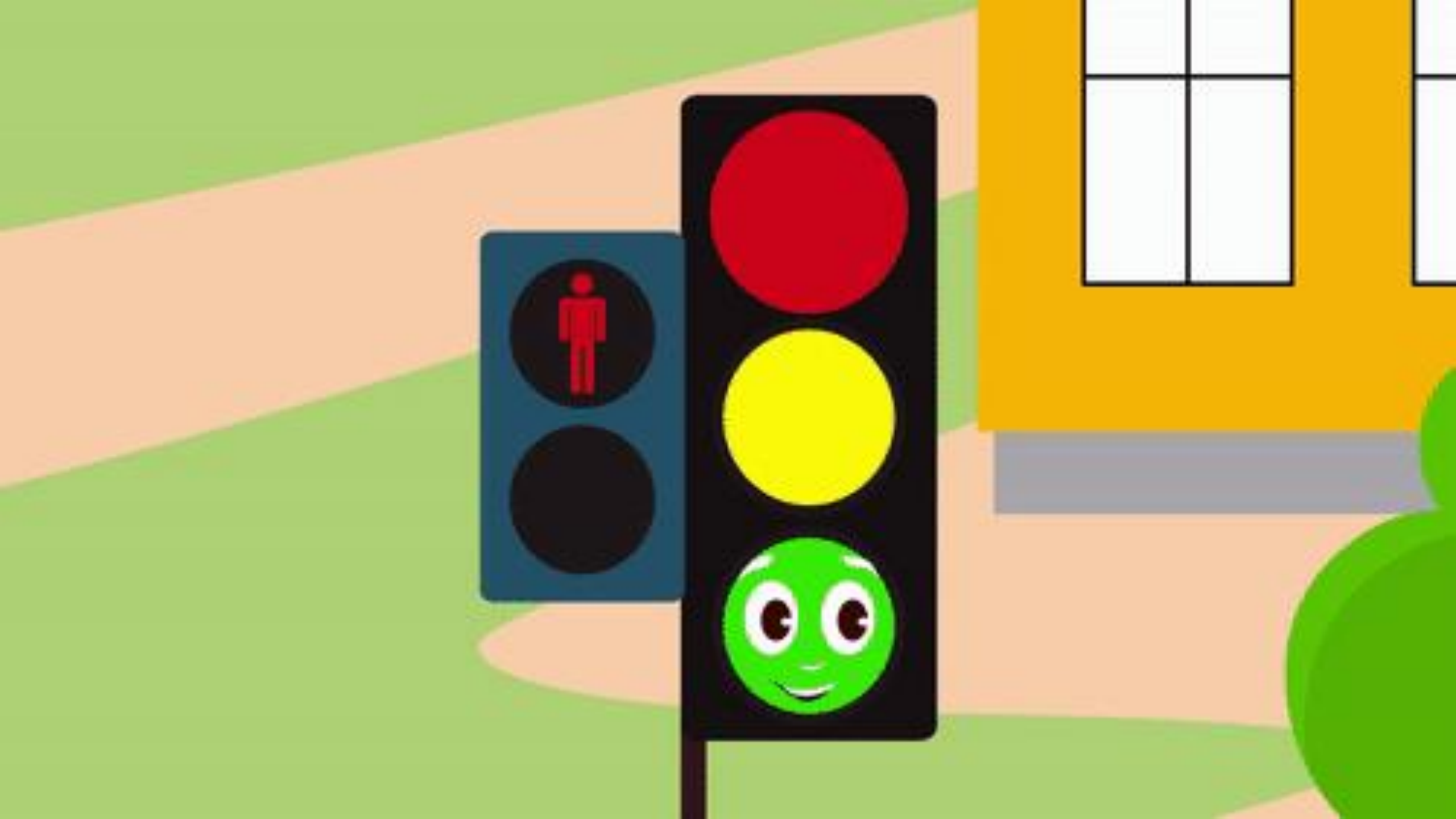
- 25 % of Americans spend more than 8 hours a day sitting.
- 44% report doing no moderate to vigorous physical activity at all weekly.
- 11% spend 8 hours or more a day sitting whilst doing little leisure-time physical activity.
- Only 4% spend less than 4 hours a day sitting while being active as well.

Co-funded by the
Erasmus+ Programme
of the European Union

Physical activity levels have dropped in UK

Physical activity levels have dropped with less than 40% of men and 28% of women in England (NHS Information Centre 2008) not meeting UK Government guidelines of 30 min or more of moderate or vigorous activity on at least 5 days per week.

- The percentage of children aged 5–10 years who walked to school, during 1985–1986 (67%) to figures collated in 2006 (52%).
- The percentage of primary school children travelling by car increased from 22 to 41% during the equivalent period.
- In the UK, the distance walked per year by each individual has fallen from 410 km /year in 1975–76 to 323 km /year in 2006.

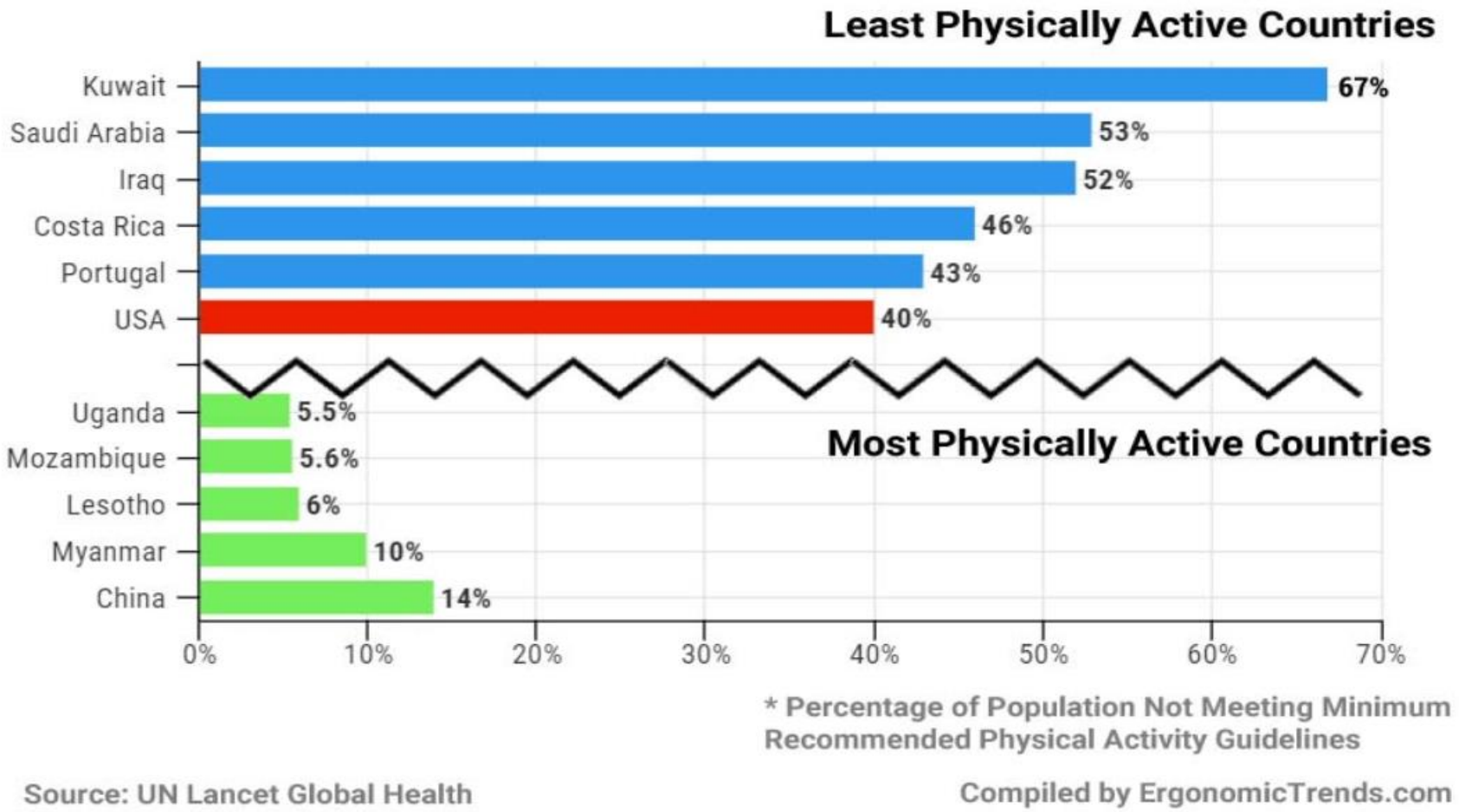


Co-funded by the
Erasmus+ Programme
of the European Union

A sedentary lifestyle increases death rate by 71%

- A study with 184,190 participants reported that people who spent more than 6 hours per day sitting with low levels of physical activity have a 71% increase in mortality rate.
- Even more alarmly, another comprehensive study showed that even with 4-7 hours of moderate to vigorous exercise weekly, sitting for 5-6 hours a day watching TV still increases mortality rate by 50%.
- The takeaway is that physically activity does not completely offset the negative effects of a sedentary lifestyle centered around sitting.

Co-funded by the
Erasmus+ Programme
of the European Union



https://doi.org/10.1016/S2214-109X(18)30357-7

Co-funded by the
Erasmus+ Programme
of the European Union

Women are more likely to be Physical Inactive than Men

- Women are more likely to lack sufficient physical activity compared to men, according to an extensive UN report.

- In 159 of 168 countries surveyed, the prevalence of insufficient physical activity was 10% or higher in women compared to men. In 9 countries, the difference is a startling 20% or higher.

