

# A Good Practice Guide

SEPTEMBER 2016



## **...for an Effective Intervention to Promote Healthy and Active Ageing**

*For fitness, health and sport trainers, club owners, and other organisations involved in promoting physical activity and active ageing*

## Preface – Sir Graham Watson, President of EuropeActive

Whilst many people fully acknowledge the dangers and consequences of an unhealthy lifestyle, and intend to improve the situation there is a long way from good intentions and words to real and effective action. With a high level of relapse from good habits and low initiative even from apparently healthy people, let alone those affected by diseases and of old age, the question to ask is “what can we do to make people adopt and maintain a healthy lifestyle, without losing most of them on the way”?

This Good Practice Guide sets out the strategies and considerations in a series of recommendations based on real experiences of getting older adults to become more active. The Guide tackles key components of a health-related behaviour change through exercise, and lifestyle adaptation. Whilst handling with care every individual case of behaviour change, fitness, health and sport professionals will need to remember how to show appreciation for achievement and to have strategies to mitigate natural relapse to bad habits and for people to find excuses to stop exercising. The adoption of a healthy lifestyle should not be an initiative based on fear, guilt, or even regret as it often is. Its success and duration lies in a combined formula of self-efficacy, realistic and specific targets, and indispensable positive thinking.

This Guide explains how a specially tailored 6-week intervention programme can become the start point for inactive older adults to change their lifestyles and to remain more active. The Guide is based on our real experiences of the PAHA project in active ageing and is aimed at preparing key workers such as personal trainers and sport coaches to put together their own intervention programmes within their local communities. EuropeActive believes that health-compromising behaviour can, and should be diminished, with the help of self-initiated efforts and good professional assistance based on the recommendation of this Guide. A central aim is to reduce whatever stops older adults from adopting a healthy life-style and establish new, long-term behavioural patterns that will lead them to healthier active ageing.

We urge all actors in the area of promoting health-enhancing physical activity to make sure that the programme is properly evidenced, so that the results can be used to gather supporting information on what interventions work, and why. We all need to cooperate to help to turn the tide of inactivity.

The PAHA project was co-funded by the European Commission through the Erasmus+ Programme and we are grateful for their support and commitment to EuropeActive to undertake this important piece of work that we hope provides the basis for many more successful interventions.

Yours actively,

Sir Graham Watson  
President, EuropeActive



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# 1. Context of the importance of promoting active ageing

There may be many reasons why fitness and sport clubs want to increase their membership, the usage of their facilities, or to improve community relations, but this good practice guide focuses on one aspect only. That is the urgent need to increase activity levels for older adults across Europe through promoting health-enhancing physical activity in a structured programme that is evidence-based and realistic. If a local intervention to promote physical activity to inactive people is successful some other benefits to the sport and fitness club are sure to follow.

Europe faces a serious demographic challenge. Each year the life expectancy in the old continent increases by three months, and the number of people aged 65+ will double over the next 50 years, putting an enormous pressure on our health care and social security systems.

At the same time, it is now known that inactivity is the fourth biggest killer in the world. The detriments caused by the lack of physical activity are well recorded, as are the significant economic costs associated with sedentary lifestyles. Disease prevention and health promotion through physical activity can help Europe's older generations to remain independent and maintain a good quality of life for as long as possible. Many adults aged 65 and over spend on average 10 hours or more each day sitting or lying down, making them the most sedentary age group. They're paying a high price for their inactivity, with higher rates of falls, obesity, heart disease and early death compared with the general population.

## Inactivity imposes economic costs of €80.4 billion per year to the EU

Inactivity imposes economic costs of €80.4 billion per year to the EU, 28 through four major non-communicable diseases (coronary heart disease, Type II diabetes, colorectal and breast cancer), and through the indirect costs of inactivity related mood and anxiety disorders. This is equivalent to 6.2% of all European health spending. Across Europe, inactivity's contribution to all-cause mortality amounts to over 500,000 deaths per year – deaths which be averted through enabling and encouraging all Europeans to achieve lifestyles which involve the recommended levels of physical activity.

It is well-established that exercise at any age is necessary for a person to maintain strength, balance, co-ordination, mobility and stamina. Moreover, it can help older citizens remain independent longer and potentially postpone the need for long-term care, improving the sustainability and efficiency of care systems. Poor health is not an inevitable consequence of ageing.

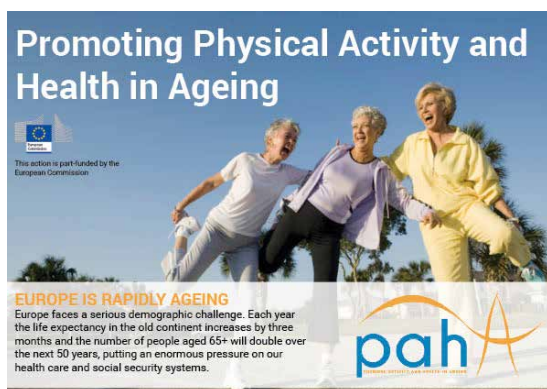
Under the Erasmus+ Programme EuropeActive was co-funded to deliver a structured programme with its partners to encourage currently inactive older adults to start exercising at a level that would be beneficial to their health – and after the programme for them to maintain these levels of activity. The project was called PAHA and is described below.

## 2. Promoting Physical Activity and Health in Ageing (the PAHA project)

**Erasmus+ Collaborative Partnership Promoting Physical Activity and Health in Ageing (PAHA)  
Number 557041-EPP-1-2014-1-BE-SPO-SCP 3**

The Promoting Physical Activity and Health in Ageing (PAHA) project was a tailored intervention for older adults with different functional capacities, but who were classified as being “inactive” when using World Health Organisation guidelines. Through supervised and structured exercise programmes for selected senior citizens (55-65 years old), the PAHA project set about to convert currently inactive people into regular exercisers at a level that was beneficial to their health, and which would support the EU Guidelines on Physical Activity.

There were 7 project partner countries –



**Finland  
Germany  
Greece  
Hungary  
Ireland  
Portugal  
United Kingdom**

and by special arrangement in **Denmark**. In each country 3 fitness centres ran specially designed trial sessions of supervised exercise programmes of 6 weeks duration.

The personal trainers who supervised the delivery of the exercise sessions went through some additional technical training (in active ageing) and also in behavioural and motivational techniques so that they could close adapt the programmes to suit each of the new clients taking part in the trial sessions.

Participation in the trial periods was offered free of charge, and the older adults who took part were then re-assessed at 3 months and 6 months intervals to determine if the programme had been an effective intervention, and that they had maintained activity levels which were beneficial to their health. The focus of the project was to make sure that within the 6 week trials the individuals would experience the positive benefits of regular exercise so that they would voluntarily maintain a healthy lifestyle. The considerations of the benefits and motivation for older adults to exercise can include:

- Sleeping better
- Having more energy
- Reducing the symptoms of disease,
- Maintaining an independent lifestyle
- Keeping up with the grandchildren
- Extending a working life

This Good Practice Guide is based on the successful outcomes of the PAHA project and it is intended that the principles of the intervention can be used in many other recreational sporting settings.



