Prevent sedentary lifestyle: where are we at in Europe?

Minutes

European Conference on on physical activity & sport Paris - April 6, 2018

#PrévenirSédentaritéEU



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Alex TAYLOR

Ladies and Gentlemen, hello and welcome to the first European conference on sport and physical activity. Our day will be dedicated to the key issue of preventing sedentary lifestyles: Where are we at in Europe? To answer that question, we have a packed schedule for the day, with presentations by experts from Germany, Finland, France, Italy, the Netherlands, Portugal, and the United Kingdom. We hope that this day - which has plenty of surprises in store - will be engaging and active. Go ahead and create a buzz on social media with the hashtag #PrévenirSédentaritéEU.

Now let's get straight to the heart of the matter with Patrick Jacquot, Chairman of Attitude Prévention.

Opening speech

Patrick JACQUOT President of Attitude Prévention

Good morning, everyone!

I am delighted to welcome you to the Maison de l'Assurance this morning for the first European conference on physical activity and sport, hosted by our organization Attitude Prévention. Attitude Prévention, which I have the honour of chairing, is a prevention organization which brings together all of France's insurers.

Insurers have been involved in prevention for years. Each insurer has its own prevention initiatives, and all of them work together under the aegis of Attitude Prévention to build up France's risk culture and encourage preventive practices as broadly as possible with the goal of reducing the number of road and household accidents and limiting medical problems to save more lives every year and help people enjoy life in good health for as long as possible.

The question before us today, that of physical activity and preventing sedentary lifestyles, is a major public health issue. It is a core part of the French government's 25 major preventive public health measures, presented on 26 March by the inter-ministerial committee on health. Those measures particularly target young people, and include initiatives to promote physical activity with the goal of reducing childhood overweight and obesity. That's a topic we have been leaders on for a long time at Attitude Prévention, because we believe that the educational continuum is essential when it comes to prevention, and that passing on good habits and attitudes as early as possible with a positive, educational approach is key to success. Norbert Bontemps, who heads our health commission, will present our program for ages 6 to 10.

Preventing sedentary lifestyles is a concern for all of us, at all ages and across Europe. That's why Attitude Prévention partnered with the IRMES to carry out a five-year study of sport and physical activity levels in France. We will be presenting the key results of that study today.

We believe that to prevent sedentary lifestyles, we have to go beyond individual national approaches to work on a European or even global level. Faced with the fact that a sedentary lifestyle is a mortality risk factor on par with high cholesterol, diabetes, high blood pressure, obesity, and tobacco use, and causes 600,000 deaths per year in Europe according to the World Health Organization, the only possible response is to get involved in fighting this scourge and to combine our efforts to make promoting regular sport and physical activity a major part of preventive public health outreach.

Today, we have the honour of hosting several European experts who work on preventing sedentary lifestyles. They will share their countries' experiments and initiatives. We also have representatives of the federations of insurers of Italy (ANIA) and Germany (PKV).

Throughout the day, we will strive to understand how we can act on the environment to change behaviours, and which awareness raising initiatives are the most effective.

In short, we have everything we need to enjoy in-depth discussions and take a close look at the issues involved in preventing sedentary lifestyles in Europe. Enjoy the day! Feel free to speak up and ask questions. Doing so can only enhance our discussions and make them more productive.

Overview of sport and physical activity levels in Europe and presentation of the Attitude Prévention/IRMES survey

Jean-François Toussaint

Director of the IRMES (Institute for Biomedical and Epidemiological Research on Sport)

Hello everyone.

Today, let's look at how we think about the issues surrounding the rise in sedentary lifestyles. We are currently seeing growth rates that look a bit different than they did a few decades ago. Life expectancy trends very clearly show that we are looking for more and more intensive ways to maintain or even increase life expectancies, which seem to be starting to level off. One of the major causes of that trend lies in the annual findings of the Eurobarometer: the percentage of people who are increasingly inactive climbed steadily from 2010 to 2014. In France alone, that figure was grew 8% in 4 years. Fewer and fewer people are regularly active. We see the same thing every year, at every conference, and yet we are unable to correct the trend. By 2025, the year after the Olympic Games in Paris, we may reach rock bottom. We must also take into account all the cultural, festive, and sport-related environments that will be created as part of the massive project of hosting the Olympics, and will improve our fellow citizens' quality of life in those areas in France, in a more celebratory atmosphere.

Sedentary lifestyles are on the rise. France ranks in the middle of the European panel. More than a third of our population spends more than 5.5 hours per day sitting in a chair. Europe is marked by a north-south gradient - contrary to both popular opinion and our measurements of sedentary behaviour - which shows that environmental conditions are one of the most significant factors in northern countries, with their low levels of sunshine and poor conditions for physical activity in winter. Outdoor conditions thus become increasingly favourable as we move south.

Then there is the self-reported data from the questionnaires. Numerous different sources have revealed the same thing: in the self-reported data, sedentariness is continuously increasing, and has reached 21% worldwide. Levels are extremely high in certain areas (the Arabian Peninsula, North America, Brazil). In addition to the self-reported data, sedentary behaviour has been very precisely measured using tools like GPS and accelerometers. With individual-level data on 111 countries and 68 million days, we now have very large maps of exact measurements that correspond to the information gathered via questionnaires and

self-reporting. There is clearly a very strong relationship with obesity rates in a given population. Saudi Arabia, Qatar and the United States have the highest levels and Asian countries the lowest, with Europe falling in the middle. While it's not at the bottom of the class, it could clearly be doing better. It is with this in mind that we are working to fight the continuous rise in physical inactivity rates.

Activity levels are constantly decreasing, including in the workplace, either due to decreased mechanical constraints as jobs become increasingly office-based, or due to the fact that commutes are less and less active.

The Netherlands, alongside Finland, was among the first countries to create a ministry dedicated to sport-related medical conditions and health benefits. However, very few changes have been observed in the population. Constant efforts to re-implement the project are therefore required.

And yet, we have the proof that physical activity, whether or not it involves going to the gym, reduces mortality. That proof comes in the form of a British study of 80,000 individuals, which showed a decrease of 15 to 50%. Joining an organisation, whether or not it is competitive, is associated with a very strong decrease in mortality, as is daily active transportation in the form of walking or biking. That was demonstrated by a five-year study of 200,000 individuals. This significant decrease in mortality is offered by all types of active transportation. It is on the basis of these ideas that the policies we had the pleasure of recommending to the European Commission - and which led to the first recommendation after the Treaty of Lisbon- can be implemented. This recommendation is not focused on competitive sport or doping prevention but on health and health benefits. All of Europe's Ministries for Sport have adopted this key value as a lodestar for their commitments. When it comes to education, inclusion in the Erasmus programme options opens up extraordinarily interesting possibilities.

The European Commission is increasingly keen to work on developing physical activity. It shares its work with the WHO, which in turn contributes by developing measurement methods (focal points, snapshots of European countries). Increasingly precise comparative tools are being developed, enabling the emergence of a common European language and making it possible to measure the same things in a comparable way. That will be an element of the WHO's 2025 strategy.

With regard to these measures - including both efforts to reduce inactivity and the resources required to create favourable environments - we have explored the idea of public-private partnerships to ensure that all potential stakeholders can find their place in this effort and enable implementation of all possible measures.

We will use very clear programs and strategies to define two or three elements of a possible success. We know how hard it is to get Europeans to change their behaviours. With coordination, and by defining leisure environments, workplaces and active transportation as our focal points, we will target two key groups: seniors and young people. Young people's activity levels directly correlate with their increasing tendency to only stimulate their neurons via screens or communication, habits which have them falling below the minimum levels of energy expenditure required for quality of life by a large margin.

In France, this issue does seem to be gradually garnering awareness. More and more elements involving the Ministry for Sports and the Ministry for Health are converging towards a larger-scale, more practical move to include physical activity in all policies. An EU recommendation calls for involving the specific elements that meet each country's needs and their local ability to adapt them in political consultations.

When it comes to education, the contributions made by specific initiatives developed around sports organizations or very unique initiatives like those that French structures have contributed at the Erasmus and EU level with their dual-career track for elite athletes, are clear, alongside a general reflection on how participating in sport at any level also offers benefits for young people in terms of enhanced cognitive development. Children who are active or play sports do better in school and earn better grades. We now have very clear evidence of that fact.

Preventing inactivity, social and environmental inclusion, gender equality: we will see how these options are distributed - and with what new consequences - as Finland has just released a study on the economic perspectives and costs of inactivity. There are both economic and environmental issues at play. We know how much individual health contributes to public health. Vaccination is one part of that. We now have more significant impacts related to environmental health, the beneficial impact of which will be all the greater. The question of the sustainability of major events brings us back to the Paris Olympic Games.

Where do we stand relative to Europe? Overall, at 8,000 steps per day, we are at the European average. Switzerland shows that we may have a few things to learn in terms of quality of life and policy. In Copenhagen, active transportation represents 47% of daily transportation. In Paris, we are at just 3% excluding walking, which leaves plenty of room to improve. These are areas where there are developments to implement. In Paris, we haven't yet seen cycling on major roads. That is one area where both an urban and a national strategy could provide answers - including to the Paris vs. suburbs debate.