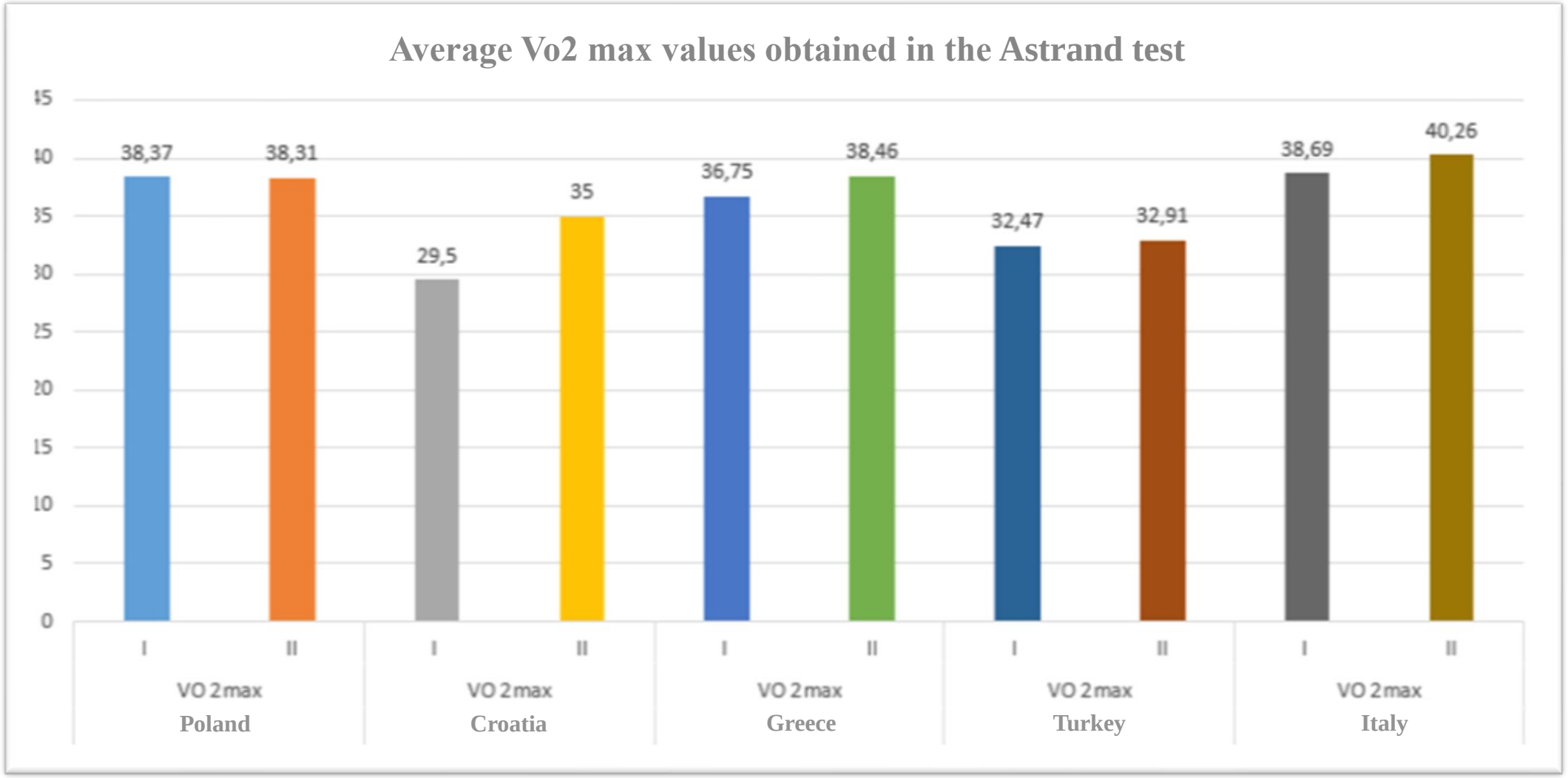
Co-funded by the
Erasmus+ Programme
of the European Union

Level of exercise (for fitness, sport or recreation) (%)

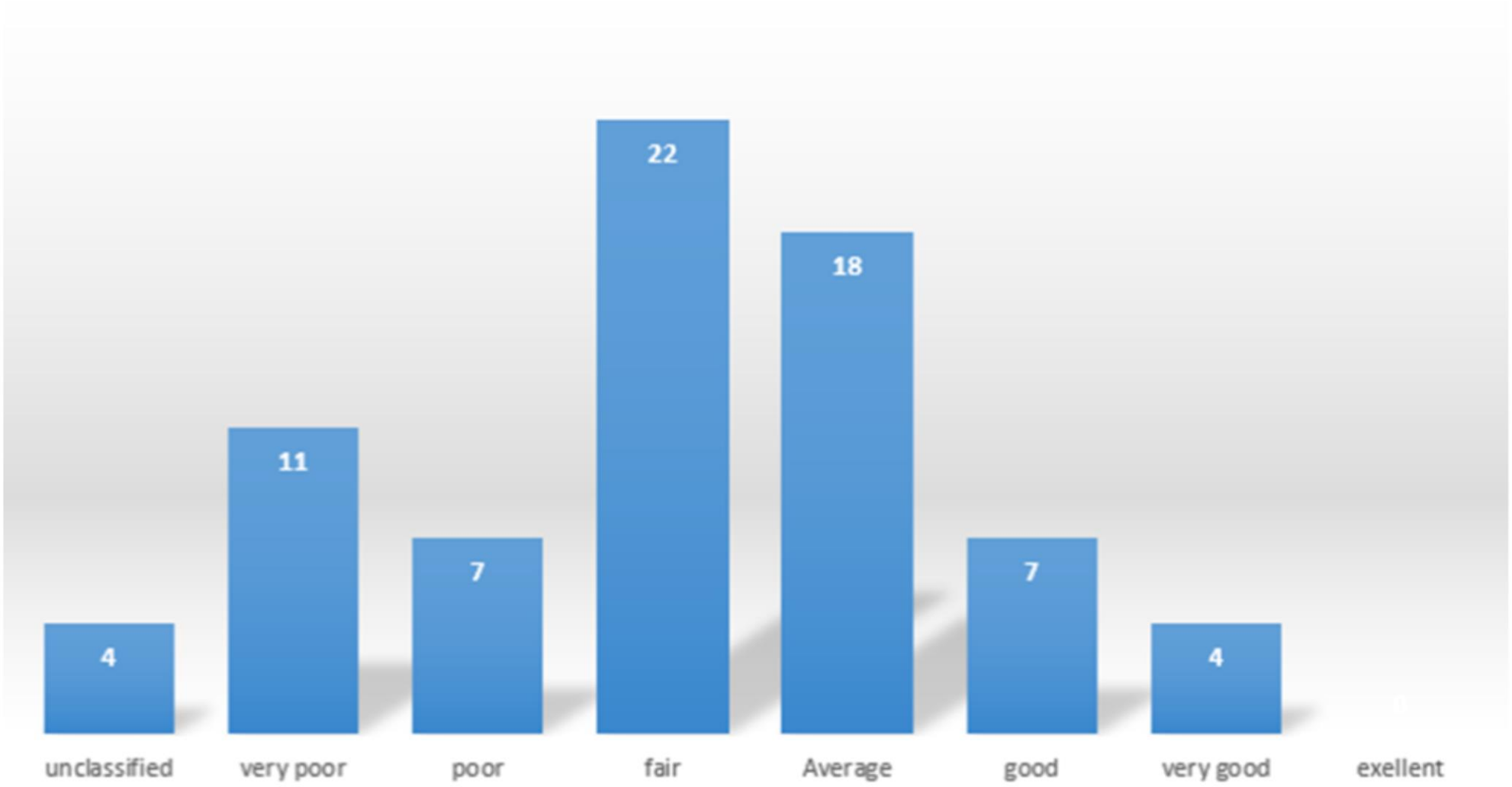
	15-17 years		18-24 years	
	Male	Female	Male	Female
No exercise	16	25	27	31
Low	22	31	26	36
Moderate	25	28	21	20
High	37	15	26	13

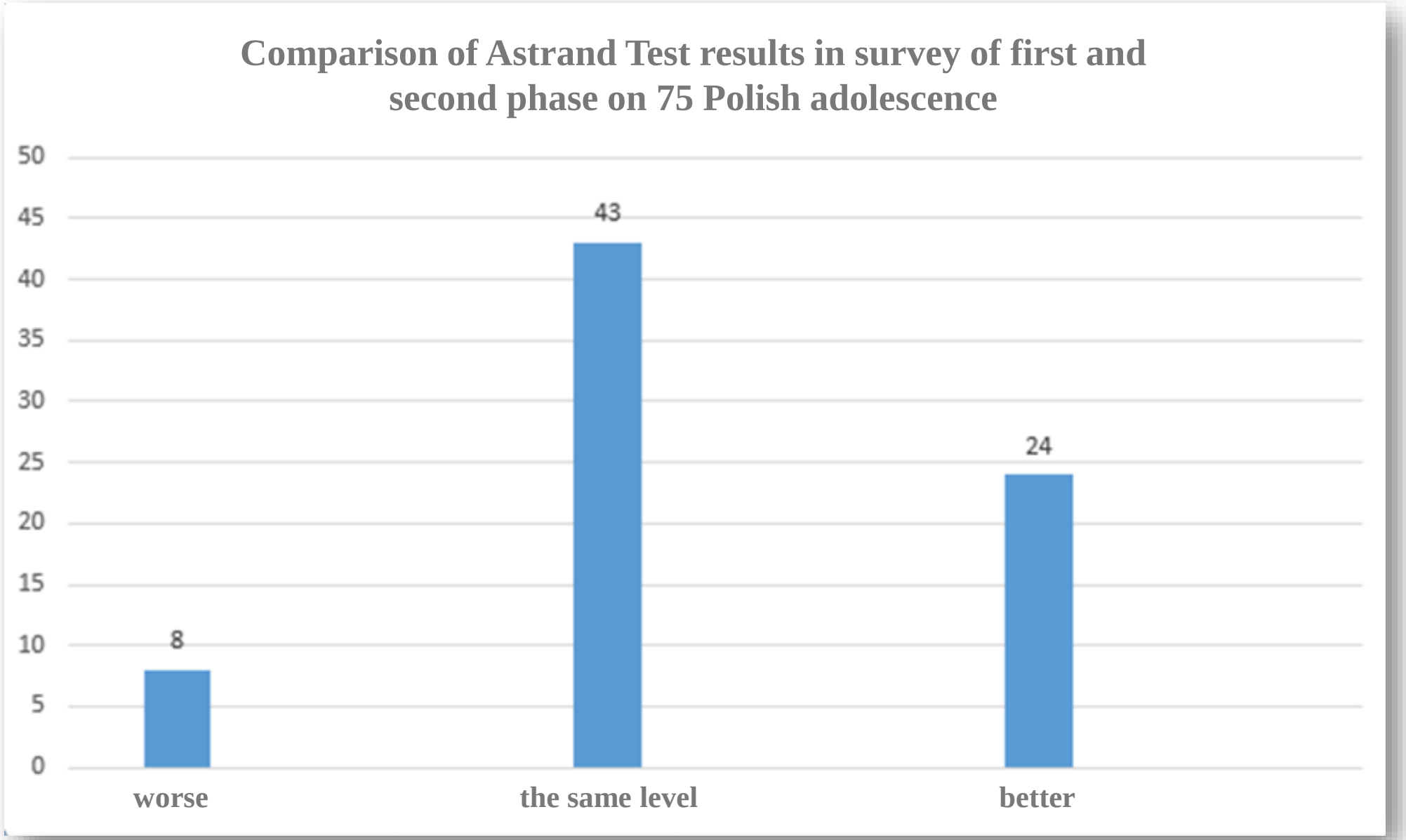
(Source: ABS, 2015)

Comparison of average values of VO2max achieved from Astrand Test in 5 countries



The level of aerobic efficiency from Astrand Test in surveys on 75 Polish adolescence




Comparison of Astrand Test results in survey of first and second phase on 75 Polish adolescence
50
45
40
35
30
25
20
15
10
5
0
8
43
24
worse
the same level
better

Co-funded by the
Erasmus+ Programme
of the European Union

So what are the risks of sitting for too long and living a sedentary lifestyle?