With the support of the  
Erasmus+ Sport Programme  
of the European Union

## 2.1 The PAHA results - summary

A group of 1,080 inactive subjects 55 to 65 years old was targeted to be involved in the project. A total of 669 participants (382 females and 287 males) from 8 different European countries were enrolled in the project. These results mean an adoption rate of 62% recruitment, improving significantly expected figures from previous research studies in community-based interventions with inactive populations, and especially in this population group (a recent project in UK “getukactive study” reported that a total of 1,146 participants were recruited against a target of 2,080, with an adoption rate of 55%, Mann et al., 2016).

A subgroup of 208 participants (121 females and 87 males), accounting for 32% of the total intervention group used advanced physical activity tracking technology (MyWellness™ key), during the length of the project. This subgroup was receiving the intervention in 8 of the 24 fitness centres participating in the project and uploading the data in a special module within the MyWellness Cloud supplied by Technogym.

The research team did not try to maintain participant numbers through any form of incentives, motivational prompts, communications, etc., different to the PAHA intervention proposed model (an innovative educational programme for personal trainers to support and facilitate the behavioural change of participants by integrating behavioural change tools, exercise counselling and tailored exercise prescription during a simple and replicable 6-weeks intervention programme for ageing inactive participants).

Completion of the 6-weeks intervention programme was achieved by the 89% of participants, with better results in the subsample that used accelerometers to track activity levels (96% versus 82%).

One of the main aims of the project was to get 20% of the participants still exercising to the benefit of their health 3 months after they completed their 6-weeks trial sessions. The results coming from the tracked activity group are especially remarkable with an adherence rate of 78%, compared to 62% of the rest of participants.

One of the most valuable outcomes coming from the project is the fact that the combination of motivational exercise counselling and supervision and the use of technology is allowing for effective collection and analysis of active behaviour data. As a result, the figure included below (figure 1) is presenting evidences of the impact of the intervention in 32% of the participants, with detailed values of average daily physical activity at different intensity levels.

The data, as it is displayed in figure 1, is extremely significant. Participants on average have moved for 35 minutes at moderate intensity and almost 7 min at high intensity physical activity (a total of 42 minutes per day). These values far exceed the WHO/EU recommendations for being considered moderately active (150 minutes/week that correspond to about 21 minutes/day). Participants of the PAHA project (those that downloaded the data), were almost twice as active as the minimum requirements.

55+ age group who never engage in any physical activity” (Eurobarometer)

40%

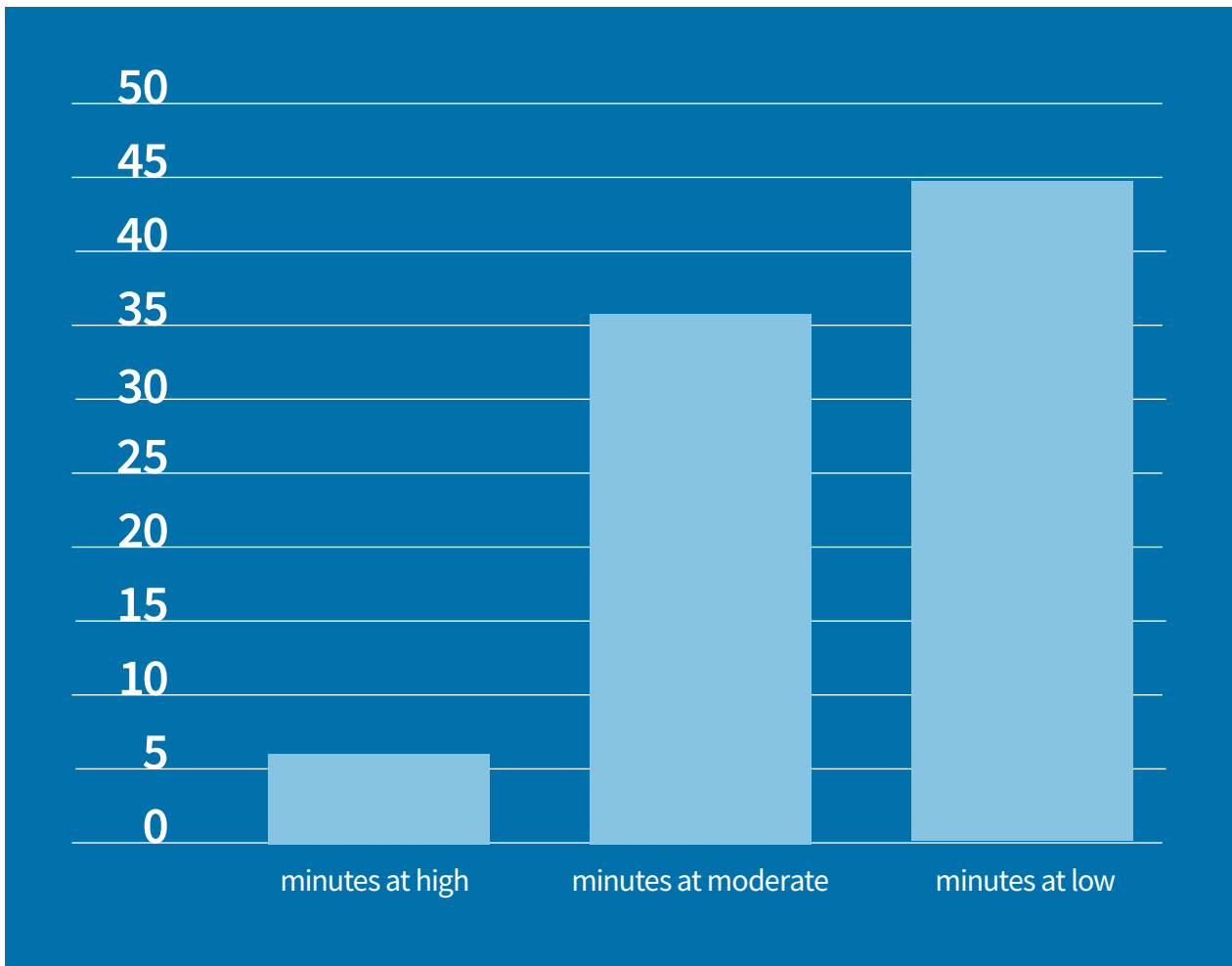


Figure 1  
 Minutes of daily physical activity and exercise from the subsample of participants using accelerometers (n=208); high intensity (more than 6METs); moderate intensity (between 3 and 6 METs); low intensity (less than 3 METs). *he data represents basically what subjects have done, on average, across the 6 weeks of the study. The vast majority of the data comes from physical activity; some subjects have also some data of structured exercise.*