Some countries have chosen to use transportation plans. Belgium, for instance, requires all companies with over 100 employees to update their plan for facilitating the development of active transportation every 3 years. The idea is to encourage employees and visitors alike to reduce the traffic generated by the company's activities. Different approaches are used to that end: bike parking areas, changing rooms, training, and mileage reimbursements. And they are effective. Car use around these companies decreased by nearly 20% over 5 years.

In the UK, the large-scale change4life program proposes a wide range of options, including tax breaks, for cycling to work.

Germany was an early adopter of the idea of primary and secondary prevention through physical activity as an element in both public and private insurance policies. The relevant criteria have been standardized to enable coverage for several years now.

The Eurobarometer, started over five years ago, produced results identical to those we obtained by measuring daily life using a pedometer on a representative sample of the population covered by our study. This effect has fluctuated over the course of 5 years, showing weather-related variations but no really significant effects generated by the different policies in place. We have a long road ahead of us. There are still those recommended 30 minutes to work into our daily lives through our travel capacity. 75% of our fellow citizens walk less than the recommended 10,000 steps - not an easy benchmark to memorize, but one of the practical elements in terms of our perception.

There are also wrong ideas and stereotypes, like the idea that young people are more active than older people. The very young average 7,500 steps per day, while adults average 8,000. Only over-65s take fewer steps than the youngest group. The highest levels should be seen at age 20, but that is not the case. In fact, the deficit is worsening among adolescents, making it a key issue to address.

Do we take advantage of our free time and our weekends to be more active? It seems to me that we spend our time on other things. On Sundays, we seem to prefer to hole up indoors. We interrupt our cycle - Is it a weekly recovery phase? I don't know. In any case, physical activity is not a priority in our lives.

All of this shows that time management is extremely important, as is motivation.

People with no pathologies take more than 8,000 steps. There is a very clear slope which structures the impact of medical conditions on the number of steps taken - and thus on total activity levels. There are also stratifications based on criteria like age within that slope. This indicates that finding a suitable activity is a key choice for older people. For younger people,

one possible structural point is cost. We should therefore think about ways of changing disciplines and possibilities.

Staying in shape is the most common motivation, but well-being is naturally very important, as are the need for assistance for young people and the underprivileged and medical recommendations.

Is there a difference between men and women? There is a phase in adolescence where the differentiation is very clear: girls are less involved and less active or athletic than boys, but that difference decreases significantly over time. I would add that the difference in life expectancy between men and women (6 or 7 years, in favour of women) is an important marker which certainly merits exploration of its causes.

Children are mainly focused on enjoyment, releasing pent-up energy and relaxation, far ahead of competition, although we should not dismiss their interest in competition, particularly for those who have that possibility.

The increase in screen use (tablets, smartphones, TV, computers), including among seniors, has already had certain consequences.

One of the clearest ways to correct that is probably travel time, which averages thirty to forty-five minutes per day. Half of all distances under 3 km are travelled by car. Electric bikes are a major innovation: they enable travel over significantly longer distances in fine weather.

Thank you.

Are there any questions?

In the audience

I'm the interministerial coordinator for walking and cycling. In France, since the early 60s, our protocols for measuring trips have meant that when a trip is mainly taken on foot with a brief leg using another mode of transportation, the entire trip is counted as using that other mode of transportation. The idea was to calibrate heavy transportation based on demand. That has led to walking always being underestimated. However, it currently accounts for over a quarter of all trips in France. Cycling trips are also under-represented. Paris is one of the cities where people walk the most in the developed world, since one in two trips is taken entirely on foot. The major issue is the difference between city centres and outlying areas.

Jean-François Toussaint

It is important to compare indicators to reality as quantified, whether using pedometers or accelerometers. We now have actual raw data which shows the number of steps taken during the day.

In the audience

I'm a journalist and a member of the medical commission of the French Hiking Federation. In urban areas, walking is encouraged by the quality of the paving and paths. People are invited to get out and about. Smart urbanization should make it possible to decrease pollution and increase travel on foot. Someone who needs a cane to walk won't go out if there are things that make it too difficult - but maintaining a minimum level of mobility is vital.

When it comes to children, they hate being told what to do. They are made to play. That's how they learn about the world. I think it's unfortunate that we don't focus more on the idea of play. It's unbelievable that kids play on their mobile phones or tablets on the school playground. It's unfortunate that for purely economic reasons, children's activities have been shifted towards developing economic growth through innovative objects, which are essentially virtual and non-physical.

Jean-François Toussaint

I don't have much to add to that. The ideas of play and fun are essential. That was one of the top objectives of the national plan for prevention through physical activity and sport a decade ago.

In the audience

I'm the Director of Sport for the Departmental Council of Essonne. We have seen that women live longer than men and are more active. Why?

Jean-François Toussaint

Your question brings us back to our testosterone levels... What do they do for us? They get us to explore, to be more active during a certain stage of life, and get ourselves into riskier situations from adolescence on. More surprisingly, this difference is encoded into very strong constraints, which still exist in certain countries or at certain times. And it doesn't happen in adolescence or adulthood: girls have higher survival rates from their earliest years.

Alex Taylor

Thank you very much for that introduction to the day. After that very broad overview of the situation, we're going to move on to some very concrete examples.

Panel 1 : Portugal and France 💿 🕕

Prof. Dr Paolo ROCHA

Faculty of Sports Sciences, University of Lisbon, National Sports4All Program, Portuguese Institute of Sport and Youth

Thank you for inviting me. It's my great pleasure to be with all of you today. I hope that the results from the Eurobarometer presented today will be released throughout Europe. Communicating the results will provide many other countries with useful information to reflect on and tackle these issues. It is admirable work, providing us with recommendable best practices.

Unfortunately, in Portugal, the figures are not encouraging. It's a problem that we would like to solve. We've just been through a period of economic turmoil. The figures were not good. We're searching for the best measures to resolve our problems.

We have adopted an inter-ministerial and inter-sectoral strategy. We will present the resulting action plan on the 28th of next April. For example, before, we had no alliances with European health authorities. Our Portuguese Institute for Sport and Youth only interacted with European sports authorities. Now, we have established ties with health entities. Recently, three European Commissioners (one appointed to health and the other to sports) visited Lisbon to explain the importance of incorporating health and sports in public policies.

We have a troubling situation: Europe is ageing. Apart from France and Germany, the labor force is ageing in all the other countries across Europe.

The close link between exercise and life expectancy has long since been established. There is a proven correlation. Yet, our level of physical activity is insufficient to turn figures around. Cardiovascular diseases are one of the major causes of mortality. Diabetes, cholesterol, hypotension and smoking all have dangerous consequences. A lack of exercise carries the same risks. So it's unclear why we do not invest money to promote physical activity the way we do to fight cardiovascular diseases and hypotension.

Although practicing a sport does burn calories, there are far greater benefits. When we practice a sport, we move our bodies. In certain cases, practicing sports - which gets muscles working - can restore balance to an improperly functioning organ.

Youth are more successful in school when they practice sports and lead active lives. This shows a clear link between physical activity and our central nervous system's health. Working our muscles, or practicing sports, has a direct impact on our body's capacity to fight carcinogens.

There is, then, a lot of work to be done in this field, but public representatives are not willing to listen. They simply want us to tell them how to solve the problems.

In 2008, we published guidelines. For the first time, sport's impact on health was brought to light. Since then, the European Commission is asking itself how it can measure government actions. Currently, we are evaluating the best means for collecting data.

The financial aspect is key. Costs attributed to physical inactivity over a year period are higher than those incurred to rescue Portugal from its financial crisis. Reducing the problem by 20% will save us 16 billion euros, or more. We are faced with an enormous problem, but there are solutions.

There is a cultural dimension to the issue. Weather is not the only factor. Portuguese climate is fantastic. However, this doesn't motivate everyone to engage in physical activity. There are other factors involved. We need to take structural measures. Together with

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European government officials, we feel it's important to better understand the root of the problem. To do so, we need to gather more data.

Backed by the European Commission and the WHO, we suggested creating a framework for comparing European data. This data will give us a snapshot of the current situation. For now, we are unaware of how much needs to be invested in each sector. Investing money does not guarantee positive results. Investments have to be optimized.

In January, a project launch meeting was held in Budapest. We still have a lot of work to do. In spite of that, Japan is already very interested.

What are the next steps? What are the next challenges? The insurance sector may have an important role to play. For decades, insurance providers have taken a traditional approach. They noticed the inherent health risks and consequently adopted a punitive approach.

We have entered the fourth major industrial era, defined in part by the arrival of artificial intelligence. Last week, President Macron launched a program based on the same topic. The sports industry should prepare itself. How can both insurance and sports sectors work together to develop a fresh approach, one that stimulates rather than punishes? There are no winners in inactivity. We should highlight the idea of compensation. For every euro invested, you gain 4 euros. If you invest 100 million euros, you will gain 400 million.