According to the WHO (World Health Organization), physical inactivity is the fourth leading risk factor for global mortality. It accounts for:

- 6% of deaths globally
- 22% of heart disease
- 22% of colon cancer
- 12% diabetes and hypertension

Co-funded by the
Erasmus+ Programme
of the European Union

People who sit for 30 minutes or less at a time have a 55% lower risk of death compared to those who sit longer

- The duration of sitting sessions can greatly influence the risk of premature death.
- People who sat in 30-minute stretches had a 55% lower death risk compared to those that sat for longer periods at a time.
- People that often sit at for more than 90 minutes at a time have a nearly two-fold greater risk of death.

Co-funded by the
Erasmus+ Programme
of the European Union

A sedentary lifestyle can cause premature death.

- One of the conditions most associated with lack of physical activity is heart disease.
- High levels of sedentary behavior increases the risk of cardiovascular disease by up to 147%.
- People who sit more than 10 hours daily have higher troponin levels.
- Obesity is another reason for high risk of cardiovascular disease is obesity. The more inactive people are, the harder it is to manage their weight (Patel et al., 2010).

Co-funded by the
Erasmus+ Programme
of the European Union

A sedentary lifestyle has been linked to:

- Subclinical cardiac injury
- risk of some types of cancer by up to 66%
- a 112% increase in the risk of diabetes

- Additionally, People who sit for more than 7 hours per day or more are much more likely to develop depression, dementia and Alzheimer's

Co-funded by the
Erasmus+ Programme
of the European Union

Since 1950, sedentary jobs have increased by 83%

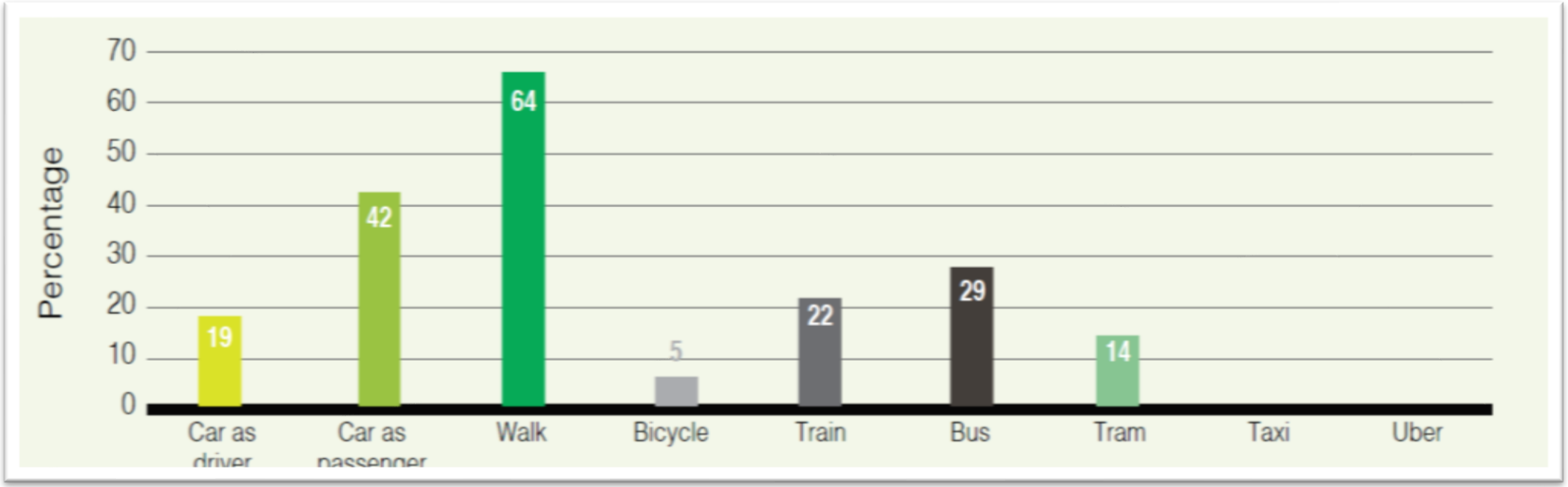
- Due to technology, **active jobs** are now either done by robots or made easier by automation. This has greatly contributed to the sedentary lifestyle and physical inactivity of the majority of people today.

- The **American Heart Association** reported that only **20%** of the current workforce possess physically active jobs.

- Sedentary jobs have seen an 83% increase since 1950.

Co-funded by the
Erasmus+ Programme
of the European Union

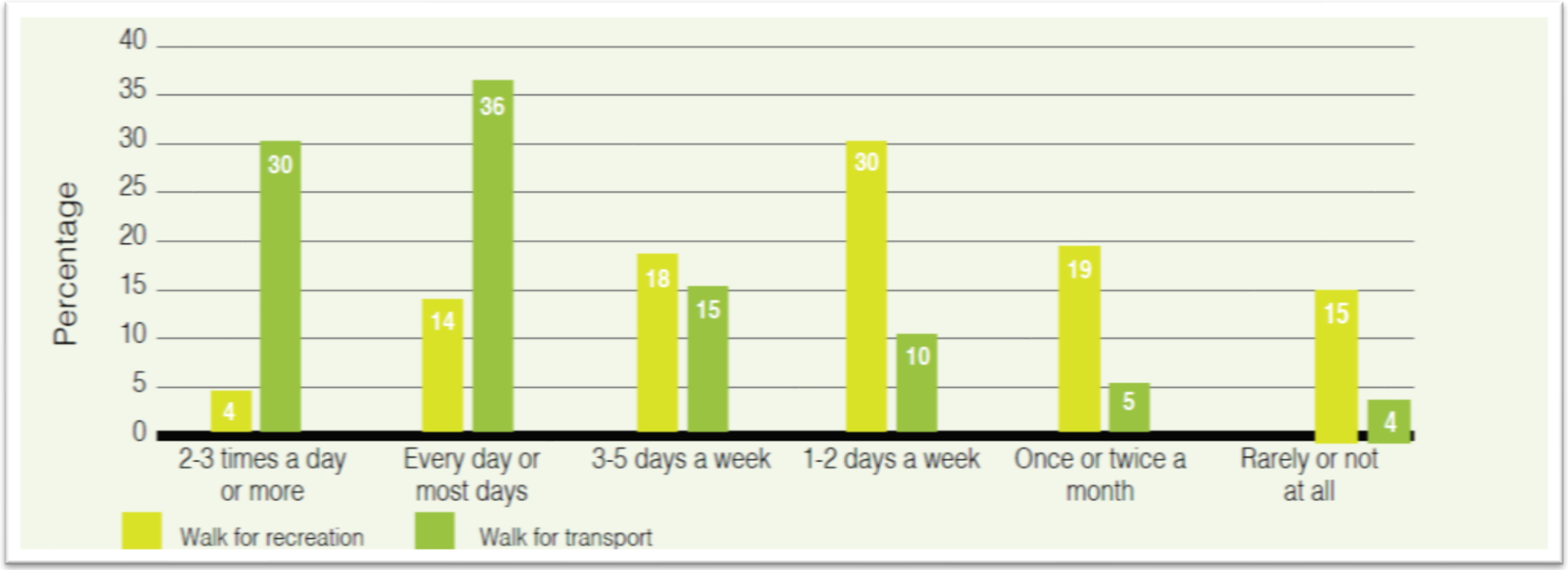
How do young people get around on most days?



Frequent use of travel modes ("2 or 3 times a day or more", plus "Every day or most days") (% of young people)

Co-funded by the
Erasmus+ Programme
of the European Union

Frequency of walking for recreation and transport



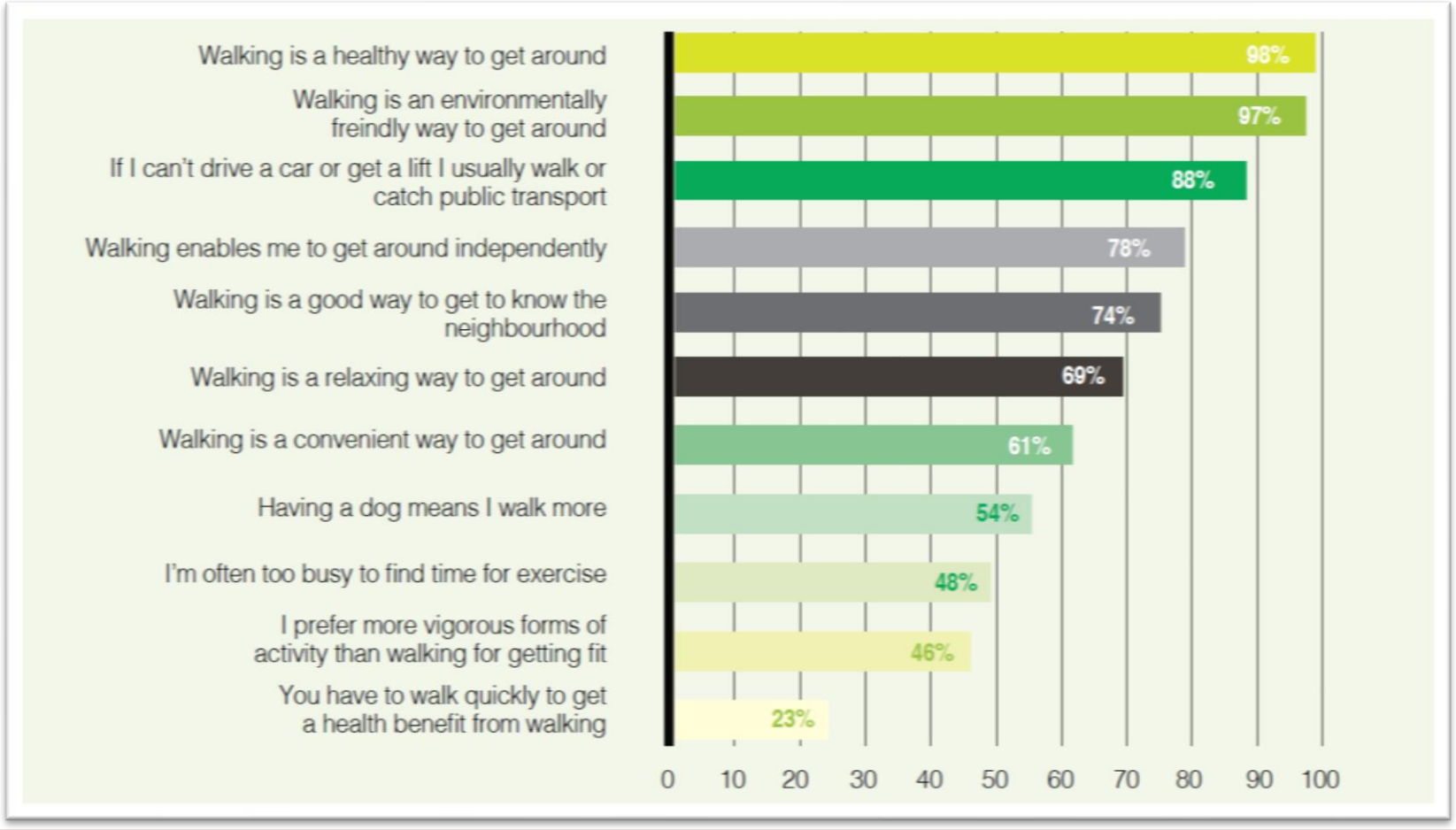
Frequency of walking for recreation and transport

Co-funded by the
Erasmus+ Programme
of the European Union

Young people's Attitude to walking

A research project by Garrard J, (2017), *Young people and walking. Victoria Walks, Melbourne*, **involved:**

- An online survey of 1089 people in Victoria aged 15 – 20 years. Three-quarters of young people who responded were female.