<sup>1</sup> MANN, S., JIMENEZ, A., DOMONE, S. BEEDIE, C. Comparative effects of three 48-week community-based physical activity and exercise interventions on aerobic capacity, total cholesterol and mean arterial blood pressure. *BMJ Open Sport Exerc Med* 2016; 2:e000105. doi:10.1136/bmjsem-2015-000105

55+ age group who regularly engage in any physical activity” (Eurobarometer)

14%







### 3. What are the principles of an effective intervention?

Our modern way of living has largely eliminated physical activity as one of the fundamental parts of our lives. The growth of non-communicable lifestyle diseases and the epidemic in obesity provide clear evidence of the imbalance between our lifestyles and our physical requirements. Physical inactivity is a state of relative physical rest, which does not provide sufficient stimulus for human organs to maintain their normal structures, functions and regulations. Physical inactivity has become a major risk factor for chronic non-communicable diseases. Epidemiological research has proven that 15–20% of the overall risk for coronary heart disease, type 2 diabetes, colon cancer, breast cancer and fractured hips in the elderly is attributable to physical inactivity.

Participation in physical activity and exercise can result in desirable health outcomes in terms of both acute and chronic adaptations in the physiological and psychological domains. Physical activity, exercise, health and the quality of life are closely interconnected, as the human body was designed to move and therefore needs regular physical activity in order to function optimally and to avoid illness.

There are numerous key concepts, elements, factors and theories regarding motivation and behavioural change, and it is important to offer an evidence-based and practical approach to exercise and sport professionals in helping their clients and customers to deal with a significant challenge to become more active. Understanding behavioural and motivational change is essential to help people to change their lives by being more active and especially more often (as frequency of activity will be the real and critical key factor to improve health status in inactive population). The PAHA project included specific additional training for the fitness instructors in active ageing and motivational change for this reason.

The available evidence from observational studies support the conclusion that physical activity and exercise, performed on a regular basis (as a behaviour), will have protective benefits for several aspects of physical, mental health and general wellbeing. There is strong evidence for their protection against all the chronic pathologies, as well as for symptoms of the major mental disorders such as depression and cognitive decline, anxiety and poor sleep, feelings of distress and fatigue. Thus, current evidence supports the conclusion that regular participation in moderate-to vigorous physical activity and/or exercise, consistent with current public health guidelines, confers physical and mental health benefits when compared to participation in low levels of activity or a sedentary lifestyle.

The best element linked into the health benefits is the fact that exercise means regular practice, a systematic, progressive and tailored stimulus that will improve health status of anyone as a result of frequency of practice. The most updated evidence-based guidelines for exercise from the American College of Sport Medicine employs the frequency (how often), intensity (how hard), time (duration or how long), and type (mode or what kind), with the addition of total volume (amount) and progression (advancement),

formulated as the FITT-VP principle for exercise prescription. Fitness, health or sport professionals play a critical role in addressing specific needs of individuals – and in this case older adults - to offer safe and effective exercise programmes.

Behaviour change is critical to the prevention, management, and treatment of many important health conditions. However, the initiation and maintenance of behaviour change can be very difficult, and even those interventions that succeed in controlled clinical trials do not always scale well. It is not enough for behavioural and social scientists to do rigorous research and develop effective interventions; there must also be delivery channels and systems in place to disseminate these interventions to the public, policymakers, and other decision makers to ensure that they are implemented, adopted, and maintained.

From a behavioural change perspective, it will be easier and more rewarding for an individual to incorporate new behaviour instead of removing existing ones. This is one of the key positive messages to work on with inactive people, adding exercise as a positive behaviour will provide always positive outcomes (if the dose is appropriate to the capacity level of the person and the program allows a progressive increase of the challenge).

Fitness, health and sport professionals have a relevant role to play, and should be ready to meet individual people's expectations. Understanding the implications of health behaviours in the overall exercise intervention will be a key asset to effectively produce significant and sustainable health changes in inactive populations. Specific, tailored, and very simple and applied approaches to modify behaviours should be integrated in health behaviour programmes, for example in exercise interventions.

A positive combination of physical activity (i.e. as a mean of transportation) and individualised exercise doses, addressing specific needs and limitations of the individuals, will provide the kind of engaging and positive stimulus to help inactive population to change behaviour.



***What a great sporting summer 2016 was with Euro2016, and Rio de Janeiro and the spectacular Olympics and Para Olympics. It's amazing to watch these huge and important sporting events as they bring happiness and fun to so many and so different people around the world.***

***The most important thing is the day after they have ended and whether we will use the inspiration of these events to shift to a more active and healthy lifestyle. Getting older is probably one of the greatest achievements of mankind and all the stakeholders within fitness really should investing in programmes, education and efforts to keep the pace. At the European fitness industry, we literally deal with Olympic challenges every day in more than 50,000 fitness facilities and our dream is to offer medals to every citizen old and young, and not only super athletes.***