One aspect of this new approach entails identifying new population segments. Physical activity in the workplace is vital. Also, new forms of physical activity are emerging: The Olympic Committee has incorporated new sporting disciplines, such as e-sports. Certain individuals are indifferent to football or basketball, for example, and their demands should also be met. Yet, we haven't addressed this issue. The main challenge lies in creating joint programs that adopt an innovative approach to prevention.

Jean-François TOUSSAINT Director of the Sports Epidemiology and Biomedical Research Institute (IRMES)

Active mobility is fundamental. I would like to point out two relevant key ideas, notably a top-down approach to the study of environmental issues. Ten years ago, the Grenelle Environment Forum's study on reducing greenhouse gases and pollution led them to ideas about work conditions. They suggested promoting walking and biking to and during work as key actions to take. The National Health Environment Plan (PNSE) also set goals to reduce environmental risks. They aim their regional efforts at urban planning, housing and defending active mobility and its effects. We also need to increase awareness. The link between health and daily transport has led to the development of additional strategies, including those that focus on nutrition (ex. the National Health and Nutrition Program & Plan Cancer). Employers that develop these types of programs receive tax reductions.

Linking different modes of transportation (trains, bikes) requires bike racks or bikesharing systems in train stations. Integrating this type of strategy is key. The widespread commitment to this new approach is part of a gradual evolution of various systems, notably in Europe, reflecting the move towards sharing and complementary mobility. And week-ends along the Bourgogne canal or the banks of the Loire are just an added bonus! Holland and Denmark are perfect examples.

Passing knowledge on to future generations is vital to create environmental and contextual conditions that are favorable to these types of mobility.

Key players are involved, notably France's Bike Users and Cyclable Cities Associations. They're behind concrete sustainable mobility measures. We are capable of evaluating the health cost savings per person of a complete modal shift from driving to bicycling. In other words, replacing your car with your bike for all of your daily trips. Of course, this comes with a slight increase in pollution exposure. But taking less congested roadways alleviates the problem. More bikes on public streets lead to less accidents involving cyclists. This has been proven across the board in all countries and cities. Motorists, who are not voluntary murderers, gradually slow down to biking speeds when more bikes are on the road. However, speed is by far the primary life-threatening risk among these interactions. The use of space is, thus, a key element.

In reality, the health benefits are ten times greater than the risk. The risk is real yet well evaluated. This modal shift represents the equivalent of 1,000 euros per year/person. While these elements are extremely important, and contribute to the benefits of exercise, pleasure remains a primary motivating factor.

Alex TAYLOR

I agree with you about the importance of pleasure. Pleasure helps us learn faster.

Are there any questions or remarks?

From the audience:

I work at Essonne's County Council. Thanks to the quality of our infrastructure and our proactive actors, we are able to impact mobility. On the subject of pleasure, why not develop strategies to create detours or pathways linked to culture, art, travel or heritage to implicitly stimulate mobility?

Paolo ROCHA

The notion of pleasure is key. We try and motivate people to get moving, but through activities that don't necessarily bring them pleasure. It's true. We can definitely pass on the idea of pleasure to youth. In Nordic countries, the population doesn't mind travelling a distance of 15 km, regardless of the climate. A 10 to 15 km bike ride home at midnight after diner is possible even in sub-zero temperatures. It's a question of mentality and culture. We are less likely to do the same where we live because we're afraid of accidents.

With children, we should start very early. In schools, we don't promote these types of habits as a way to tackle the issue of mobility. We could instill best practices for youth, such as the walking bus or organizing visits to heritage sites. We don't always tackle the problem from the right end.

Alex TAYLOR

Let me give you an example. Last week, I was in Nice. The weather was lovely. I was on the Promenade des Anglais and I wanted to go for a bike ride. It was so complicated that I gave up. So I travelled by foot. If it was easier to get a bike, maybe more people would use them.

Paolo ROCHA

In Copenhagen, there is a special space for bikes in the train. Workplaces have showers available. In Paris, there's no equipment for people who travel by bike. The idea goes beyond simply getting from point A to point B with your bike, and authorities need to be active players in the shift.

From the audience:

I am a member of the Medical Commission of the French Olympic and Sporting Committee (C.N.O.S.F.). I would like to highlight an important point: Increasing physical activity stimulates the brain. In Canada, school children do exercises every half hour. In France, if we fall behind in math or spelling, we are required to do more written exercises. 21 new measures have been announced. None of them raise the level of physical activity and 4 will increase time spent in front of a screen. Proposals for school bus drop-offs 1 km before kids' destinations are rejected because of security reasons. How do we resolve these same problems that North America has successfully solved?

Jean-François TOUSSAINT

I don't necessarily agree with you concerning North Americans' solutions to their problem of sedentary lifestyles. However, initiatives have been implemented to fight obesity and physical inactivity in certain cities, such as Seattle. This proves that in certain places citizens have decided to boost their elected officials.

It's not easy to convince Cédric Villani of the importance of getting his students moving so that they'll better understand their math lessons. The French education system is similar to other European countries. We are still too focused on developing certain disciplines. Instead, we should simply get out of the classroom for some fresh air and exercise from time to time. It would allow children to return to the classroom fully recharged. Unfortunately, things are hindered at the organizational level.

From the audience:

The Health Ministry has several different management divisions. The Health Ministry's general management genuinely promotes prevention. But other management divisions are only concerned with immediate expenditures. Those management divisions consider all future gains as private gains. We were told that gains reaped in morbidity and mortality rates

through regular bike riding were seen as private gains. Therefore, I'm led to believe that smoking isn't a public health problem, but rather a private problem.

Children's autonomy in the streets, on bike or on foot, is an important issue. We have a collective tendency to overprotect our children in France. In an effort to be kind, we take our kids to school in buses and cars instead of developing their autonomy. I'm very pleased with a new measure adopted on the 9th of January in the framework of the Inter-ministerial Committee for Road Safety. The measure fosters autonomy for children by teaching them how to walk or ride a bike to school. The aim is that they will be able to go to middle school on their own. I would like to be sure of our success.

From the audience:

I work for the French Public Health Agency. I would like bring attention to a Guadeloupeborn initiative that puts "desk cycles" in certain classrooms. Children pedal while they work, and vice versa. This measure helped children who were normally shy express themselves. Before implementing the measure, professors, who feared for their role as teachers, had to be convinced and trained. Some schools in mainland France have developed these kinds of initiatives. If I'm not mistaken, in certain Nordic countries, school children attend their classes standing up. We still have a lot to do in this field. Children spend enormous amounts of time sitting in school.

Alex TAYLOR

Is it possible to work well while exercising? Is this a positive thing?

From the audience:

It depends on the intensity. When we exercise, our heart rate accelerates and parts of the brain are vascularized. This improves concentration, attitude and memorization. However, practicing sports and working simultaneously is not necessarily easy.

Paolo ROCHA

Europe likes to enact rules. When someone proposes an initiative, we like to incorporate it into regulations or a framework. Over the last three to four years, our task force has produced guidelines to support physical activity, highlighting its benefits in an educational context. We promoted an increase in the number of hours of sports at school. During the Lisbon conference, we were able to convince Europe that 5 hrs. of sports per week is necessary. A country like Denmark goes beyond that. Sports should extend beyond physical education. Such initiatives were undertaken in Portugal, standing classes or classes while running, for example.

Schools will dramatically change over the next five to ten years. For now, we don't know the nature of these changes. The Finns' system relies more on concepts than disciplines. Courses are not necessarily organized according to subjects or classes. A problem is analyzed at different angles, in different classes. This is an interesting approach, especially since sports classes are included.

Certain countries will evolve quicker than others. But I hope each country will progress.

Jean-François TOUSSAINT

I completely agree with Paulo Rocha. Double or triple-tasked exercises are also applied to top athletes. They include physical and intellectual activities, as well as a collective strategy. In Finland, standing math classes stimulate active daily practice. I hope that the French national education system will participate in the evolution that we already see in other European countries. At any rate, I'm optimistic. Panel 2 : Germany and Holland

Ute WINKLER Head of Division, German Ministry of Health

Thank you for inviting me. This is a very exciting day.

In Germany, as in many other countries, too much of the population is not active enough. The WHO recommends 150 min. of activity per week for all ages (children, the labor force, senior citizens). It isn't a lot, but it contributes to better health. Physical activity prevents chronic, non-communicable diseases or pain. Inversely, a lack of physical activity can cause chronic diseases, as does smoking, alcohol consumption or poor dietary habits.

We underestimate physical activity's role in chronic diseases. In Germany, we do not have a Ministry of Sports or Physical Activity. However, we do have Ministries specialized in nutrition and diet. The European Union held a summit on today's issues in Lisbon. In the next two weeks, the WHO will present its global action plan concerning physical activity. It's vital that we support these initiatives.

Germany is a federal state. Federal agencies and the local authorities of Länder are responsible for promoting health and physical activity. Local authorities or medical organizations also share certain responsibilities. It's rather difficult to navigate within these administrative layers.