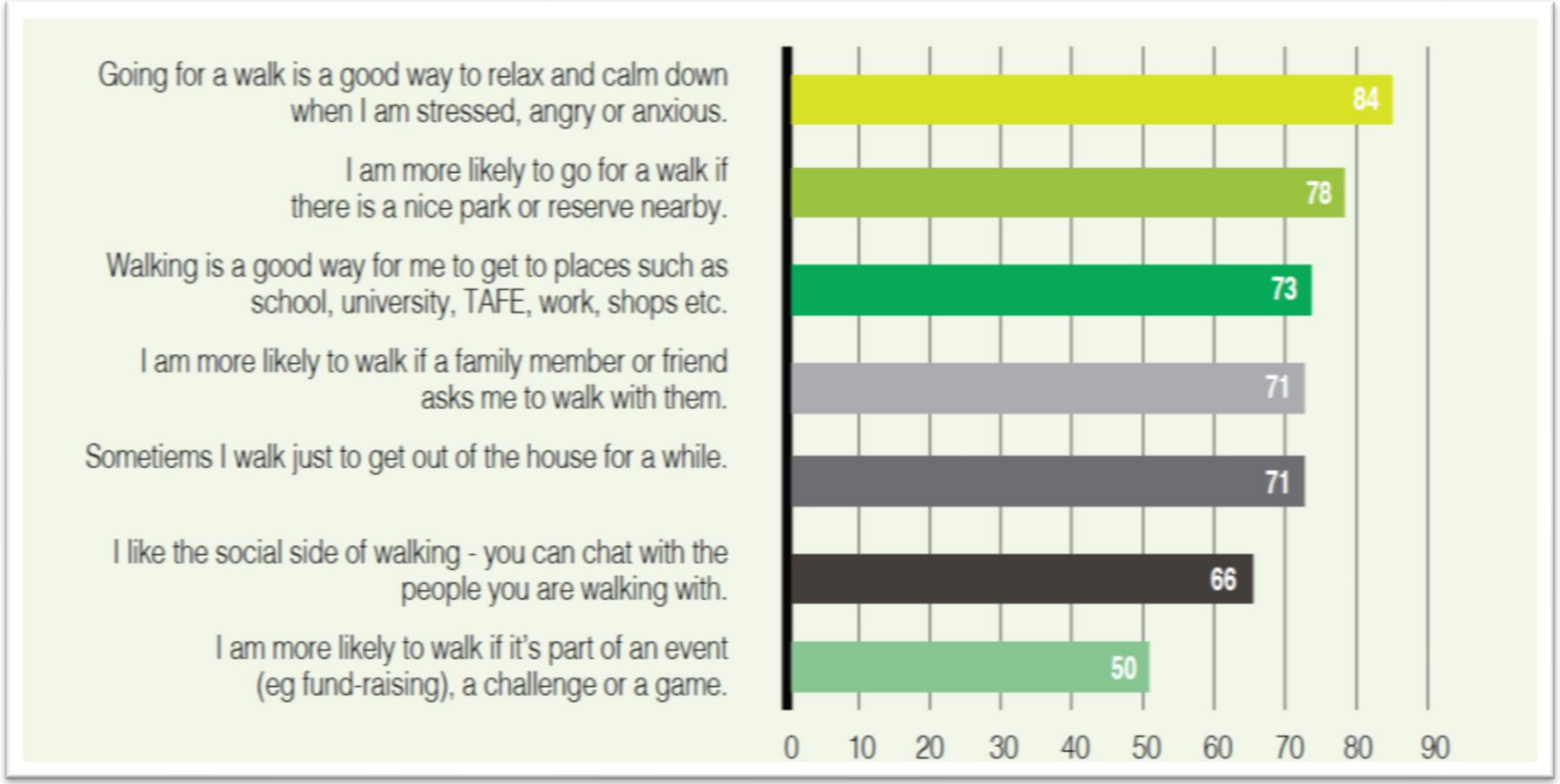


Co-funded by the
Erasmus+ Programme
of the European Union

Young people's Motivations for walking

A research project by Garrard J, (2017), *Young people and walking. Victoria Walks, Melbourne,* **involved:**

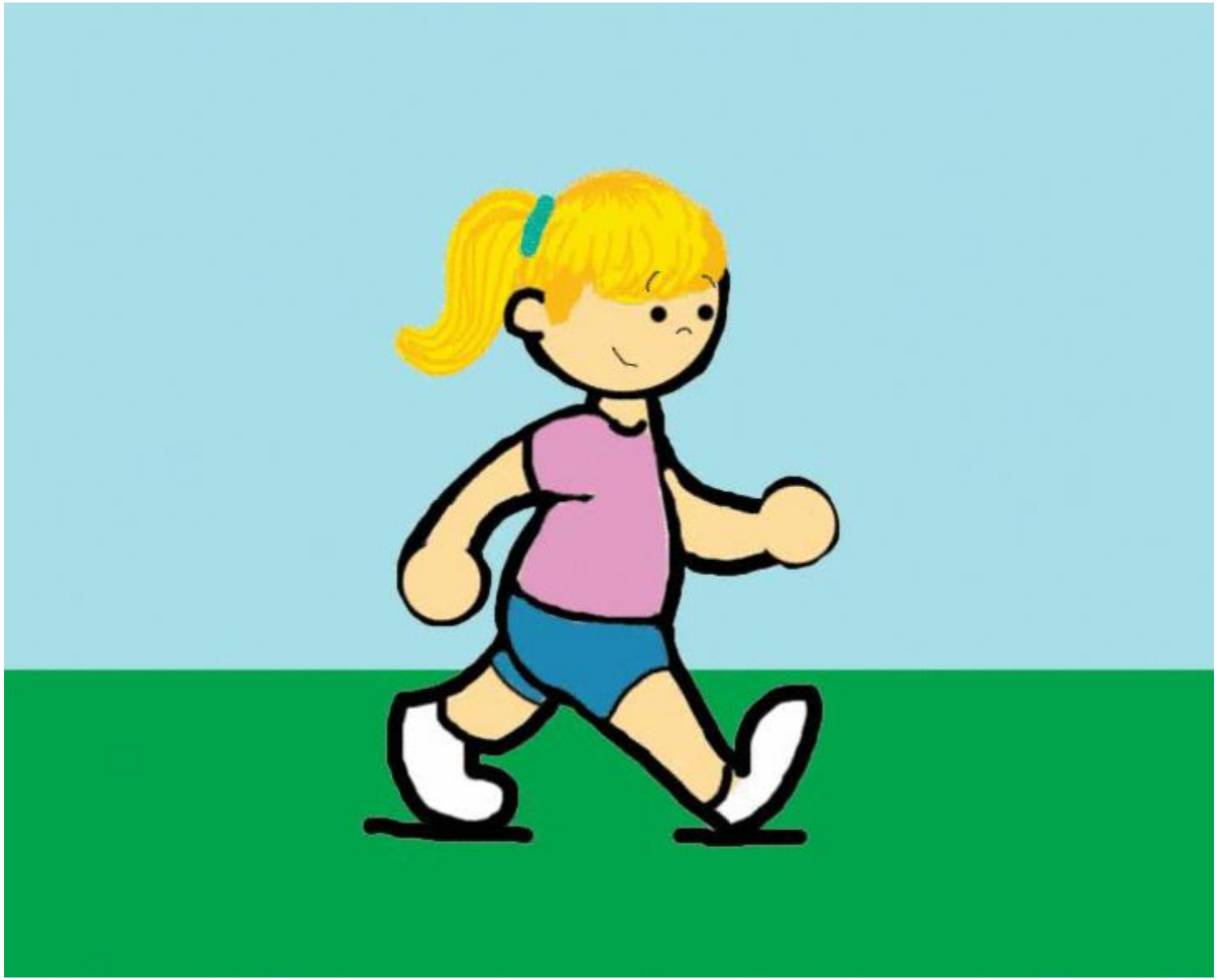
- An online survey of 1089 people in Victoria aged 15 – 20 years. Three-quarters of young people who responded were female.



E.Γ.Β.Ε.
1954

Co-funded by the
Erasmus+ Programme
of the European Union

THE BENEFITS OF WALKING

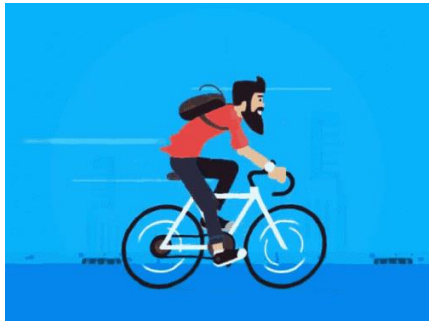


Co-funded by the
Erasmus+ Programme
of the European Union

Moving just 2 minutes every hour can decrease premature death risks by 33%.

- Offsetting the negative effects of prolonged sitting can start with just 2 minutes every hour.

- Just two minutes of physical activity for every hour of sitting can lower the risk of premature death by as much as 33% (stretching or walking).



Co-funded by the
Erasmus+ Programme
of the European Union

45 minutes of moderate exercise, such as brisk walking, a day can give us more and better years of life

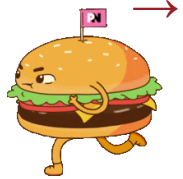
A new study, recently published in the prestigious international scientific journal Circulation, evaluated the association between time and intensity of long-term physical activity in leisure time and mortality from all causes.

Data from 116.221 people were analyzed and the correlation between time and intensity of physical activity was evaluated.

This study is very important, because it originates from a 30-year perspective of monitoring tens of thousands of people and demonstrates in simple terms that even 45 minutes of moderate exercise, such as brisk walking, a day can give us more and better years of life.

Co-funded by the
Erasmus+ Programme
of the European Union

→ **Students' Body Mass Index (BMI) has correlations with age, income, number of intersections to school, travel distance, road connectivity, accessibility to public transport and open/green spaces in eight European cities (Masoumi et al., 2017)**



→ Schools can contribute to physical activity with an appropriate environment for intervention programmes to promote physical activity and school attendance can provide opportunities for active mobility (walking and cycling) for children.