***Armando Moreira, Diretor geral na AGAP - Associação de Ginásios de Portugal***

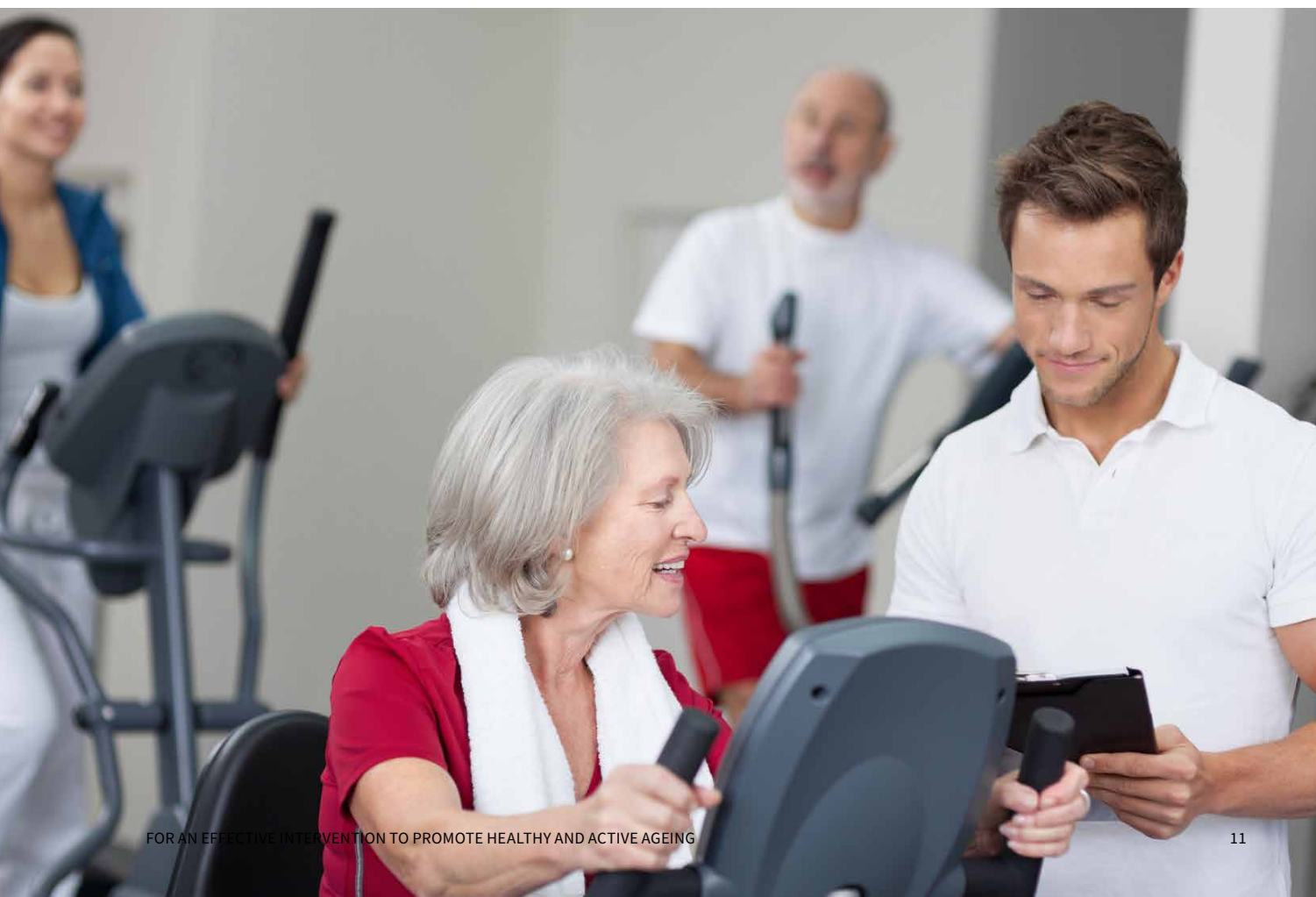
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## 4. The need for careful pre-planning and understanding your market

One of the single most important lessons from the PAHA project was the need to do some careful planning before starting any proposed intervention or field trial. Inactive people generally have good reasons (excuses) for why they are not already active. Even though the message of the importance to maintain a healthy lifestyle is now so wide-spread that it doesn't need further reinforcing in itself – it still needs a special approach for these people to take the first step and to accept that they need to “do something”.

Early preparation to build a picture of the intervention and how it can be resourced and accessed is necessary, and this may take a long time before the time is right to actually build or contemplate starting the action itself. There are a number of considerations for pre-planning which may include:

- ✓ Local conditions – are there initiatives to promote health-enhancing physical activity (HEPA), special funding allocations, community sponsors or other factors which may influence the decision of some people to consider changing their attitudes and show a willingness to consider starting a programme of activity and exercise.
- ✓ Publicity may well be required (in fact, this is probably highly likely), to spark initial interest, so what are the considerations to promote this new action – what is expected, who are the people involved, what are the commitments, the risks and possible, hopeful successes? Are there rewards for completing the trial sessions?



- ✓ Who are the inactive older adults that are the main target to be taken into the programme? Where are these people, how will they be reached?
- ✓ Who are the people who are going to be involved in delivering the action? Is there a team of players with the right skills who can promote, manage, give professional and confidential support, and to provide the necessary technical training for an effective active ageing programme?
- ✓ Who pays for it? Is a fully-funded programme in place to support the intervention?
- ✓ When might be the best time to run the action – will this suit the potential clients and/or the fitness facility or sport club?
- ✓ Where is the action proposed to take place – is it the right environment and context? Potential clients may not want to be in environments which they might consider too competitive, complex or intimidating.
- ✓ What changing facilities will be provided to help ensure that new exercisers can feel comfortable and not embarrassed if mixing with other people?
- ✓ What might be other considerations such as issues of gender, ethnicity, and disability, cultural or religious respects that need to be properly planned into the new programme?
- ✓ What information is given to existing members and users of the facility or club? How might they be affected or even compromised in the way that they can use “their” club? What explanation may have to be given to ensure existing clients, members and users do not feel that they have been disadvantaged.
- ✓ What is going to be the timing of the action, its location, and the accessibility? Will it suit the club or facility more than the potential clients? It may also be a consideration to have gender-specific sessions.
- ✓ What happens after the intervention – what is the follow-up support and professional services on offer to keep the clients active to a level that will be beneficial to their health?



***A special communication strategy to target elderly people is absolutely necessary. In Hungary, the partner involved a communication expert with a 6-months campaign to find the participants. The budget for marketing and communication needs to be adequately important.***

***Andrea Vermesi, Director of Quality and Learning Innovation, IWI  
International Fitness Education***

These are all principle considerations in the planning, and any consequential cost implications. The other consideration is to be clear about the expected outcome(s) which need to be realistic and achievable. There is no point in “setting the bar too high” if people are being set up to fail or to under-achieve against unrealistic targets.

It is recommended that research is conducted with potential clients to determine which factors are presenting barriers to participation. The managers and instigators of an intervention are not necessarily well-placed to decide on the format of the action – it’s often best to “ask the customer” because it is them who will take the decision to participate in the programme – or not.



## *Case study extract: Hungarian Health and Fitness Association (HFHA)*

The HFHA Project Team made an attempt to identify the root causes (barriers) for the lack of participation by older adults in the trials and found these to be the main points:

A majority of eligible people in the 55-65 age group are still working, and so they are mostly available only in peak hours when they are busy with their lives – and the clubs are busy as well.

There was a perceived cultural and age issue with fitness centre “environment”, and many of the possible clients of this age group were intimidated to go there and exercise in front of others.

Some earlier pre-recruitment process was needed (as would be desired in such trials) and in the end the time available for recruitment was not enough for larger participation.

When we tried to advertise the trial sessions we found that there was a lack of support from the media - they all wanted payment for articles and recruitment calls. We didn’t have a budget established for that.

Some of the potential clients had a lack of willingness to travel from home to fitness centres.

### **The HFHA also commented:**

The PAHA project after the presentation (to a wide range of audition) was welcomed and it raised many interests.

The trial process and training materials were scientifically well composed and used a wide range of primary research recommendations including physical activities, behavioural change processes.

The e-learning platform was a state-of-the-art platform that aided the PTs for learning the adult senior population training and motivation methods. The long-term results and achievements after the follow-up should be shared with the wide public including governmental bodies.