National recommendations were published in 2016. We didn't invent anything new, many countries already have recommendations of this nature. But these guidelines are unique in the way they systematically linked physical activity and age groups. They targeted more than just individual levels. Certain groups are not always targeted by primary prevention campaigns. They are more often targeted by tertiary prevention campaigns (rehabilitation, follow-up care, etc.). These guidelines apply to schools, workplaces, nurseries and kindergartens.

Legal framework plays an important role. Three years ago, we adopted a preventive health care measure. The measure is tied to Social Security. We committed 500 million euros per year to promoting preventive health care initiatives. This legal framework is a big step forward for fostering actions and projects that promote sports and physical activity.

Bringing physical activity to the forefront requires a multi-sectoral approach. One industry or sector is not enough. The scientific community, clubs, city planners, researchers or public transportation representatives need to collaborate and network. Each stakeholder should take part in the reflection because collaboration goes far beyond just the health sector.

In Germany, we have had a national action plan promoting nutrition and physical activities for ten years now. It was implemented under the auspices of the Ministry of Food and the Ministry of Agriculture. There is also a "sports for health" program set forth by the German Olympic Sports Confederation, which underpins and is consistent with the preventive health care measure.

Success depends on the participation of all the stakeholders. The work is a daily challenge because actors are required to reconcile their different perspectives. And, occasionally, interests are conflicting. Groups need time to adapt to working with different sectors and different actors.

Our next step is to diffuse and apply national guidelines. Various actions have already been taken by some actors. For us, it was crucial that everyone participate. The measure is designed to be inclusive, allowing each actor to contribute their expertise and experience.

For example, we should provide training materials specifically adapted to the targeted group. Fostering cooperation across different sectors allows us to meet specific interests. Germany has a new, unique situation. Now, school children stay at school all day. From now on, clubs and sports activity leaders go to the schools. That took organisation.

Prof. Dr. Hans SAVELBERG Department of Nutrition & Movement Sciences, Maastricht University

My presentation will be a bit different because I would like to talk to you about the underlying biological theories in our guidelines. For a long time now, we've thought that movement prevented diseases caused by sedentary lifestyles. Yet, our attitude is beginning to change. Various published scientific articles show that physical activity, while necessary, is insufficient. Behavior is also important, and perhaps more so than simply moving our bodies.

If I ask you these two simple questions, "Do you exercise often?" and "are you often sitting down?" you may have a tendency to give the same answer. But in reality, it's possible that you exercise every morning and evening, and between those times you spend the day sitting at your desk. Thus, regular exercise and sitting for long periods of time are not contradictory.

I have identified two paradigms: the paradigm of energy balance and the paradigm of "use it or lose it".

Let's take the example of a 20-year-old woman who eats on average 2,200 calories per day. Depending on what this young woman does during the day, she will need to burn a part of these calories through physical activity. Otherwise, the excess calories will be transformed into fat. The question is: What do we do with excess calories? To burn 400 calories, we can either bike for an hour at a relaxed pace, a half hour at a fast pace or walk for three hours. Guidelines indicate that we should exercise every day for 15 to 20 minutes but those guidelines cannot be applied to every situation.

The paradigm "use it or lose it" does not solely rely on intensity. Guidelines indicate that we should exercise every day. Take the example of someone that exercises for 30 min. on a given day. Their muscles and metabolic system will be strengthened. However, what happens during the 23.5 hours left in the day?

In a nutshell, these two paradigms conflict with guidelines.

In our research division, we investigated the topic by forming three cohorts. The first cohort remained seated for 14 hrs. over a 4-day period. The second cohort exercised everyday as if they were going to work. We reduced the third cohort's sitting time to 8 hrs. and asked them to walk and remain in a standing position. We compared the three cohorts, whose subjects had diverse profiles. The result was the same: The cohort that spent the least amount of time sitting showed improvements in blood tests. However, the second cohort did not show better results than the first. The test concluded that one hour of exercise (double the recommendations) is not enough to compensate for the consequences of extended periods of sitting. Other experiments performed in other countries yielded the same conclusion: Exercise is not the only factor in wellness. Disrupting periods of inactivity is also important.

Inactivity and the seated position are two different things. Individuals that row or bike are seated, but they are not inactive. Likewise, a person sitting on a big yoga ball at their desk is not really in a seated position because they are using their stabilizer muscles. This is a key point in promoting wellness and in public policies.

We should not force people to be active. Certain individuals don't like it. However, we should encourage people to break up their periods of inactivity. Mobility, biking and standing work stations can help. In the university setting, sometimes we stand during classes. We can also use the environmental factor to encourage people to get outside and be active.

Alex TAYLOR

Do you have any examples of Holland's concrete initiatives? What were the results of those actions? Did the population become more active? Should they stop practicing sports?

Hans SAVELBERG

Of course not. Personally, I couldn't imagine my life without sports. However, some individuals don't like sports. They give it a try and then quickly give up. We have to try and regularly disrupt the time we spend sitting to burn excess calories.

Alex TAYLOR

Is this mind set widespread in Germany? Does it have an impact?

Ute WINKLER

Yes. There are three levels: sports, daily physical activity (such as walking) and a sedentary lifestyle. We shouldn't remain seated for long periods of time. For example, we can exercise while watching television. Young people are always glued to their cell phones. Why not be active at the same time? Sharing our different experiences and distinguishing actions according to targeted groups are both vital points to consider.

Alex TAYLOR

What's your opinion on cycling or rowing if sitting is the enemy?

Hans SAVELBERG

The enemy is not sitting, inactivity is. In rowing, no one is inactive.

Alex TAYLOR

Who in the audience would like to speak?

From the audience

What about wellness and life span for loggers in the Black Forest or construction workers? These individuals have a very active life, but their life expectancy is not necessarily very long.

Hans SAVELBERG

I wouldn't say that working in the woods or on a construction site is exercise. These are grueling trades and examples of how mechanization is a positive evolution. However, from a public health standpoint, people should not make a habit of mechanization.

Paolo ROCHA

Between the late 1960's and early 1970's, an interesting study was conducted on the mortality rate of London's bus controllers. Their job entails climbing in and out of buses. Other studies were conducted on various grueling trades, such as ship-loading dock workers in San Francisco. Those individuals expend enormous amounts of energy in their jobs, which creates good prospects for life expectancy. Many epidemiological studies show that these grueling trades can contribute to health.

Ute WINKLER

Physical activity is not the only factor in living a long and healthy life. Other factors come in to play, such as nutrition, smoking, alcohol consumption and/or genetic predispositions.

My theory is simply that physical activity is not adequately taken into account. It deserves more visibility.

Incidentally, work environments are an interesting topic. Promoting prevention in the workplace is different for loggers and office workers, and should be considered when defining programs, measures and initiatives.

Alex TAYLOR

In Germany, what indicators do you use in schools and hospitals?

Ute WINKLER

We concentrate on the environment, the context. Reaching everyone is critical. Certain groups have unique profiles because individuals have different degrees of physical activity. We really try and concentrate on the context. An environment that actively fosters physical activity is key. For example, it's easy to find an elevator in a hotel, but it's difficult to find the stairs. So everyone takes the elevator.

Alex TAYLOR

In my Nice hotel, I couldn't even open the windows in my room to breathe in the fresh air.

From the audience:

Do you find it acceptable for a person to have a relaxed week and then once the weekend comes, they engage in extreme activities such as paintball? The studies I have read on this point are contradictory. On another note, you have not mentioned stress and anxiety factors. You said that we should break up our periods of inactivity. Perhaps we should do the same with stress.

Hans SAVELBERG

We should not spend our break time sitting. According to published studies released over the past few years, sitting has a negative long-term impact on health. If you are active on the weekend, you expend energy. Unfortunately, the rest of the week your body is often insufficiently stimulated.

Alex TAYLOR

What kind of lifestyle do you lead?

Hans SAVELBERG

I have a standing desk. It's about trying to disrupt sitting. And, if I need to deliver a message to a colleague who works on the floor above me, I prefer walking to his desk instead of sending an email. I often take the stairs. I love biking. I don't need to change my lifestyle. I am 55 years old and in good health.

Alex TAYLOR

Thank you.

Insurance Federation Initiatives

Norbert BONTEMPS President of the Attitude Prévention Health Commission

I work at Groupama. It's my pleasure to preside over the *Attitude Prévention* Health Commission. Through our actions, we confront health risk issues. Today, we would like to present our project "bouge avec les Zactifs" (English translation: get moving with us), which is at the heart of our current discussions.

Since 2012, the association *Attitude Prévention* has chosen physical activity as the central theme in our actions. That same year we produced our first barometer. After two years, we decided it would be interesting to develop a specific focus on young children. Contrary to popular belief, young children are not the most active. Additionally, we are deeply committed to passing on good habits to youth, tomorrow's adults.

The "bouge avec les Zactifs" project primarily targets children between the ages of 6 and 10 years old. We use several different tools, notably 5 short cartoons involving three characters that promote physical activity. The scenes entail two children that advise a third about how to get his body moving every day. The idea is to have a simple and playful conversation about how to have fun, reminding kids that physical activity is not necessarily about competition or athletic performance. There are a myriad of possibilities. The 5 cartoons are entitled "be active every day, it's easy", being active is good for your health", "there's a sport for each one of us", "to have fun, switch up your activities" and "being active as a family is great".