→ In addition to school closures, social distancing, quarantine have increased sedentary behavior among children and adolescents. The physical activity and mental health of children and adolescents are associated with healthy behaviors, including cardiovascular health, improvement of motor skills, psychological health, social interaction, bone density and body mass index (BMI). The COVID-19 lockdown, including social distancing and distance learning, has caused a decline in physical education, sports, and school-related physical activities, such as active mobility.


nick

→ **Overweight and obesity are associated with serious illnesses and public health problems. Obesity comes from complex interactions between various factors, including diet, physical activity and psychological health, social and cultural issues, and the built environment. This work confirms that there is a correlation between the characteristics of the built environment and obesity among students.**

Co-funded by the
Erasmus+ Programme
of the European Union

The myth that weight will become... Hight

- "Prevention, family, exercise and proper nutrition play a key role in reducing obesity."
- By the age of 5, children are modelled on parents, then teachers and teenage friends.
- In school canteens there should be foods with great nutritional value and not... 'rubbish'.
- Thereshould be exercise and healthy eating programmes within an education system.
- As far as nutrition is concerned, the ban is not proposed because it creates more interest in useless and burdensome foods (snacks, etc.).
- Better product labelling is important to recognize and choose products of high nutritional value.

Co-funded by the
Erasmus+ Programme
of the European Union

→ "The phenomenon of childhood obesity is global. The epidemiological data scare for the prospect and the... future. 1/3 of the population in 2030, more than 2.000.000.000 people will have the designation of obese. We must, especially for children, reversethe situation that we can do to overweight people before they become obese."

Co-funded by the
Erasmus+ Programme
of the European Union

→The effects of obesity on the psyche of children are significant (high suicide rates of children) in the reduction of self-esteem, in the bullying they receive in a school or friendly environment. At the same time, orthopedic, cardiac, dermatological, gynecological and other problems are recorded from a very early stage, which are also preventable.

E.Ι.Β.Ε.
1954

PAYAMOS

Co-funded by the
Erasmus+ Programme
of the European Union

To walk or to run?

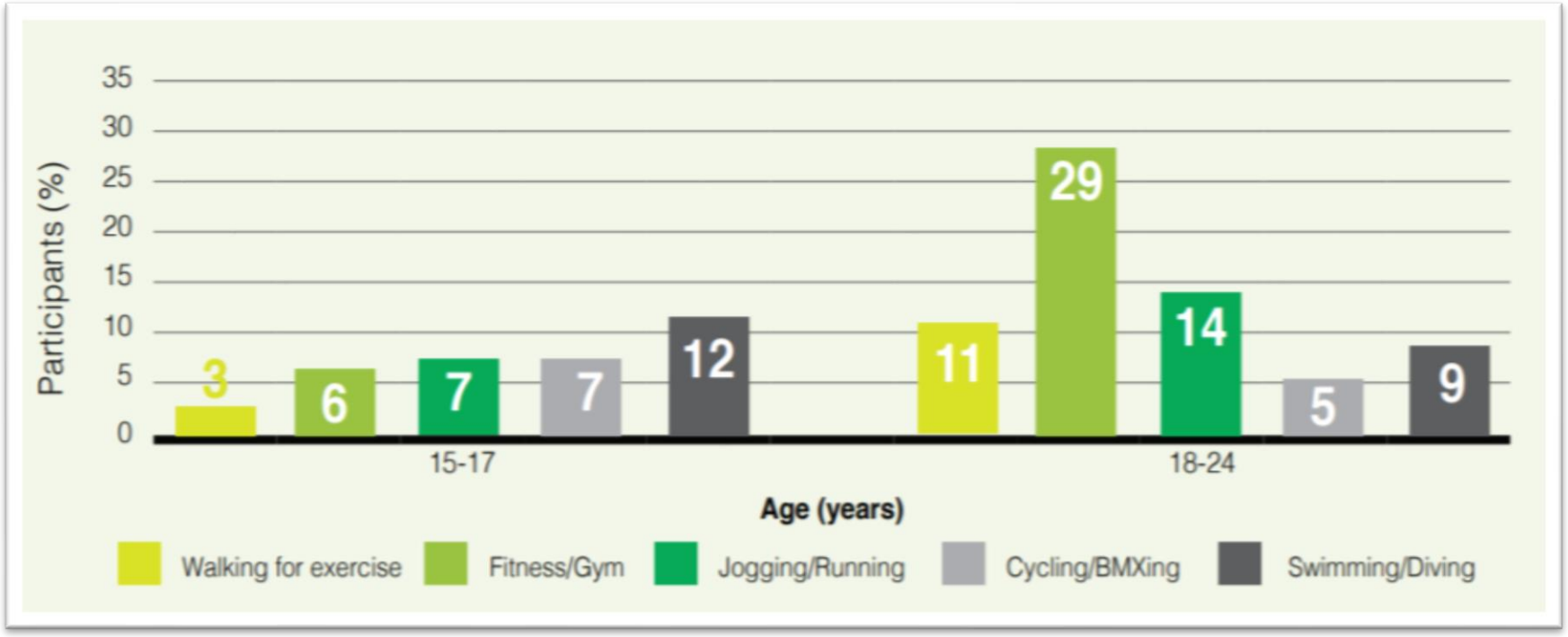
Co-funded by the
Erasmus+ Programme
of the European Union

To walk or to run?

- It doesn't matter as long as the activity is aerobic – in that it raises the heart rate and gets people moving and sweating for a sustained period.

Co-funded by the
Erasmus+ Programme
of the European Union

Walking as form of leisure-related physical activity



Participation[1] in the top five forms of sport and physical recreation, Victoria

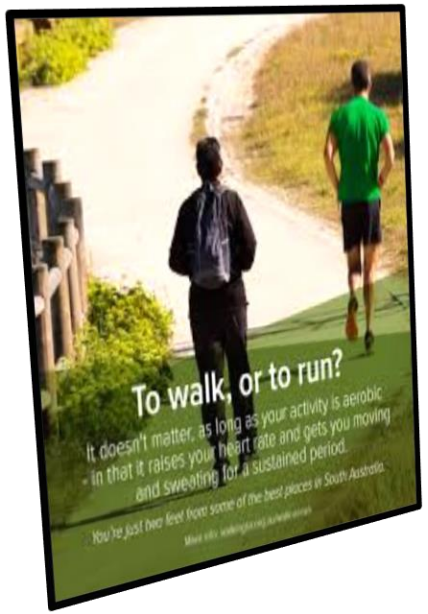
(Source: Australian Bureau of Statistics, 2012)

E.Ι.Β.Ε.
1954

PAYAMOS

Co-funded by the
Erasmus+ Programme
of the European Union

Walking and health



Running is the poster boy for aerobic exercise.

It really is marvelous for fitness and health. But it's not the only way to exercise for health.

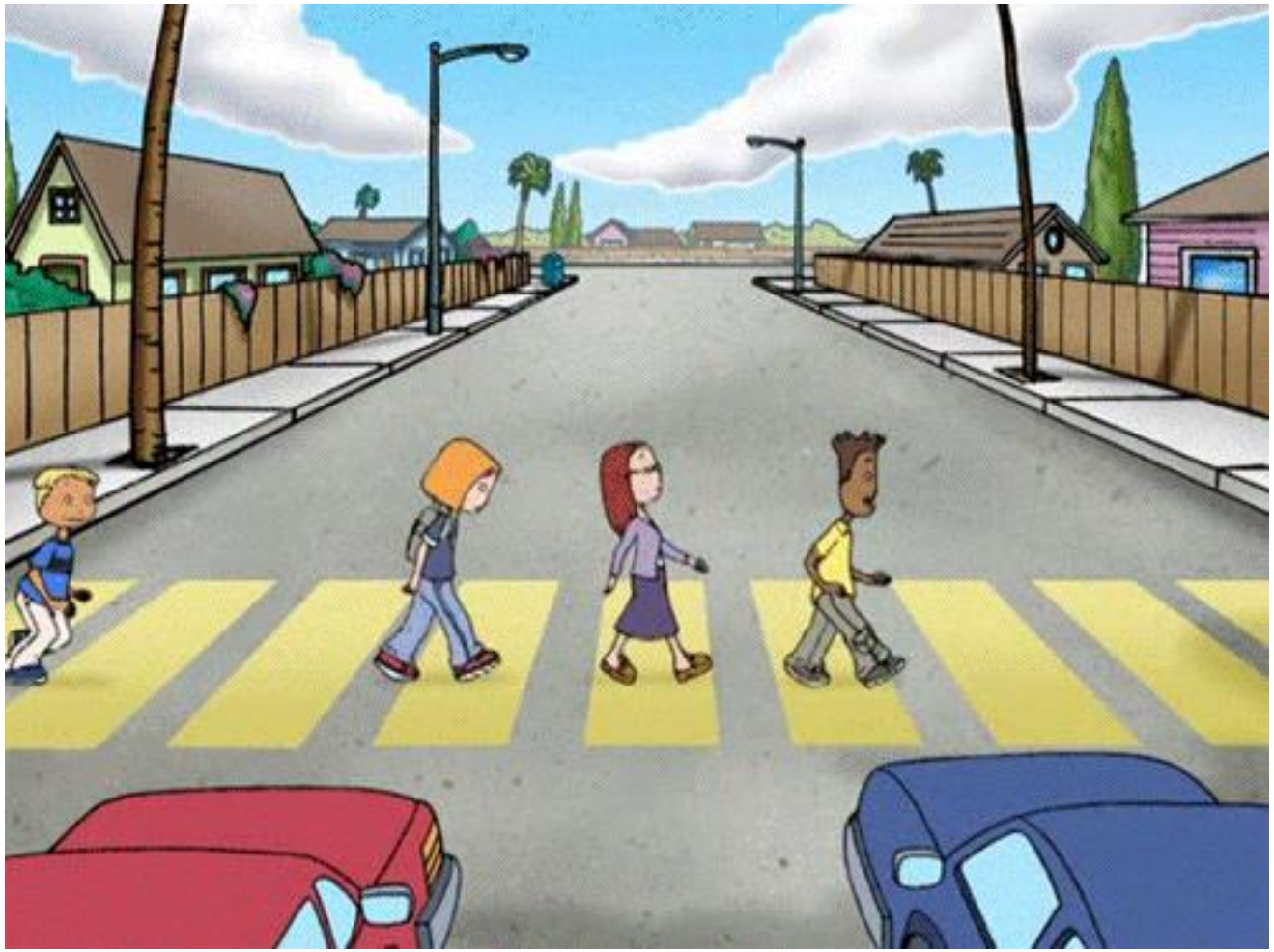
In fact, though, moderate exercise is excellent for health — and walking is the poster boy for moderate exercise.

Why walk? Why not!

Co-funded by the
Erasmus+ Programme
of the European Union

Why walk? Why not!