The proposed new intervention is about changing the current behaviour of inactive older adults and so the decisional balance for what type of intervention is proposed contains two main scales of pros and cons for changing behaviour (of currently inactive older adults). There are four dimensions for pros of changing health behaviour:

1. Useful benefits for self;
2. Useful benefits for others;
3. Self-approval; and
4. Approval of others.

There are four dimensions for cons of changing behaviour:

1. Useful losses for self;
2. Useful losses for others;
3. Self-disapproval; and
4. Disapproval of others.

The pros and cons are important for influencing people at an early stage which is called “pre-contemplation”. This is the preparation of whether they are going to make a personal commitment and start exercising and reaction will influence the action stage for early planning and preparation of the intervention. There needs to be clear answers to overcome the barriers and objections – whether they are real, perceived or don’t really exist at all.

To maximize the results of programmes, it might be necessary to use several strategies simultaneously. To create an effective intervention programme that will support potential clients or customers and to maximize their motivation it is advised to check the following list of practical questions in early planning:

- What is the readiness of your target list of clients to participate in the programme?
- What are the specific needs, motives and potential goals of your client? This is a question of what might be used to help “drive” the clients to participate.
- What kind of programme(s) will fit to the needs, motives and goals of the potential clients that have been identified?
- What systems can be set up to monitor different factors that influence the motivation and behavioural change of the different clients that may consider taking part in the intervention?

Within the potential different models that could be planned each will need specific tools to manage the motivation and behavioural change of a potentially diverse group of clients.

**EU recommended levels of physical activity  
can reduce the risk of stroke, diabetes  
and coronary heart disease**



## Case study extract: Johann Wolfgang Goethe-Universität, Germany

“Recruiting inactive people remains a major challenge for all physical activity promotion programmes. According to our experience it is easier to reach and motivate people who are at least a little bit active as opposed to those who are completely inactive. Simply providing information about the existence of a programme e.g. via flyers or posters is unlikely to motivate those who are completely inactive.

Since the programme was offered three times a week it meant a considerable time commitment. Nonetheless about 1/3 of all participants had an adherence rate of 80% or above. Our experience was that the high quality of the courses and the professionalism and enthusiasm of the personal trainers were very strong motivational aspects in keeping the participants in the courses.

Personal trainers did the follow up telephone calls as specified in the project. We assess activity levels during follow up measurements using the International Physical Activity Questionnaire (IPAQ) and also ask participants whether they are still active in an organised form.”

“Specifically tailored courses seem to be attractive for this age group with low activity level. They feel at ease and comfortable that exercise programme is adjusted to their needs and capacities.”

Some of the participants said:

*“I enjoyed the programme immensely! It was exactly what I had been looking for. Neither too easy nor too difficult!”*

*“Our trainer optimally qualified to motivate and keep us going!”*

**-27%**  
Stroke

**-33%**  
Diabetes

**-35%**  
Heart  
Disease

## 5. Additional fitness trainer and sport coach education

The PAHA project selected personal trainers who were already technically competent at instructing and teaching adults in safe and effective exercise, and then provided additional training in active ageing and motivational and behavioural considerations. The materials were developed as units of learning and were made available through an e-learning platform. Each unit was backed by a knowledge test that had to be successfully completed before the personal trainer was allowed to work directly with the clients recruited onto the trial sessions.

The role of a fitness trainer or sport coach (for participation) in this context can be summarised by using a commonly accepted definition developed by the National Strength and Conditioning Association definition which reads: “Health/fitness professionals use an individual approach to assess, motivate, educate, and train clients regarding their health and fitness needs. They design safe and effective exercise programmes and provide the guidance to help clients achieve their personal goals. In addition, they respond appropriately in emergency situations. Finally refer clients to health care professionals when necessary. Once the client complete the program is necessary to make the reassessment to know the degree of fulfillment of the goals”.

In the fitness sector a personal trainer has an “occupational role” that is described as: A personal trainer’s role includes designing, implementing and evaluating exercise/physical activity programmes for a range of individual clients by collecting and analysing client information to ensure the effectiveness of personal exercise programmes. A personal trainer should also actively encourage potential clients/members to participate in and adhere to regular exercise/physical activity programmes, employing appropriate motivational strategies to achieve this and to assist them with behavioural change as a result.







## Case study extract: *SkillsActive, UK*

...The concept of the project is brilliant and it is such an important target age group to engage with. However I think the timescales for the project could have been improved as it seemed very disjointed in the limited time for when the additional PT training was available. Sufficient training seemed to only be available half way through the suggested trial dates which meant the actual window to deliver the trials was extremely small and put much greater pressure on engaging with the right amount of people.

The training programme and behavioural change component provided was very suitable and manageable for the target age group. This is something that could certainly be replicated. Going forward more engagement with health practices to engage with that target age group and the importance of exercise to their health would certainly help to increase participation.

It is known that this age group strongly trusts their General Practitioner Doctor more than anyone else so if they were to provide the encouragement for the project there would be a much higher up-take...

The occupation of personal trainer is referenced to the European Qualification Framework level 4.

The additional training required for active ageing is described as: An Active Ageing Trainer delivers fitness instruction to help build fitness participation of new and existing exercisers over 50 years of age. This can be done with the use of equipment in a gym, or to a group through fitness classes, and with an understanding of the physiology of ageing and their ability to work safely with older adults through the adaptation of exercise programme design and delivery.

Sport coaches for participation will recognise the common skills they have with personal trainers in this context and how specific training can be adapted to other sporting settings. The learning materials for the PAHA project can be accessed by contacting EuropeActive and a link will be provided for their use.

Contact: [thesecretariat@europeactive.eu](mailto:thesecretariat@europeactive.eu)

An important consideration at this stage is to be clear about where the intervention is starting and what is expected. In the recruiting of the clients to take part they must be properly assessed in the pre-activity readiness and in so doing to establish current fitness and physical ability levels. At the end of the intervention – and in follow-ups further measuring and recording of the effect of the intervention is both potentially very motivating for the individual, but also provides evidence to help support best practice in this area.



World Health  
Organization

REGIONAL OFFICE FOR  
Europe

REGIONAL COMMITTEE FOR EUROPE  
65<sup>TH</sup> SESSION

Vilnius, Lithuania, 14–17 September 2015



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# Physical activity strategy for the WHO European Region 2016–2025



Working document

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*All programmes supporting increasing activity levels should be fully monitored and evaluated. This will help to constantly improve practice – and more importantly to avoid making the same mistakes time and again. As described above, there are some standard approaches which help to give comparability of outcomes and actions.*

*The EU-WHO Strategy 2016-2025 identifies five priority areas for action, with evaluation and research as the fifth one.*

*With the main goal of supporting the strategy and related actions (through monitoring, surveillance, and provision of tools, enabling platforms, evaluation and research), the priority considers that strengthen the evidence base for physical activity promotion is a key issue to address.*

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## 6. Successful measuring and evaluation of the proposed intervention

Recent reports have highlighted the lack of evidence for the effectiveness of real-world physical activity interventions, and it is critical for the further development and consolidation for fitness and recreational sport that we build credibility based on facts and independent high quality research.