Attitude Prévention created the website bouge-avec-les-zactifs.fr. By visiting the website you can find films and various teaching and training materials. In 2017, the website recorded 9,000 pages viewed. A large part of the visitors were between 25 and 44 years old.

Attitudes Prévention impacts health by developing tools that promote physical activity. Our challenge is to find channels that help us pass on these messages. So we contacted 1st to 5th grade teachers. We prepared teaching materials for them that include films, and goals and messages to convey. Through these tools, we want children to understand that there is no one sport better than the other. Possibilities are endless, and there will always be a sport adapted to each one of us. Of course, we hope these tools will be widely used.

Our second avenue for spreading our message is the PUC (Paris Université Club) sports club. Here, we try and take advantage of extracurricular hours to spread our message about physical activity. We use themes, key messages and goal-oriented sports workshops. For example, one of the themes is entitled "cleaning your room is child's play". It's based on the observation that when children clean their rooms, they are physically active. We convey a message that revolves around fun and teaches kids that competition is not the only way to practice a sport.

We have a third outlet. We provide activities to children outside of school hours in collaboration with the association FLVS (Fleurbaix and Laventie: the healthy towns) as part of their "healthy living" project. Numerous townships participate in the project. We've worked with facilitators from different townships to develop training tools. We use workshops centered on messages and activities, and have also developed tests that measure facilitator satisfaction. The first tests yielded positive results, averaging 8 out of 10.

At the end of March, the government announced that it would launch a priority prevention program. Out of the 25 actions, 3 relate to education and/or physical activity. The risk of obesity in children is well highlighted. We hope the government program will allow us to

deploy our tools and boost physical activity in children. On a wider scale, we hope it helps everyone increase their physical activity.

Luigi Di FALCO Head of Life & Non Life Department, Italian Association of Insurers (ANIA)

It is my great pleasure and honor to be with all of you today. I will be speaking to you about the initiatives spearheaded by Italian insurers, notably by the ANIA foundation created a few years ago. Our initiatives aim to promote prevention and awareness regarding the population's health. We are dedicated to raising awareness, but often the benefits of our actions in the fight against sedentary lifestyles are unknown. Awareness is a key element and mind set is also extremely important.

In 2004, the ANIA foundation was created by insurance sector companies. At that time, its mission was to improve road safety and we headed numerous initiatives for that cause. We hope we contributed to the reduced number of road accidents involving vehicles. Over the last 12 to 13 years, the number of injuries was reduced by 25% and the number of victims by 50%.

Last year, our members decided to expand our mission and initiatives, bringing in a new social purpose. They wanted to delve deeper in to the notions of protection and prevention while taking a step back from road safety issues. Public interest was the new focus. So we organized a communication campaign reflecting this shift. We created an observatory dedicated to tracking technological evolutions and the innovation opportunities that result. Road security is no longer our only priority, in spite of Italy's position as a global market leader for radar-detecting black boxes. We also address natural disasters and gaming addictions. Last year, we coordinated and financed a study devoted to achieving a level of predictability before the arrival of natural disasters.

Today, I would like to concentrate on the health campaign we launched. As an ageing population, Italy has the highest number in Europe of senior citizens over the age of 65. However, we are unaware of their health status. So we organized a street health tour across 19 cities with doctors and health professionals. With an equipped truck, we accomplished 6,400 health check-ups. We distributes more than 17,000 brochures, 9,000 body mass index counters and had 3,000 questionnaires filled out by our visitors.

This campaign highlighted the lack of awareness about health issues. For example, 60% of our visitors had thyroid problems, and 40% of them were unaware of it. 35% had untreated high blood pressure. Ten people were taken to the hospital for emergency care. 6% of our visitors had severe neurodegenerative diseases. We were able to perform diagnostics on our visitors' heart functions and dietary conditions. Half of the individuals were overweight, mostly men. We also examined visitors' reflexes, eyesight and hearing.

We gave each visitor a questionnaire to fill out, and received approximately 3,000 answers. The questionnaire focused on lifestyle. People tended to respond that their diet was balanced. A significant percentage admitted to not being active enough. Bear in mind that the problem of sedentary lifestyles in Italy is widespread.

It's clear that many Italians are not aware of their own current health status. Italy is ageing. The issue, thus, takes on a political nature. It's not enough to increase spending on health to fight certain problems. There needs to be a conversation about prevention to improve the health of our fellow citizens. From this standpoint, we have a lot of room to maneuver. The positive results of this first campaign encourage us to do it again, giving us the opportunity to convince our fellow Italians to participate in our upcoming projects.

Dr Florian REUTHER

General Director of PKV-Verband (German Private Health Insurance Association)

Thank you for the invitation and for organizing this international event. It's my great pleasure to present you with an overview of the actions taken by PKV concerning overall prevention in Germany.

PKV brings together nearly all of Germany's private health and long-term care insurance companies. Its members cover virtually the entire market, and work only in the health-insurance sector in three following categories:

- substitutive health insurance (which replaces social security)
- supplementary health insurance
- long-term care insurance, since 1984

So we have a great deal of experience in the field of long-term care, especially in the light of Germany's ageing population.

The health insurance market totals 38 billion euros of annual contributions and 27 billion of benefits, a significant gap. This is due to our business model, whereby German insurance providers act as ageing reserves.

For the last 30 years, our association has been committed to overall prevention. Essentially, health and long-term insurance play a key role in Germany's social security. In this way, insurers assume their social responsibility. The health insurance sector shares prevention goals: maintain lifelong good health and quality of life. In Germany, health insurance is used like life insurance and providers are ageing reserves. At the end of 2017, the reserves totaled 240 billion euros, generating capital for the future. Insurance providers can not cancel contracts. Consequently, contracts last a lifetime and providers must consider the insured throughout their entire lifespan. And that matches prevention goals.

Our association works in four main fields:

- the fight against HIV
- addiction
- alcohol abuse
- education

These commitments have common grounds. First, they all require working with partners with specific expertise in order to be effective and get closer to target groups who are often isolated from providers. We also need scientific evaluations, because many actions fail in spite of the good intentions that sparked them. Sometimes we need the courage to abandon certain measures when they prove inefficient. We owe that to our clients.

In 2005, we formed a partnership with the Federal Centre for Health Education (BZgA), a German authority dedicated to prevention issues related to HIV and other sexually transmitted diseases. More specifically, the PKV financed a successful campaign throughout Germany. This award-winning campaign had a positive impact in the field of HIV prevention.

Since 2009, PKV has also financed a campaign called, "Alcohol, know your limits". The campaign was created by our partners, the BZgA, and is Germany's largest alcohol abuse prevention campaign. It specifically addresses adolescents.

Our longest standing commitment is our fight against AIDS. As early as 1987, in association with other institutions, the PKV founded the German AIDS Foundation. This initiative demonstrated the private sector's willingness to share the responsibility in the issue. It's given the private sector the opportunity to show its ability to understand today's topics.

In 2015, the PKV created the Foundation Gesundheitswissen, a non-profit under public law. Their goal is to present prevention, diagnostic and alternative treatment measures. Often, the playing field is not level during patient-doctor discussions. For this reason, the Foundation offers practical information on subjects such as arthritis.

As we mentioned earlier, German society has an older population. Long-term care is therefore a key challenge for the future. Since we have a wide range of experience in long-term care insurance, we are also devoted to this scope of prevention. In this field, we work with the Centre for Health Education. One of our projects promotes mental and physical activity for senior citizens and the elderly, even those requiring long-term care. The city of Lübeck spearheaded the initiative, which includes a training program for long-term care individuals over 65 years of age and living in a retirement home. In 2017, project tests and evaluations were performed throughout 25 establishments in Schleswig-Holstein.

The project is called "Life Balance" and includes a second branch that targets individuals over 65 years of age who do not live in retirement homes. The idea is to promote physical activity during everyday actions, such as carrying grocery bags, climbing stairs, etc. The project is developed in partnership with the Sports University of Cologne. It begins with courses for physical trainers. Eight hundred courses are offered by sports clubs. Each participant receives a box filled with leaflets about movement and exercises to practice during everyday life.

From experience, we know that there is no universal approach. It's important to target each group according to their needs, on a long term basis.

Thank you for your attention.

Alex TAYLOR

Norbert, you are Director of Claims and Benefits at Groupama, but also President of the *Attitude Prévention* Health Commission. Why do you think insurance providers should be collectively engaged in these issues?