- The ***Physical Activity Guidelines for Americans*** recommend that adults get at least 150 minutes of moderate-intensity aerobic physical activity or 75 minutes of vigorous-intensity physical activity, or an equivalent combination each week. The guidelines also recommend that children and adolescents be active for at least 60 minutes every day. Following these guidelines can contribute to overall health and decrease the risk of chronic diseases such as heart disease, cancer or diabetes.



Co-funded by the
Erasmus+ Programme
of the European Union

Why walk? Why not! (cont.)

- Walking is a great way to get the physical activity needed to obtain health benefits. Walking does not require any special skills. It also does not require a gym membership or expensive equipment.

Co-funded by the
Erasmus+ Programme
of the European Union

Walking is the poster boy for moderate exercise

- Walking as a moderated-intensity physical activity, began to receive attention in the 1990s.

- The substantial health benefits can accrue from moderate-intensity physical activity (3-6 METs) of at least 30 min·d (Centers for Disease Control (CDC) and the American College of Sports Medicine ACSM, 1995).

- The CDC/ACSM recommendation also stated that **30** or **more** minutes of activity could be accumulated from multiple bouts, as long as each bout was 10 min or more.

Types of walking

Co-funded by the
Erasmus+ Programme
of the European Union

Types of walking

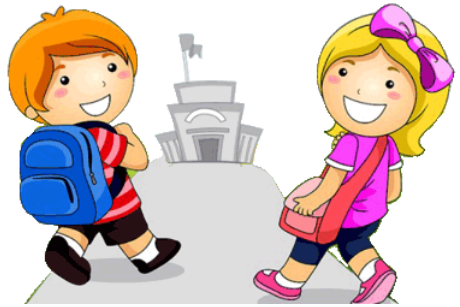
- Treadmill walking
- Mall walking
- Nature walks
- Hiking
- Nordic walking
- Power walking
- Park walking
- Race walking
- City walking

Co-funded by the
Erasmus+ Programme
of the European Union

Type of Walking

- Brisk walking at 3 to 4 mph for most adults.
- A minimum frequency ("most days of the week," at least 5 d·wk−1).
- A minimum duration each day (30 min).
- A minimum time for each activity bout (10 min).
- A minimum intensity (moderate intensity) *(Lee and Buchner 2008).*

Co-funded by the
Erasmus+ Programme
of the European Union



Why Walking;

- Walking is one of the least expensive and most broadly accessible forms of physical activity.
- It is rarely associated with physical injury and can easily be adopted by people of all ages, including those who have never participated in physical activity.
- Studies have shown that walking has higher levels of adherence than other forms of physical activity.

Co-funded by the
Erasmus+ Programme
of the European Union

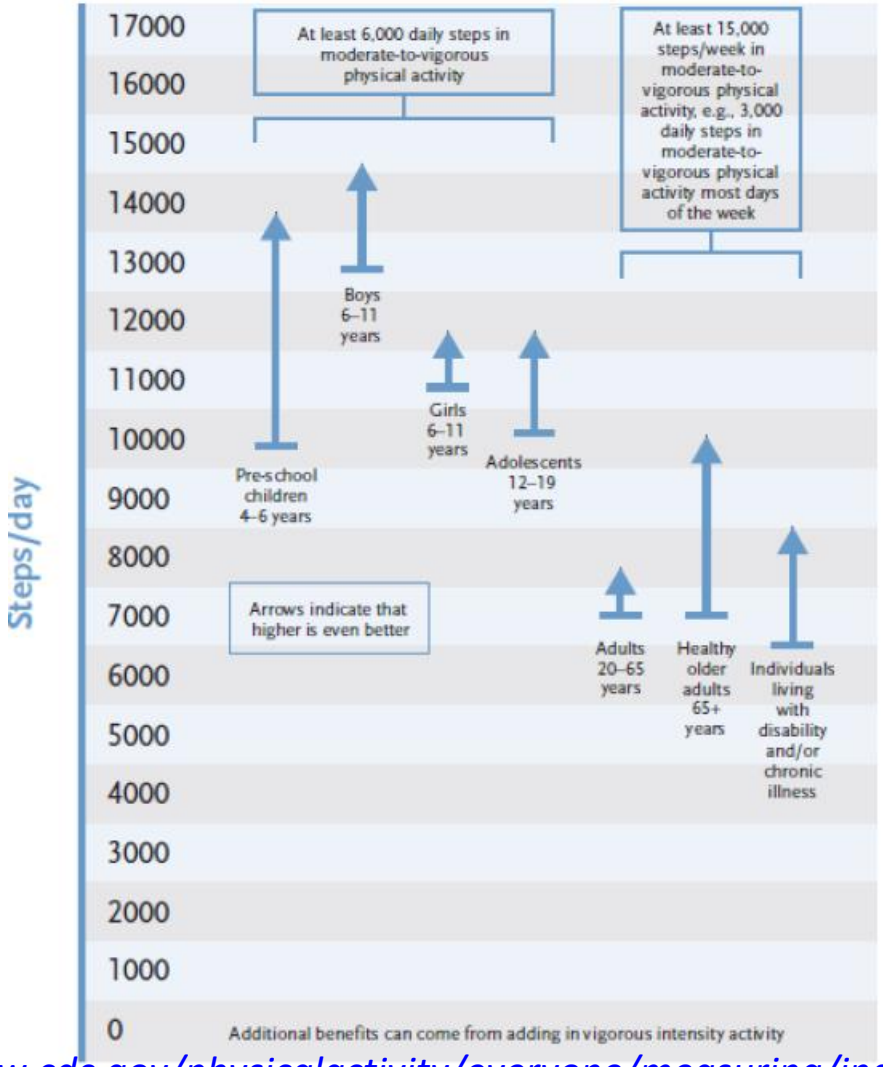
Does your route pass the walkability test?

- Do you have room to walk?
- Is it easy to cross streets?
- Do drivers behave well?
- Is it easy to follow safety rules, such as using crosswalks and walking on sidewalks or shoulders facing traffic?
- Is your walk pleasant and safe?

Co-funded by the Erasmus+ Programme of the European Union

How many steps per day are enough;

- Adults usually walk between 4,000 and 18,000 steps per day. Traditional rural communities, are at the upper end of this scale, while sedentary, obese adults would be at the lower end of the scale.
- Older adults and special populations (including individuals suffering from chronic conditions and disabilities), currently average between 2,000–9,000 steps/day, and 1,200–8,800 steps/day respectively.
- Children between the ages of 6 and 12 typically average between 10,000 and 16,000 steps per day, while adolescents only average approximately 8,000–9,000 steps per day.



http://www.cdc.gov/physicalactivity/everyone/measuring/index.html

Co-funded by the
Erasmus+ Programme
of the European Union

How active are you?

Researchers have also established pedometer-determined physical-activity thresholds for adults categorized by their activity level:

- < 2,500 steps/day (sedentary – **basal activity**)
- 2,500–4,999 steps/day (**limited activity**)
- 5,000–7,499 steps/day (**low active**)
- 7,500–9,999 steps/day (**somewhat active**)
- 10,000–12,499 steps/day (**active**)
- ≥12,500 steps/day (**highly active**)

The advice on walking depends on the age of the individual.

Co-funded by the Erasmus+ Programme of the European Union

Effect of walking on all-cause mortality

There is an association between walking and a reduction in deaths from all causes, ranging from 19–30 percent depending on the frequency and length of walking activities.

The most significant reduction in mortality was associated with walking 20km per week while a reduction of 19 per cent was associated with 2.5 hours of brisk walking per week.

While the usual recommendation for physical activity for adults is 30 minutes at least five times a week, the health benefits of brisk walking begin to be seen at levels well below this level.

a recent study of 400,000 people found that just **15 minutes** a day of **moderate exercise** (which includes brisk walking) can have significant health benefits, **adding up** to **three years** to **life expectancy**. Every additional 15 minutes of daily exercise reduced all-cause death rates by a further 4 per cent

Co-funded by the
Erasmus+ Programme
of the European Union

Effect of walking on (non-communicable diseases) NCDs

- Type 2 diabetes
- Cardiovascular health
- And other NCDs

Co-funded by the
Erasmus+ Programme
of the European Union

The impact of walking on mental health

Walking has been verified to:

- reduce physical symptoms of anxiety associated with minor stress;
- increase self-reported energy levels when older adults set their own pace;
- improve sleep quality;
- elevate affective response (e.g. pleasure), resulting in increased psychological well-being for individuals with type 2 diabetes;
- be associated with better cognitive performance at school;
- improve the cognitive functioning of older adults (compared to stretching and toning);
- improve cognitive performance and reduce cognitive decline among older people;
- increase the size of the hippocampus and prefrontal cortex, potentially beneficial for memory.

Co-funded by the
Erasmus+ Programme
of the European Union

The impact of walking on psychological health

The psychological benefits of walking have been found in social contexts with specific features:

- The outdoor environment (greenery and water), and walking has a greater affective and cognitive restorative affect for adults of poor mental health in rural settings.
- UK mental-health charity MIND ran a small study of ‘green exercise’ (physical activity outdoors), questioning people involved in gardening, conservation and cycling as well as walking groups. 90 per cent of those surveyed said that they feel that green exercise benefits their physical health – but an even higher proportion, 94 per cent, felt that it improves their mental health and psychological wellbeing.

Co-funded by the
Erasmus+ Programme
of the European Union

Walking in green space

- The environment plays an important role in facilitating physical activities and helping to address sedentary behaviors.
- Walking can serve many purposes including exercise, recreation, travel, companionship, relaxation and restoration.
- Walking in greenspaces may offer a more sustainable option, through both exposure to nature and participation in exercise.