The ukactive Research Institute has confirmed that: “we must now translate repeated lab-based research findings into real world services, with a clear two-way link between academia and frontline practice: one without the other is completely pointless. We need a constant process of refining the evidence to support practical interventions, which can be realistically implemented and scaled-up if shown to be effective.” The PAHA project set about to address this challenge by integrating formal appropriated evaluation and assessment in each of the project development stages and especially at the intervention one (pre and post intervention, and 3 and 6 months follow up). A number of validated instruments and tools were used and that were found to be critical to build a significant level of impact, and therefore to allow for an evidence-based dissemination of the model across Europe.

The PAHA project integrated the data analysis phase of the project as an evaluation of each intervention (per country and per centre) against NESTA standards for evidence, comparing the results with the similar ones identified at the 2014 Public Health England Report ‘Identifying What Works for Local Physical Inactivity Interventions’.

This part of the project aimed to identify specific recommendations for effective implementation at community level.

The active ageing training programme that was developed in the PAHA project was prepared in the context that although exercise and physical activity are among the healthiest things that anyone can do, some older adults are reluctant to exercise. Some are afraid that exercise will be too hard for them or that physical activity might harm them. Others might think they have to join a gym or have special equipment and yet studies show that "taking it easy" is also risky. For the most part, when older people lose their ability to do things on their own, it doesn't happen just because they've aged. It's usually because they're not active. Lack of physical activity also can lead to more visits to the doctor, more hospitalisations, and more use of medicines for a variety of illnesses.

Scientists have found that staying physically active and exercising regularly can help prevent or delay many diseases and disabilities. In some cases, exercise is an effective treatment for many chronic conditions. For example, studies show that people with arthritis, heart disease, or diabetes benefit from regular exercise. Exercise also helps people with high blood pressure, balance problems, or difficulty walking.

Regular, moderate physical activity can help manage stress and improve the mood. Being active on a regular basis may help reduce feelings of depression. Studies also suggest that exercise can improve or maintain some aspects of cognitive function, such as your ability to shift quickly between tasks, plan an activity, and ignore irrelevant information.

Some people may wonder what the difference is between physical activity and exercise. Physical activities are activities that get the body moving such as gardening, walking the dog, and taking the stairs instead of the elevator. Exercise is a form of physical activity that is specifically planned, structured, and repetitive such as weight training, tai chi, or an aerobics class. Including both in the daily lifestyle habits life will provide health benefits that can help feeling better and enjoying life more as ageing process commence.

Older adults who are inactive lose ground in four areas that are important for staying healthy and independent:

**endurance**  
**strength**  
**balance**  
**flexibility**

Research suggests that it is important to maintain or at least partially restore these four areas through exercise and physical activity, and that doing so improves overall fitness. For example, increasing endurance will make it easier for an older adult walk farther, faster, and on a gradient. Strengthening muscles will make them stronger and improving balance can help sensing body control, and increasing flexibility helps keep body supple and flexible. The goal for each individual client taking part in the trial sessions was for the fitness trainer to use the professional knowledge and skills and to be creative and choose from each of the four types -- endurance, strength, balance, and flexibility would be the most suitable and applicable. Mixing it all up can also help reaping the benefits of each type of exercise, as well as reduce the risk for injury – but it depends on individual circumstances.

The PAHA structured exercise intervention was designed on the evidence statements and summary of recommendations for individualised exercise prescription from ACSM Position Stands 2011 and 2009.

<sup>2</sup> *ukactive Blueprint for an Active Britain, Research and Evaluation, 2015, pages 30 to 34.*

## 7. Active ageing – what’s going on – what needs to happen?

In adults aged 65 years and above, physical activity includes leisure time physical activity (for example: walking, dancing, gardening, hiking, swimming), transportation (e.g. walking or cycling), occupational (if the individual is still engaged in work), household chores, play, games, sports or planned exercise, in the context of daily, family, and community activities.

In order to improve cardiorespiratory and muscular fitness, bone and functional health, reduce the risk of NCDs, depression and cognitive decline:

- ✓ Older adults should do at least 150 minutes of moderate-intensity aerobic physical activity throughout the week or do at least 75 minutes of vigorous-intensity aerobic physical activity throughout the week or an equivalent combination of moderate- and vigorous-intensity activity.
- ✓ Aerobic activity should be performed in bouts of at least 10 minutes duration.
- ✓ For additional health benefits, older adults should increase their moderate-intensity aerobic physical activity to 300 minutes per week, or engage in 150 minutes of vigorous-intensity aerobic physical activity per week, or an equivalent combination of moderate- and vigorous-intensity activity.
- ✓ Older adults, with poor mobility, should perform physical activity to enhance balance and prevent falls on 3 or more days per week.
- ✓ Muscle-strengthening activities, involving major muscle groups, should be done on 2 or more days a week.

When older adults are unable to do the recommended amounts of physical activity due to health conditions, they should be as physically active as their abilities and conditions allow. There appears to be a graded linear relation between the volume of physical activity and health status, such that the most physically active people are at the lowest risk. However, the greatest improvements in health status are seen when people who are least fit become physically active.

Aging is the accumulation of changes responsible for the sequential alterations that accompany advancing age and the associated progressive increases in the chance of disease and death. Average life expectancies at birth in the developed countries are now approaching plateau values as the aging changes associated with the environment and disease near irreducible levels.

Many issues, both genetic and environmental, affect how we age. The most widespread condition affecting those 65 and older is coronary heart disease, followed by stroke, cancer, pneumonia and the flu. Accidents, especially falls that result in hip fractures, are also unfortunately common in older people. Many of them are coping with at least one of the following conditions, and many are dealing with two or more of the following:

- Heart conditions (hypertension, vascular disease, congestive heart failure, high blood pressure and coronary artery disease)
- Dementia, including Alzheimer's disease
- Depression
- Incontinence (urine and stool)
- Arthritis
- Osteoporosis
- Diabetes
- Breathing problems
- Frequent falls, which can lead to fractures
- Parkinson's disease
- Cancer
- Eye problems (cataracts, glaucoma, Macular Degeneration)
- A slowed reaction time, which is especially important when judging if a person can drive.
- Thinner skin, which can lead to breakdowns and wounds that don't heal quickly
- A weakened immune system, which can make fighting off viruses, bacteria and diseases difficult
- Diminished sense of taste or smell, especially for smokers, which can lead to diminished appetite and dehydration

A common misconception is that older people need to “take it easy” when performing exercise. Although this may be true when initiating an exercise programme or in the presence of comorbidities (e.g., heart disease, diabetes, balance disorders), some researchers suggest that older people who are healthy respond to strength and endurance training in a similar fashion to younger people.