Norbert BONTEMPS

Prevention is an integral part of the insurance business. The provider's job is to protect the insured from risk. The best way to do that is to avoid the risk. As for sedentary lifestyles, it's a topic that requires real transformations and cultural shifts. Insurance providers alone cannot spread this type of message. So naturally, providers collaborate to create the ideal structure for developing prevention measures. But this collective will need to broaden. That's precisely why we all meet here today as experts, insurance providers and public authorities. Panel 3 : United Kingdom and Italy 🔀 🌔

Mike DIAPER Executive Director for Tackling Inactivity Sport England

It's my great pleasure to be with all of you today. I will be talking to you about our work in the United Kingdom, notably to close the gap between sexes in the field of sports. It may seem ironic that a man is addressing this issue. But rest assured, this project was developed by women, for women, and gathers its inspiration from women's' desires.

We try and aim our expertise at everyone, regardless of their social background or abilities, promoting their participation in physical activity and sports.

However, in England, the tough reality is that we are sometimes confronted by the conservatism inherent in the sports sector. 40% of British people are not active enough, and more than 25% are inactive (less than 30 minutes of exercise per week). In addition, older, low-income women have a greater likelihood of belonging to this group. We even fall behind the United States in terms of physical activity, which is quite an embarrassing statistic.

In 2014, we concentrated on sports. We observed an extremely large gap between sexes, with nearly 2 million more men "practicing sports" than women...an unacceptable figure. We decided to make this disparity a top priority. To combat inactivity we developed four main teaching points that we apply through behavior-changing techniques. They're the same techniques used by companies to push us to buy one product instead of another. We tried to design our offer with the same public that we hope to reach. Inactive people rarely engage in the offer proposed to them. We met with approximately 3,000 girls and women. While 75% of them told us that they would like to be more active, they gave us a great deal of reasons as to why they don't get started. For example, they don't want to sweat, seem silly or feel guilty about not spending enough time with their children. Some did not like the sport they were offered. By digging a bit deeper into the subject, we identified a common barrier for many women: fear of being judged on their appearance or capacity. A voice inside whispers to them, "don't do that, it's ridiculous".

We decided to try and help these women overcome their fears, motivating them to go for it. In fact, we want women to be able to take advantage of the socio-economic and health benefits of sports. The "This girl can" campaign focuses on what women can do instead of what they can't. The campaign targets women between the ages of 14 and 40. It encourages and empowers them. The goal is not only to raise the level of physical activity and sports, but also to change women's' perception of them. We have opened the door to sports for these individuals. But there is still a lot of work to be done.

We launched this campaign on social media, television, in cinemas, cafés, sports clubs, etc. The posters contain pictures of real people, not actors, and are not touched up. The slogans come from real women practicing real sports. For the campaign, women can create their own posters, using their own photos and slogans. 47,000 photos were downloaded onto our application. We also give free access to these photos, videos and stories to NGO's, charities and sports clubs.

In 2017, we launched a campaign using a poem written by the activist and poet, Maya Angelou called "Phenomenal Woman":

Pretty women wonder Where my secret lies I'm not cute, Or built to fit a fashion model's size But when I start to tell them They think I'm telling lies. I say it's in The reach of my arms The stride in my step The curl of my lips. I am a woman Phenomenally. Phenomenal woman That's me.

We brought change because we succeeded at reaching our target and our public. This campaign was seen by 75% of people in the 14/40 age bracket. It also reached younger and older populations, including men. An independent study performed by Kantar showed that 3.9 million women reacted to the campaign. It gave them food for thought and sparked a shift in their mind set. In addition, 2.9 million women have become more active or have begun some form of physical activity. 1.5 million of these women resumed sports after having stopped for years.

We are also proud that our campaign crossed our borders into 110 other countries worldwide, popping up as leading trends on Google, Twitter, You tube, etc. Since its launching on January 7th 2015, social media has relayed discussions on the topic, even at Christmas and New Year's.

We are extremely proud. But we know there is still a lot of work to be done. More specifically, there is still a 2-million person gap between men and women concerning participation in sports. Though the gap is closing, we still have a lot of work to do to encourage everyone to practice sports.

Alex TAYLOR

Thank you. The project reminds me of an overweight English comedian. She performed many skits on the subject, notably one about pools. She filmed herself swimming, which through humor, enabled many women to let go of their guilt and gave them the selfconfidence to go swimming.

Mike DIAPER

Exactly. It doesn't matter if we're quick or not, or if we look ridiculous, etc. What matters is being active and celebrating our bodies.

Alex TAYLOR

The comedian in question recorded a video of her swimming with a synchronized swimming team. It was comical, but it also drew attention and people changed their habits.

Prof. Dr. Giancarlo CONDELLO

Department of Movement, Human Sciences and Health, Human Movement and Sports Sciences Division, University of Rome "Foro Italico"

I want to thank everyone, especially the organizers, for this wonderful conference. We come from different countries, but today we speak the same language. I am an academic, and therefore, I have participated in research work. I would like to talk about a European study that reveals the determining factors of diet and physical activity.

The study is rooted in a question raised by the European Commission. The Commission identified numerous works based on physical activity, health promotion, sports and the benefits of exercise. However, sedentary behaviors continue to dominate in Europe and populations are still too often inactive.

For this reason, over a three-year period, we participated in a multi-disciplinary consortium called Determinants of Diet and Physical Activity (DEDIPAC). It mobilized more than 300 researchers from 12 different European countries and 68 research centers or universities. 12 million euros were invested in the project. We examined the factors that foster or inhibit certain behaviors. More specifically, we studied, in detail, physical activity, diet and sedentary behaviors. We wanted to better understand the determinants of dietary habits, physical activity and sedentary behaviors. Through a multi-disciplinary approach, we addressed these questions on an individual and population-wide level.

The consortium was structured around three thematic areas:

- Measures and methods;
- Determinants;
- Interventions and policies to enact.

I suggest we concentrate on the second point, the determinants, in which I took a special interest. We used an "Umbrella" approach to analyze a collection of experimental evidence, allowing us to take stock of all the relevant published scientific literature. We also evaluated the quality of past studies, the importance of determinants, and the strength of scientific evidence and arguments. Concept mapping diagrams helped us examine expert opinions about the determinants.

In this way, we evaluated 293 determinants across a life course. We found that there were few factors linked to solid arguments. There are also socio-economic, stress, socio-cultural and physical environment aspects involved. As for the other determinants, we do not have conclusive evidence. What we needed was an in-depth analysis of the determinants.

Examining the scientific articles revealed only a small number of compelling arguments for certain determinants. Consequently, we took a closer look at them. We found that arguments were based on cross-sectional experimental design. But to obtain solid evidence, future projects should be based on prospective, longitudinal studies.

We developed a European framework for physical activity determinants. 79 multidisciplinary European experts, universities and research centre members were asked to analyze the determinants. The goal was to gather similar factors in small groups. Their additional task was to record the determinants and define the number of individuals potentially involved. We can identify two realms: personal sphere and social sphere.

What's more, we addressed each determinant's research priorities. The environment was a major determinant, and thus will be a research priority. We needed to study the determinants in each group, such as internet use for the younger population, and mobility and transportation for the older generations.

For future research projects, we will need more trans-disciplinary involvement and cooperation from different European platforms. You can visit our website to find 39 published articles on the subject. You'll find detailed information about determinants of dietary, physical activity and sedentary behavior. You can also read introduction and conclusion reports that provide details about the project's financing and how it was used.

Thank you for your attention.

Alex TAYLOR

Thank you for that very detailed presentation of your research work.

Questions/answers

Alex TAYLOR

The birth of the "This girl can" campaign is interesting, but it probably required financial investment.

Mike DIAPER

Yes. 18 million pounds were invested, the equivalent of a little more than 20 million euros, which is quite substantial. The biggest challenge was obtaining approval from our authorities to invest in the television campaign. Our organization functions through mutual agreement. So we are not supposed to have a lot of autonomy. Yet, we were successful. Our authorities were not accustomed to this type of initiative because no one had done it before. We had to find real-life, authentic women who agreed to participate and be the face of this campaign. We encountered many women throughout the country in order to develop the campaign and its messages.

Alex TAYLOR

How did you find them?

Mike DIAPER

Sometimes we questioned joggers in the streets, formed focus groups, met with youth groups, and visited pubs and clubs, etc.

Alex TAYLOR

Do you think you could do the same thing with men?

Mike DIAPER

Men's' participation in sports is evolving, but it isn't a priority. Low-income individuals are our priority because, statistically, they are two times more likely to be inactive.

Thanks to the "This girl can" campaign, we interacted with a lot of people, notably men and families.

Alex TAYLOR

The campaign was a resounding success. In hindsight, do you have any regrets?

Mike DIAPER

We most certainly made many mistakes. We began working with clubs and recreational centers six months before the campaign started. The women who decided to resume sports

as a result of the campaign did not always receive a warm welcome from sports and recreational centers. For the campaign's second cycle, we'll start working with clubs and recreational centers earlier to bring awareness about the campaign and prepare them for an eventual surge.

Alex TAYLOR

Giancarlo, have you heard of any other interesting initiatives in Italy?

Giancarlo CONDELLO

Yes. Italy largely participated in this research work, but many other initiatives are worth citing, especially those promoting physical activity throughout the country. For example, this morning our colleague spoke to us about the walking bus, an initiative that targets children. It aims to motivate children to walk to school instead of systematically taking the bus. Many volunteers participated in these initiatives. We need them.