E.Γ.Β.Ε. 1954

PAYAMOS

Co-funded by the Erasmus+ Programme of the European Union

Barriers to physical activity

WP6: Raising Awareness

Co-funded by the
Erasmus+ Programme
of the European Union

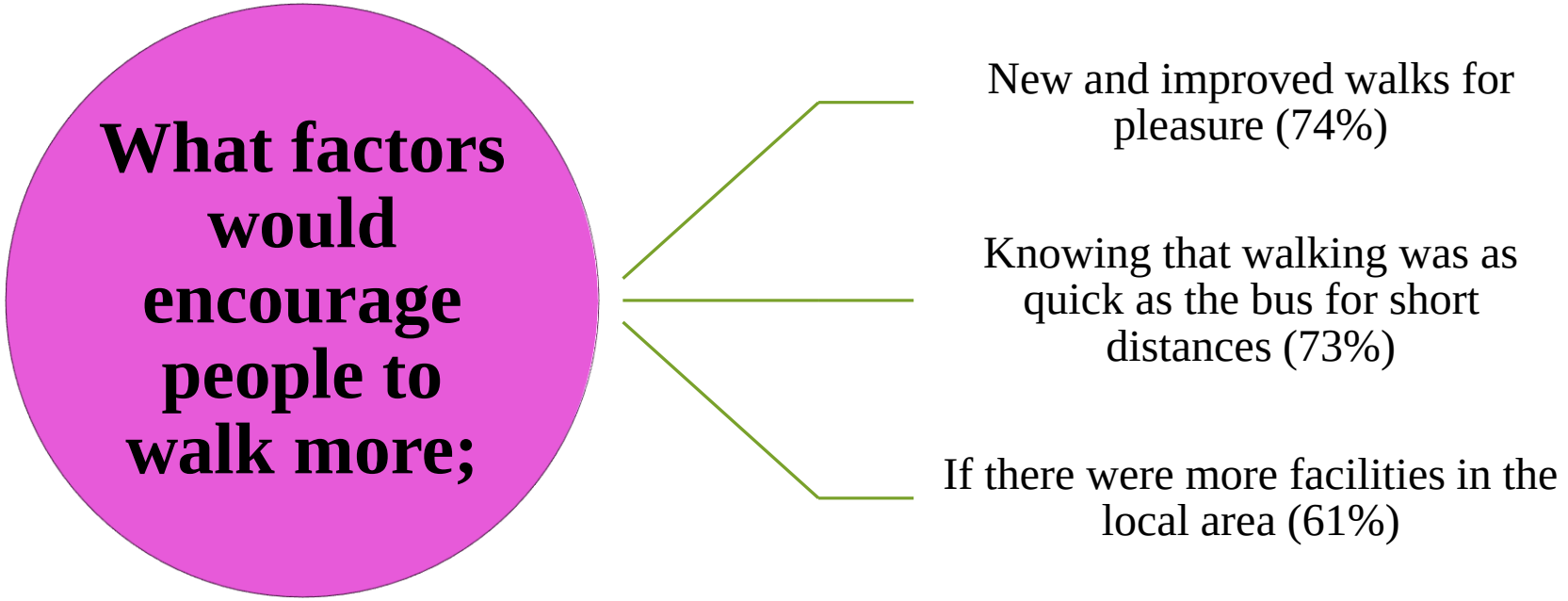
Barriers to physical activity

Using existing and providing effective walking programs have the potential to address barriers to physical activity and to improve public health among many communities, including diverse communities.

Barriers to Physical Activity (Lattimore, et al, 2011)	
Weather (too hot, too cold, too inclement)	Lack of social support
Neighborhood safety. Fear of crime	Lack of skills or experience with exercising
Fear of injury	Lack of available and clean restrooms
Lack of resources or accessibility to a gym or health club	

Co-funded by the Erasmus+ Programme of the European Union

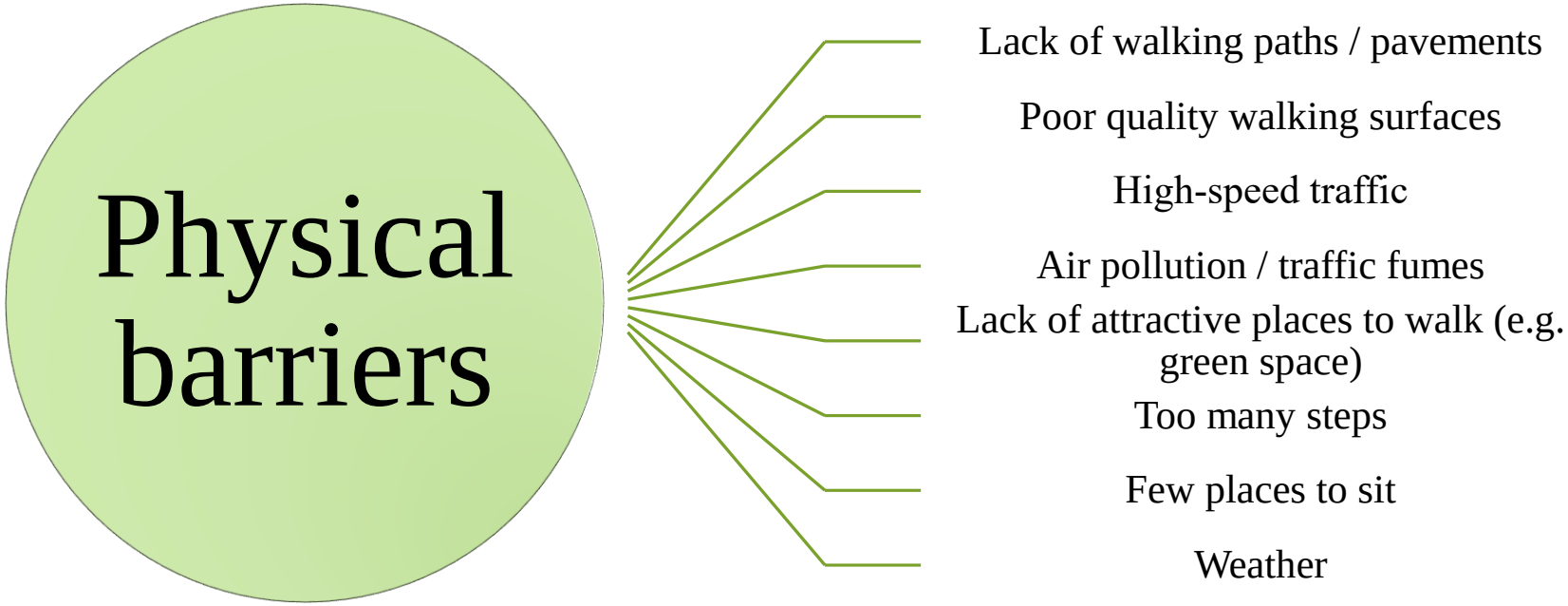
Overcoming barriers to walking



Transport for London, Attitudes to Walking 2011

Co-funded by the
Erasmus+ Programme
of the European Union

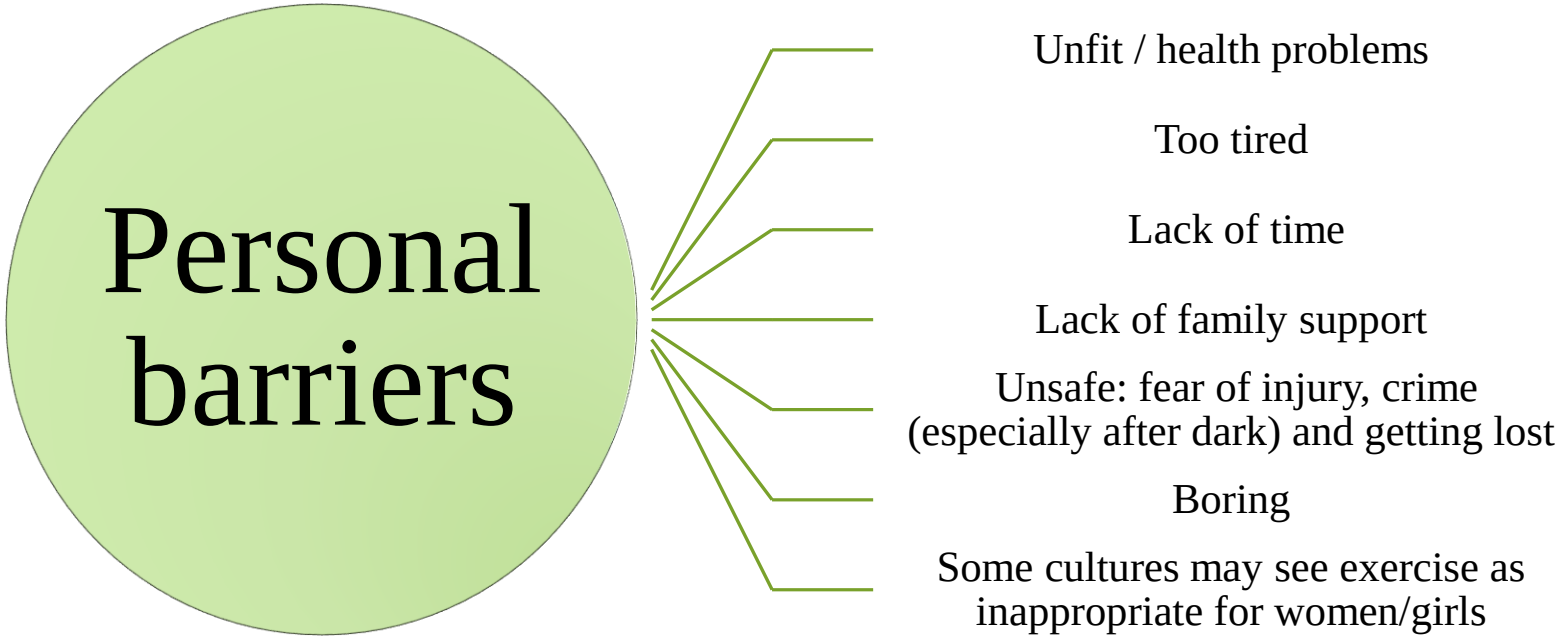
Physical Barriers to walking



Kopp, et al., (2012)

Co-funded by the
Erasmus+ Programme
of the European Union

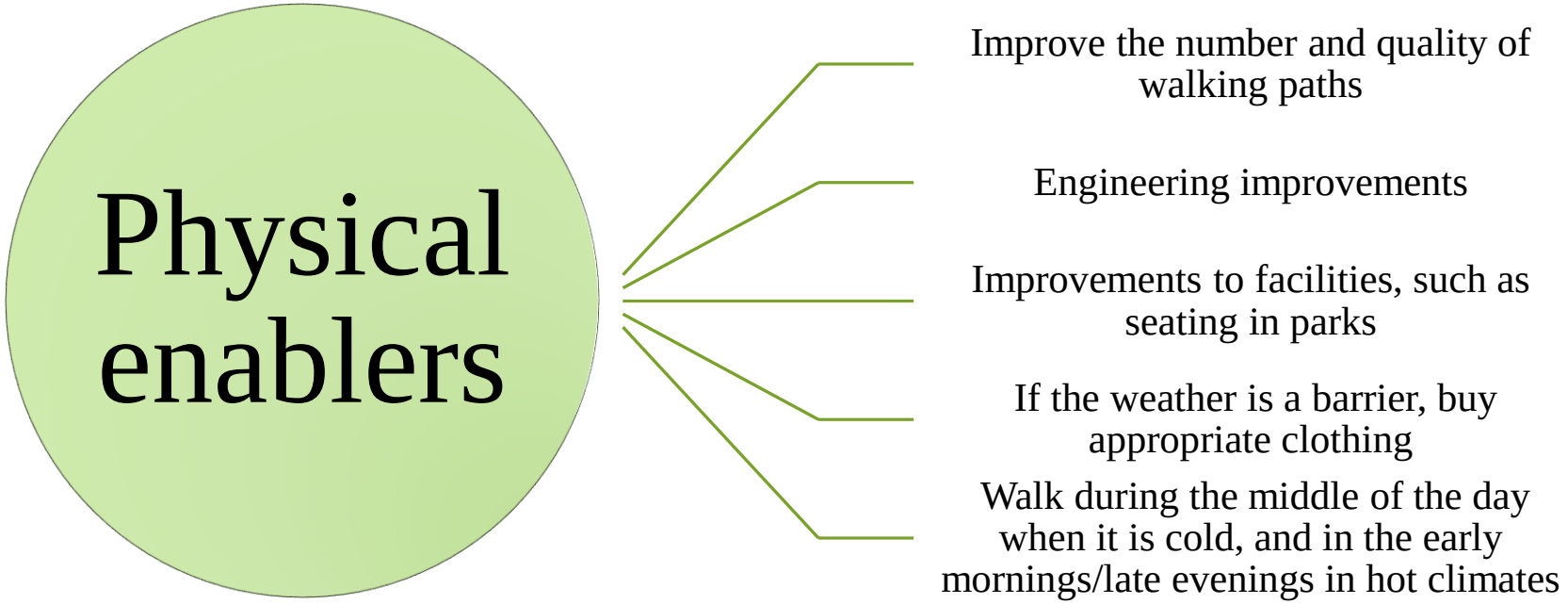
Personal barriers to walking



Kopp, et al., (2012)