The recommendation for exercise prescription for older adults should consider:

- The recommended intensity of aerobic activity takes into account the older adult's aerobic fitness; activities that maintain or increase flexibility are recommended;
- Balance exercises are recommended for older adults at risk of falls.
- Older adults should have an activity plan for achieving recommended physical activity that integrates preventive and therapeutic recommendations.
- The promotion of physical activity in older adults should emphasise moderate-intensity aerobic activity, muscle-strengthening activity, reducing sedentary behaviour, and risk management.

For fitness trainers and sport coaches who want to instruct older adults in taking up health-enhancing physical activity it is important that they understand the theory or theories of ageing which are divided into two categories:

- Those that answer the question “Why do we age?”
- And those that address the question “How do we age?”

A critical issue in aging research is whether aging is affected by one, several, or a multitude of underlying processes. The fitness instructor or sport coach must be in a position to decide and adapt the activity intervention to support their client, and reflect reasonable expectations and outcomes.



*"The fitness industry has made great strides in recent years on promoting active ageing, this positive direction must be continued and developed even further. The ability and affordability for older adults to join a health centre, access facilities and information to improve their health and extend their active living has never been easier. But more emphasis must be placed on the variety of group programmes available, taking into account the timings and price of these programmes. The significance of this cannot be overstated, particularly post retirement when many adults may leave their normal routine. Adopting a structured physical exercise programme and routine will help develop positive health habits as well the mental and social benefits that come with these interactions."*

*Christine Moloney, MBA, Ireland Active*

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## 8. It's not all about technical skills – people skills are just as important

As previously mentioned fitness, health or sport professionals can influence motivation and behaviour change if there is an understanding that multiple factors are at play. The first implication of this is to be aware of the fact that there are no one-dimensional quick-fix solutions or programmes. The second implication is an awareness of the need to manage a large set of factors when coaching an individual and in designing a specific programmes for older adults which can generally be described in six stages.

In short, the stages of change are:

1. Pre-contemplation: People who are not currently active and do not intend to become active in the near future (approximately 6 months);
2. Contemplation: People who aren't currently active, but do intend to become active sometime in the next 6 months;
3. Preparation: This group contains people who are not active or are irregularly active, but are preparing to exercise (within the next 30 days);
4. Action: People who made a change in their behaviour and are currently active (who exercise), but have only started recently (6 months), and as a result are at risk of returning to the inactive phase;
5. Maintenance: People who have been active for some time, for at least six months, and where exercise has become a reasonably stable characteristic;
6. Relapse: On one hand active people can maintain their active behaviour, and on the other hand, they can relapse into inactive behaviour which will return them to the first or second stage.

The PAHA project was specifically set-up to manage inactive people into structured exercise programmes and then to maintain a level of activity that would be beneficial to their health. Specific training for the personal trainers who took part in the running the trial sessions included how to manage behavioural and motivational changes in their clients in the trial sessions.

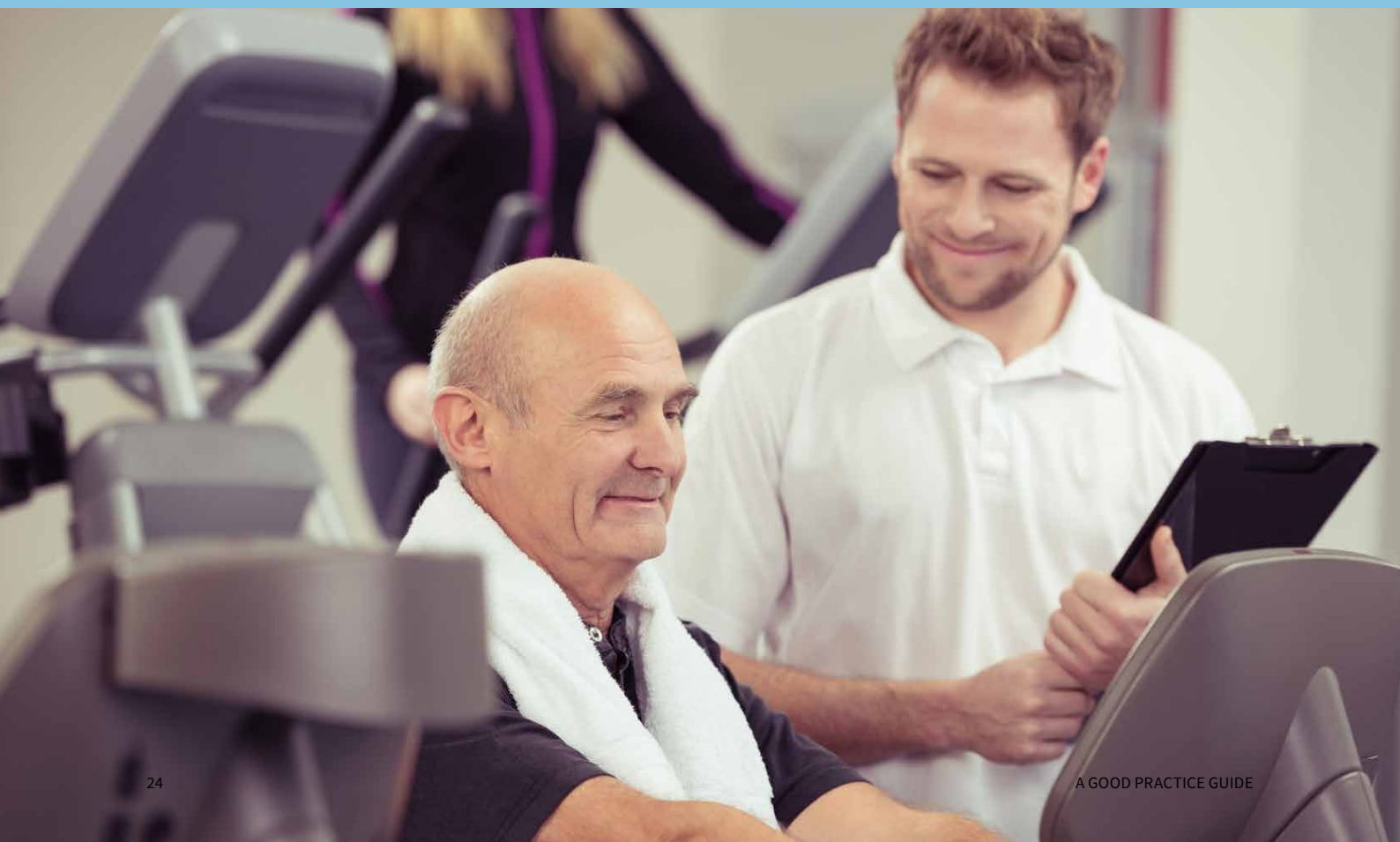
For more information please contact **EuropeActive**.