Another measure stems from the notion of social responsibility as a company.

As for me, I'm part of another project that aims to improve physical education for youth in primary schools. As a joint measure, it unites companies, universities and schools to promote physical activity for everyone in Italy. And not just for children. It's not a project specifically for Italy, but rather should have an international impact.

There are also cross-sectoral initiatives. For example, I'm thinking of a project directed at children and led by a foundation in southern Italy. Many projects use sports as a tool for social inclusion.

Alex TAYLOR

Do you think the campaign led by Mike DIAPER in the United Kingdom could be a success in Italy given that campaigns should be tailored to their public? For example, a few years ago, Kodak launched country-specific campaigns, unlike Apple.

Giancarlo CONDELLO

I think it would work in Italy. Those initiatives are similar to those of my colleagues. There's an initiative developed in central Italy that links practicing sports and cancer prevention.

From the audience:

I have a question for each of you.

Giancarlo, you use the internet to spread information, but we know that internet use is time-consuming and compromises physical activity. How do you balance these two realities?

Giancarlo CONDELLO

The internet and emerging technologies cover two aspects. The first is harmful: Screens are omnipresent; we have increased sedentary behavior, etc. But in today's world, we can't ignore the possibilities. In reality, emerging technologies allow us to accomplish many things in the field of teaching and education.

From the audience:

Using new technologies is inevitable. Used in a positive way, they allow us to reach a larger public, especially youth. We can benefit from them.

From the audience:

Mike, I admire your campaign's success. I don't know how you did it. Your campaign has undoubtedly changed the face of your country and sports in England. The Olympic Games came to London in 2012. What advice do you have for us for the 2024 Olympic Games?

Mike DIAPER

We would love to help you. Our respective Ministers have signed a Memorandum of Understanding to foster cooperation on the issue of sports. We addressed the consequences of 2012 a bit too late. We should have begun two or three years before 2010. The Olympic Games is an incredible showcase for sports. Perhaps our country is not the most athletic in every discipline, such as handball. But after the Olympic Games, people wanted to practice sports and we didn't have the amenities. We posted an on-line brochure which explained the principles of handball. Unfortunately, we should have done this before and better. Also, Britain's gymnastic team performed well during the Olympic Games, and as a result, hundreds of young people wanted to give the sport a try. We need to be prepared for these types of situations. I advise France to start right now. We wanted the population to practice more sports, and they did. In 2013, six months after the Games, we noticed the change. However, six months later, sports activity declined, then picked up again. This shows that we should not get discouraged in the face of dropping figures. Between the moment we won the bid for the Olympic Games and 2016, 1.9 million more people signed up to sports. We need to encourage people, supply the facilities to practice sports and lay solid groundwork.

Addressing your public is vital. For example, Australia launched a "This girl can" campaign, but it differs greatly from ours.

Alex TAYLOR

How is it different?

Mike DIAPER

The illustrations are very different. Their motivations were also different. Australians are conscious of their strong sports culture. In England, we are still a bit timid. It's important to understand your country's unique cultural hindrances to practicing sports and act accordingly.

From the audience:

I work on prevention issues and am interested in the various models that help develop these types of projects. Mike, I find your campaign's results fascinating. You successfully led a powerful media campaign that changed social norms.

Over time, we have observed a drop in peoples' willingness to practice sports. My question brings us to the determinants we talked about. You also mentioned the £18 million needed for your campaign. In France, it's definitely easier to launch a media campaign because elected officials appreciate the visibility. However, we struggle for real, on-theground, environmental changes that encourage practicing sports.

Media campaigns often tend to deepen inequalities. It's easier to engage middle and upper classes to change their behavior. Does that match what you found?

Mike DIAPER

Yes, we identified a bias in women with average incomes, but we were able to reach them. This year, we will be launching a third phase of the campaign, incorporating images of these women without being condescending. We will also provide profiles of champions that explain their daily lives. In addition, the campaign's second phase showed us that we needed to help women overcome their fear of being judged. That fear can be paralyzing after just one bad experience at a sports club. Encouraging these women is a daily battle.

We invested a large amount of money, notably in recreational centers and sports clubs. Jogging with friends, fitness classes and biking are the most popular activities today.

Alex TAYLOR

Thanks to both of you, Mike and Giancarlo.

Let's move on to the last round table where we will compare the situations in France and Finland.

Panel 4 : Finland and France 🛨 🕕

Prof. Tommi VASANKARI UKK Institute for Health Promotion Research

It's my great pleasure to be with all of you today. I'll try and give you a quick overview of one specific initiative that aims to promote physical activity.

Yesterday, we issued a communication on the cost of inactivity in Finland, in terms of health, loss of productivity, care for the elderly, mobility, etc. We invested a year and a half into this project. We were able to extract a high level of detail using several cohorts and different data repositories.

The cost of inactivity represents between 3.2 and 7.5 billion euros for Finnish society. That's an enormous amount of money, even if our evaluations are not 100% accurate. The majority of these costs were calculated in various ways, with several cross-checks to ensure the certainty of the results.

The announcements were released yesterday and today we have feedback. Three insurance providers have already suggested strategies to adopt in this field.

So I encourage you to run this kind of study in your countries. I've been working in Finland in this field for 15 years and this economic data has real game-changing power in my country.

In relation to physical activity, today we've examined actions taken over the past years concerning lifestyle. In 2011, we measured sample populations to evaluate their specific levels of activity and inactivity. Since then, each year, we have conducted experiments, with campaigns devoted to collecting data. Today, we have a more detailed knowledge about the level of inactivity and activity for different age groups.

We spend on average 60% of our time sitting. Light physical activity represents 18% of our time, and moderate and intense activities 6% to 7%. Children represented 1/5 of our samples. Older children are more sedentary, but as the study evolves, we identify differences. Certain children are very active, but more importantly, there were significant discrepancies. Therefore, we will adopt different measures according to children's age and profiles. The discrepancies are much greater than what we had imagined at the outset.

How do we use this information once we know peoples' level of activity? A one-week old measure provides data scientists can use. However, we preferred to collect information online so that individuals can look at what interests them the most. Health professionals can visualize important patient information.

To encourage physical activity in schools, our government launched a project called VESOTE. Over a three-year period, 20 million euros is invested in this project. The project is highly appreciated and more than 94% of Finland's schools are labeled VESOTE. Our institute conducted an on-the-ground analysis of the project.

Another one of Finland's flagship health projects studied 3.9 million individuals. It gave lifestyle guidelines based on examinations of the following three aspects of people's lives:

- physical activity
- diet
- sleeping habits

The project involved hospital district directors, municipal leaders and health professionals. Their goal was to work together very closely in a multi-sectoral approach. One of the project's key Ministers stated that, from now on, everyone must participate. We

organized several regional seminars in Finland, and webinars and conferences on-line. They addressed orientation and education on lifestyle. We also created virtual policlinics dealing with lifestyle. They were information tools about activities and local structures. We set up patient progress tools, giving guidance and advice on physical activity.

And finally, we wanted to objectively measure lifestyle. To find out about my sedentary behavior, you'll ask me questions to which I will respond. However, in some cases, the doctor knows the patient is not being truthful. How can we change this situation and make studies more objective? We conducted three randomized trials. One involved individuals who suffered from sleeping disorders, and the other looked at heart disease. We gave half of the patients set to undergo heart surgery an interactive accelerator. It was placed on their waists during waking hours and on their wrist during sleep. An application tracked the number of steps and resting time. The data was uploaded into the cloud, then sent to the hospital system. Consequently, at the following patient-doctor meeting, accurate data was available. Among other things, the study enabled us to learn about post-surgery sleep patterns in patients with heart disease. It provided average values data according to pathologies. We were able to define normal values and those that represent pathologies, either in sleeping behavior or physical activity.

Algorithms and accelerators were used to measure physical activity and patients can view the data on their smartphone. Finland's evolving health system receives the same data.

For example, doctors know which patients suffering from heart disease require regular visits and which are in good health. We now have objective data that simplifies the task of issuing guidelines. This type of information can make a real difference in patients' lives. We ran this project in ten hospital districts. It's going to change the way we tackle the issues linked to lifestyle.

Jean-François TOUSSAINT Director of the Sport Epidemiology and Biomedical Research Institute (IRMES)

Thank you, Tommi. It's highly satisfying to see that tools can change our view from a medical standpoint. There is also a contextual shift in France since the new Health law was passed in 2016. As of now, doctors use a much broader scope of information to improve daily care, increasing their influence on patient behavior. In France, the Minister of Sports, Valérie Fourneyron, provided a key element in this regard.

Since 2015, in places like Chartres and Caen, we've noticed a shift in hospital organization. The Hôtel-Dieu set up a new unit in 2016. More specifically, the hospital drew up a sports and physical activity protocol for patients in cardiology, oncology or for those afflicted with the AIDS virus. These actions are changing the landscape of medical responses, including non-pharmaceutical therapy.