Co-funded by the
Erasmus+ Programme
of the European Union

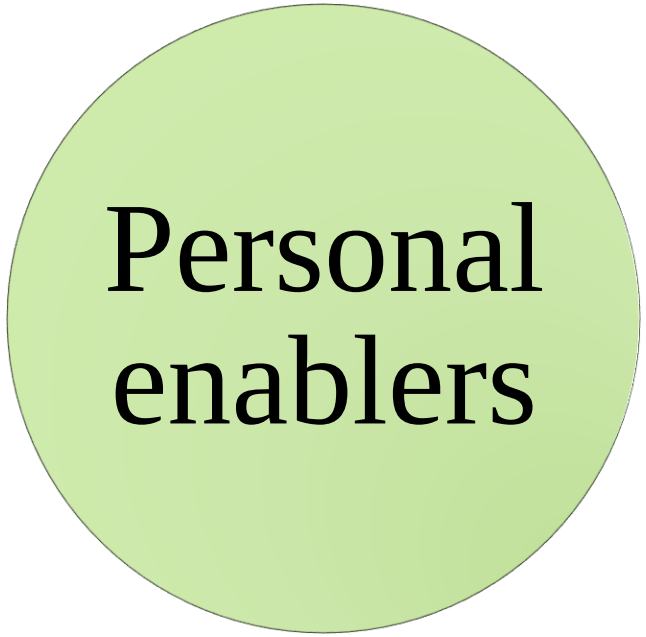
Physical enablers to walking



Kopp, et al., (2012)

Co-funded by the
Erasmus+ Programme
of the European Union

Personal enablers to walking



Start small – even walking

Walk locally

Taking more walking

Walking may be quicker than you think for short trips

Walking with other people

Through Social media isetting up walking groups

Dog-walking can also be a strong motivator

Kopp, et al., (2012)

Co-funded by the
Erasmus+ Programme
of the European Union

Walking promotion

Health promotion messages aimed at increasing recreational walking for young people should focus on:

a. The psychological and social wellbeing benefits of walking.
b. The flexibility, convenience and low cost of walking.

Co-funded by the
Erasmus+ Programme
of the European Union

Walking promotion

Health promotion messages aimed at increasing walking for transport for young people should:

a. Highlight the cost, convenience, health, environmental and community benefits of walking for transport.

b. Recognize the different influences on walking for:
   a. Children, adolescents and young adults.
   b. Young women and young men.
   c. Recreational and transport walking.
   d. Different trip purposes, times and locations.

c. Be based on an understanding of the advantages and disadvantages of walking, driving and using public transport in order to maximise the advantages of walking and minimise the barriers to walking.

d. Be well informed of the systemic and structural pressures and social context that impact upon young people's decisions to walk for transport.

Co-funded by the
Erasmus+ Programme
of the European Union

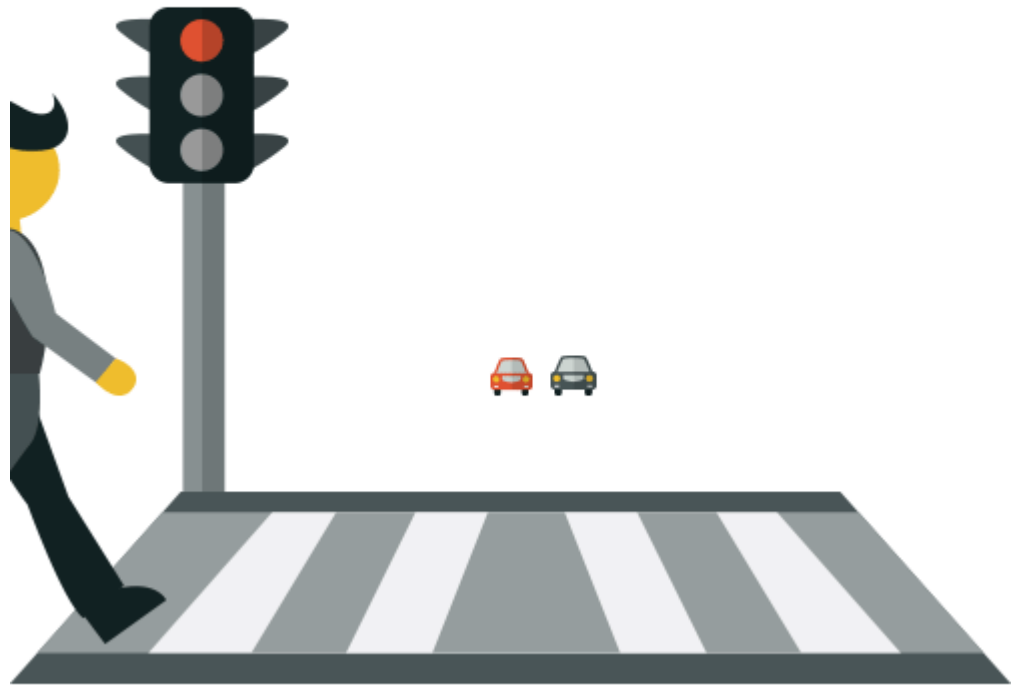
Walking promotion

- Develop a program to encourage and support young women, particularly those who are not involved in sport, to walk in their neighborhood and engage in their local community, that can be implemented in local settings.

Co-funded by the
Erasmus+ Programme
of the European Union

Walking promotion

- Work with education providers and/or youth mentoring programs to develop active travel programs to help maintain or establish a ‘habit’ of walking during periods of transition for young people, such as from primary school to secondary school; secondary school to higher education; and participation in paid employment.
- This could be complementary to programs seeking to increase social connection during times of transition (eg “walking buddies” programs).



Above all, do not lose your desire to walk: Every day I walk myself into a state of well-being and walk away from every illness; I have walked myself into my best thoughts, and I know of no thought so burdensome that one cannot walk away from it... but by sitting still, and the more one sits still, the closer one comes to feeling ill... Thus if one just keeps on walking, everything will be alright.

SOREN KIERKEGAARD, LETTER TO JETTE (1847)

References

- Barton, J., Hine, R., & Pretty, J. (2009). The health benefits of walking in greenspaces of high natural and heritage value. Journal of Integrative Environmental Sciences, 6(4), 261-278.
- Garrard, J. (2017). Young people and walking. Victoria Walks and YACVic, Melbourne, Australia.
- Harrington, J. L., Ayers, C., Berry, J. D., Omland, T., Pandey, A., Seliger, S. L., ... & de Lemos, J. A. (2017). Sedentary behavior and subclinical cardiac injury: results from the Dallas heart study. Circulation, 136(15), 1451-1453.
- Lamb, S.E. et al., 'Can lay-led walking programmes increase physical activity in middle aged adults? A randomised controlled trial', Journal of Epidemiology and Community Health (2002) 56: 246–25:http://jech.bmj.com/content/56/4/246.abstract; Parkkari, J. et al., 'A controlled trial of the health benefits of regular walking on a golf course', American Journal of Medicine (2000) 109: 102–8: http://www.ncbi.nlm.nih.gov/pubmed/10967150; Zunft, H.F. et al., 'Perceived benefits and barriers to physical activity in a nationally representative sample in the European Union', Public Health Nutrition (1999) 2: 153–60: http://journals.cambridge.org/action/displayAbstract?fromPage=online&aid=554588.
- Lee, I. M., & Buchner, D. M. (2008). The importance of walking to public health. Medicine & Science in Sports & Exercise, 40(7), S512-S518.
- Mackett et al., 'Overcoming the barriers', Table 1; Kopp, M. et al., 'Acute effects of brisk walking on affect and psychological well-being in individuals with type 2 diabetes',Diabetes Research and Clinical Practice (2012) 95(1): 25–9:

- Patel, A. V., Bernstein, L., Deka, A., Feigelson, H. S., Campbell, P. T., Gapstur, S. M., ... & Thun, M. J. (2010). Leisure time spent sitting in relation to total mortality in a prospective cohort of US adults. American journal of epidemiology, 172(4), 419-429.
- Schmid, D., & Colditz, G. (2014). Sedentary behavior increases the risk of certain cancers. Journal of the National Cancer Institute, 106(7). Wilmot, E. G., Edwardson, C. L., Achana, F. A., Davies, M. J., Gorely, T., Gray, L. J., ... & Biddle, S. J. (2012). Sedentary time in adults and the association with diabetes, cardiovascular disease and death: systematic review and meta-analysis.
- Siegel, P.Z., R.M. Brackbill and G.W. Heath, 'The epidemiology of walking for exercise: implications for promoting activity among sedentary groups', Am J Public Health (1995) 85: 706–10: http://www.ncbi.nlm.nih.gov/pubmed/12972873; Eyler, A.A., et al., 'The epidemiology of walking for physical activity in the United States', Med Sci Sports Exerc (2003) 35: 1529–36: http://www.ncbi.nlm.nih.gov/pubmed/12972873.
- Transport for London, Attitudes to Walking 2011 (2011): http://www.tfl.gov.uk/assets/downloads/customerresearch/attitudes-to-walking-2011-report.pdf,
- van Uffelen, J. G., van Gellecum, Y. R., Burton, N. W., Peeters, G., Heesch, K. C., & Brown, W. J. (2013). Sitting-time, physical activity, and depressive symptoms in mid-aged women. American journal of preventive medicine, 45(3), 276-281.
- Westby, M.D., 'A health professional's guide to exercise prescription for people with arthritis: a review of aerobic fitness activities', Arthritis Care & Research (2001) 45: 501–11: http://onlinelibrary.wiley.com/doi/10.1002/15290131%28200112%2945:6%3C501::AID-ART375%3E3.0.CO;2-Y/abstract.

…and I don't know if you believe it or not,
but this presentation has come to an end!

THANK YOU
FOR YOUR ATTENTION!!