Associations also play a key role, notably patient associations devoted to follow-up care, for oncology. Cities and regions also play a role. Since 2012, Strasbourg's new approach has benefited 1,400 patients, with 300 doctors participating in the initiative. Numerous activities have been proposed and the project is currently in the evaluation phase to determine the volume of physical activity practiced during the project's lifecycle. In Biarritz, family doctors prescribed physical activities, in particular to individuals with chronic diseases. And why not finance these types of initiatives? It could encourage other actors to participate in the prevention program. Large networks of professionals such as dieticians and sports educators are working within the sports and health arenas. Their goal is primary prevention for sedentary individuals.

The French National Olympic and Sports Committee also contributed to the effort with their former Olympic Champion and Sports Minister, Alain Calmat. He worked on ways we can incorporate the different disciplines of sports into our daily lives. In so doing, we improve our oxygen consumption, cardiac performance and general health.

Evaluation is a central theme. A protocol allows actors to participate and improve patient care.

Financing is also a problem that requires study. Other points that require attention are training in medical schools and labeling or certifications to create networks of professionals.

Questions/answers

Alex TAYLOR

I want thank both of you for your striking examples. Does anyone have questions for our two guests?

I have one general question. We have seen here today many interesting initiatives, campaigns, videos, etc. There are so many ideas. This is our first international meeting of this nature, but how can we compare the different countries? Today's conference gives us a part of the answer. But beyond that, do the different countries attempt to learn from each other, and share good ideas and best practices?

Tommi VASANKARI

That's exactly what we do. Many of us are references for the European Commission. We work in tandem and take turns learning about what has been achieved in the other member

states. For example, this morning I received an email from a Norwegian colleague who asked for a publication on our project's costs.

Jean-François TOUSSAINT

Europe is experiencing a multi-faceted crisis, Brexit being one of them. However, how do we identify the good examples and continue working together? Many countries have unique patterns and contexts that cannot be generally applied on a European scale. However, if we come together and exchange to create networks, we'll be able to construct a European building block. Indeed, we are aware of the dangers that threaten us and the ways we can stop them together.

Alex TAYLOR

Mike Diaper, you had difficulty obtaining the green light from United Kingdom authorities. Is this the case in other countries? It's true, sometimes we need financing and authorizations. It's difficult to tackle a cause without political leverage.

Tommi VASANKARI

In Finland, it was rather easy, though we did need to present convincing arguments. We are a small country with less than 6 million inhabitants. That makes it easy to spread ideas through the media. However, convincing elected officials requires compelling arguments. We have to show that the project is relevant and saves money. In Finland, it's easy to meet with Ministers. Currently, if we feel a topic deserves to be addressed differently, especially in light of the economic issues we've discussed, we can present it to politicians. To do so, we have to provide arguments and data. In Finland, it's vital to know the men and women who make decisions, but I imagine this is true elsewhere. Nevertheless, cost is still a central theme.

Alex TAYLOR

Tommi, you know how to create a buzz. We saw that last year when you were swarmed by journalists at the Helsinki airport following a conference.

Jean-François TOUSSAINT

Essentially, every action should rely on scientific expertise, because you have to show that what you're doing will produce results. Nevertheless, policy is not on the same time line as actions or processes. We never have more than four or five years to launch a project. Cycles of this length are what prevail in the political arena. The arrival of a new government or Minister means re-educating, whatever the topic. The education sector is a prime example of this.

Alex TAYLOR

Thank you, Tommi and Jean-François, our last duo. Now, I would like to ask each participant to tell us what message they have retained today. Please suggest ideas for future initiatives for your country or for Europe.

Conclusion

Ute Winkler

I believe that there isn't one single approach or method that works for everyone. We need a range of different initiatives. We need cross-sector approaches that will guarantee long-term change. We also need a long-term vision because these changes won't happen overnight.

Naturally we have to persuade elected officials, which is no easy task. It was encouraging to hear European perspectives this afternoon. We are from different countries, with different cultures and contexts, but that should only increase our determination to work together. I hope that this work will help us change our behaviour and our experimental initiatives, and will give us additional arguments to convince politicians. I will be telling my Minister for Health that great projects are under way on the other side of the Rhine. We might be able to draw inspiration from them, because when politicians launch projects, they find it reassuring to know they're already working elsewhere.

Paulo Rocha

I would like to mention three things. First, we cannot separate ourselves from the European level. Numerous large-scale projects are under way at that level, but no one knows about them. Two weeks ago, at our latest meeting with the commissioners, we were on the point of approving a new platform which would present all the work supported by the Commission, because there are so many programs that the Commission sometimes finances multiple similar projects. So we need to be better organized, so we can list all the programs, by creating a Chamber for Compensation on the Australian model.

We also need to encourage people to share good information.

And we need to get insurers involved. As a Portuguese citizen and a European civil servant, I will be keeping a very close eye on these trends.

Giancarlo Condello

For my part, I would like to highlight four things today: research, cooperation, distribution and promotion. Research must be done appropriately, with harmonized measurement and assessment methods. In Europe, we also need to use the right definitions in our work. To that end, cooperation among research platforms will be helpful. We also need to publicize what we do, so that our knowledge and reports don't go to waste. It is important to be a part of Europe.

Hans Savelberg

As a researcher, my takeaway from this day is that the question before us is not that of knowledge. We have knowledge and are working to maintain it, as the speaker from Finland showed. The use of data is the future of medicine. The most important thing is finding ways to convince the public to use these resources. We should highlight examples, to get people talking and working together.

Mike Diaper

None of us claims to have the solution. But together, we have a part of the solution. I find that very encouraging. I agree with our German colleague: we need to look at the long term. Changing behaviours will take five to seven years.

I also think it is essential to share. Despite Brexit, many people in England are committed to sharing, and I hope that we will remain close.

Luigi Di Falco

Next week, I'm going to buy an elliptical and put it in my office!

More broadly, today we heard that prevention requires implementing a framework and processes, which today are sometimes too top-down rather than bottom-up. People need to be more aware of the consequences of an overly sedentary lifestyle and inadequate activity levels.

The government, private institutions and associations need to support activities and a framework for prevention. As insurers, we know that we are a part of that community and ecosystem. We can serve our customers by explaining that, if they make the right choices in their daily lives, we will help them. Healthier lifestyles will decrease health risks, with a positive impact on our policies.

Tommi Vasankari

All the important things have already been said. We are facing a difficult time. Together, and with the European Union, we can change things. It's not easy, because there are a lot of obstacles. In Finland, 75% of the population is inactive. So we have a lot of room to improve. However, if we work together and draw on the projects described today, we can change those numbers. That work will require very close cooperation between countries.

Today, one of the things we talked about was insurance. Following the announcement we made in Finland yesterday, insurance companies posted some very interesting comments, particularly about costs. In certain areas, we have not yet looked at how we could take new approaches to fight inactivity. Cooperation among countries and institutions is very important, and represents the future of support for inactive populations. The same model won't work everywhere, but cooperation remains very important.

Jean-François Toussaint

Before I hand the microphone over to Norbert Bontemps, I would like to thank him, as well as Patrick Jacquot, Patricia Maugan and Nathalie Irisson, for everything they made it possible for us to do today. Mike, you were asking if you would still be a part of the group. Yes, you are, but the question before us today is: "What should we do?" Tommi has just told us what we could do and how we could do it.

For my part, I think that youth, the environment (human as well as physical and cultural) and outlook are the 3 key points we must work on to improve quality of life through sport and physical activity. From our point of view in France, the outlook is the 2024 Olympics. If we can draw on all of these European experiments, they will be a tremendous resource for us. One of the slogans of the 2024 Olympics is "made for sharing." So come and share! That's what we did today; Our work will make it possible to propose numerous ways to improve. I would like to thank all of our speakers today for that, and for all their contributions to these exciting questions. Thank you all.

Conclusions and outlook

Norbert Bontemps President of the Attitude Prévention Health Commission

I hope you all enjoyed this great day as much as I did. At Attitude Prévention, this was our first time dedicating a whole day to preventive healthcare at the European level with a focus on physical activity. It went pretty well for a first time! I would particularly like to thank Patricia and Nathalie, who did so much to make our event a success.

I would also like to thank all of our participants and speakers who came from other European countries - particularly given that it isn't easy to get to Paris right now! Fortunately, we were spared this time... Thank you all for coming. I would also like to thank all of the participants for your many questions.

I found our discussions of the importance of education particularly interesting. There are a lot of resources in that area. When it comes to physical activity, education is important because we have to lead a transformation. Our educational efforts must target politicians, but also - and above all- people;

When it comes to insurers, I appreciated Paulo Rocha's suggestions that we should work on integrating positive, constructive, non-punitive prevention. Insurers are one link in the chain. They have constant opportunities to interact with insurance customers in certain areas. Attitude Prévention is a cross-cutting organization. For example, in our discussions we have noticed that preventing obesity also means making mobility safe. We are also working on road risk. All of these synergies are positive signs that can help us progress.

Each of you identified things to work on in more depth once you are back home. This was our first time. I hope it won't be the last, and that there will be a second time, in Paris or elsewhere.

Thank you all for a great day.