*The PAHA project has confirmed the importance of the critical need for well-motivated staff. No matter how good is the design of the training programme, without excellent exercise professionals the possibility of success decreases significantly, as we have seen comparing the results of different fitness centers.*

*Dr. Silvano Zanuso, Director of Technogym's Medical & Scientific Department.*

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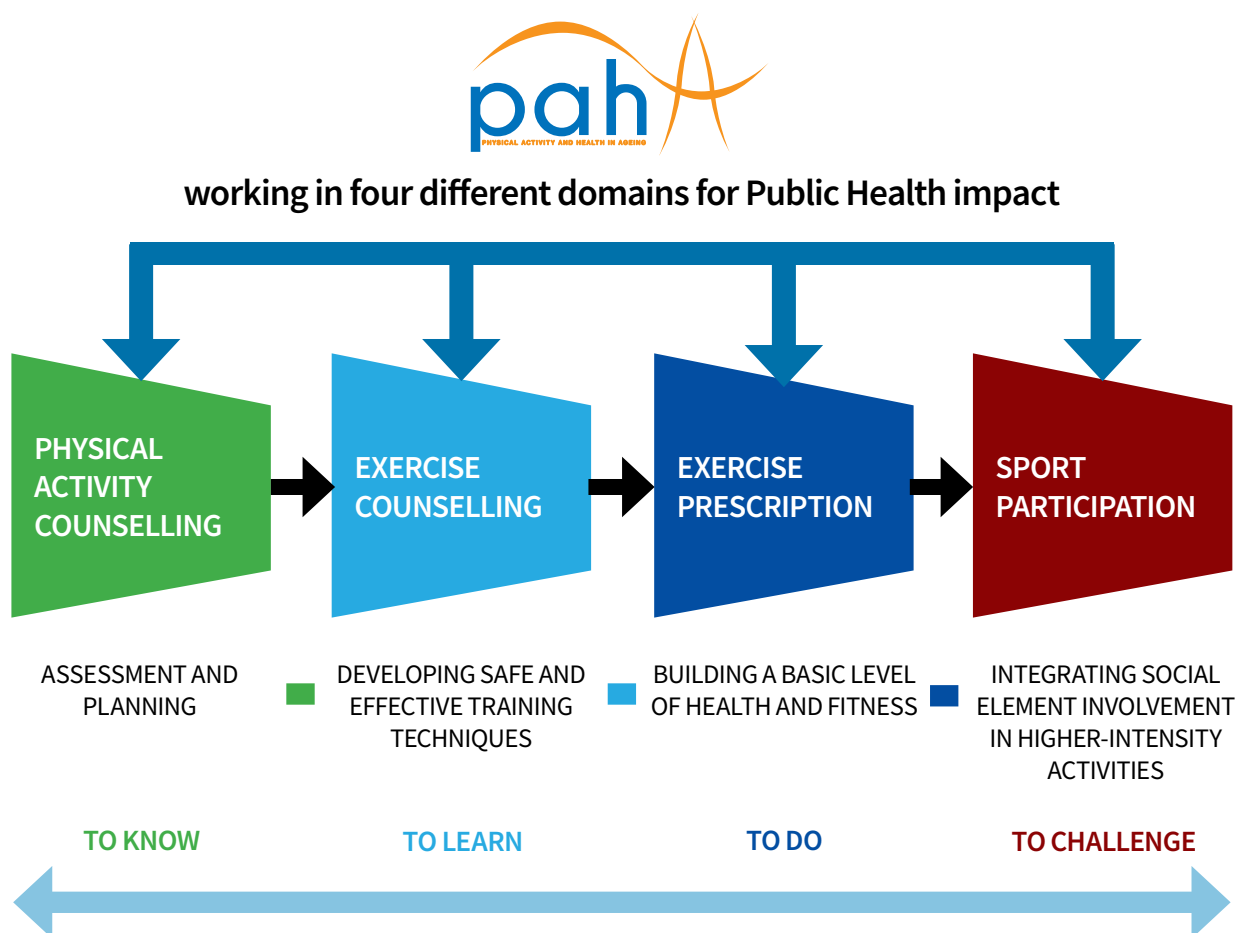


## 9. How to structure the activity sessions

In the delivery of the exercise/activity programme there are three main stages or parts to be considered which are:

1. Assessment,
2. Programme design and,
3. Re-assessment.

The PAHA project was constructed considering the 4 main domains for public health impact, from which it focused on the physical activity counselling (assessing and planning, “to know”), the exercise counselling (developing safe and effective training techniques, “to learn”) and the exercise prescription (building a basic level of health and fitness, “to do”):



It is essential to understand where you start from, and to set targets that are realistic and which can be managed and monitored so that the programmes will work to achieve desired results.

In the first element, the most important principle is the health appraisal process, to screen participants for risk factors and symptoms of chronic cardiovascular, pulmonary, metabolic and orthopedic diseases, in order to optimize safety during exercise testing and participation. The professionals have to gather and assess pertinent information regarding their personal health, medical conditions, and lifestyle.

There are a number of models available which can be used for pre-assessment, but there are two instruments most commonly used: PAR-Q+ (Physical Activity Readiness Questionnaire for Everyone) and AHA/ACSM Health/Fitness Preparticipation Screening Questionnaire.

## 9.1 Pre-participation Screening

Extracted from NSCA (2008)	
<b>Coronary Risk Factors</b>	Family history Cigarette smoking Hypertension Hypercholesterolemia Impaired fasting glucose Obesity Sedentary lifestyle
<b>Diagnosed Disease</b>	Coronary artery and Pulmonary disease Metabolic Disease Orthopedic Conditions and Disease Medications
<b>Lifestyle</b>	Dietary Intake and Eating Habits Exercise and Activity Pattern Stress Management

There are many variants of the pre-activity readiness questionnaire (PAR-Q) and it is advisable to check with any other national guidelines and best practices that may be pertaining. As of November 2015, the American College of Sport Medicine's exercise pre-participation health screening process was updated on the basis that there is considerable evidence for the following:

- Exercise is safe for most people and has many associated health and fitness benefits
- Exercise-related cardiovascular events are often preceded by warning signs/symptoms
- Cardiovascular risks associated with exercise lessen as individuals become more physically active/fit



## EXERCISE PREPARTICIPATION HEALTH SCREENING RECOMMENDATIONS

**EXERCISE IS GREAT FOR MOST PEOPLE.**

We want people to exercise.

And have made starting less intimidating—based on our research into outcomes.

**MEDICAL CLEARANCE** | A doctor advises a patient that he or she may exercise based on medical history and current health.

**MEDICAL EXAM/TEST** | A doctor examines a patient for particular issues that may interfere with exercise.

**THE BIG CHANGE:** Most people can exercise without visiting a doctor first.

Points to consider before starting to exercise or increasing exercise intensity:

- 1 Current activity level
- 2 Signs/symptoms of certain diseases
- 3 Planned exercise intensity

The PAHA project recruited people onto the trial interventions who were classified as inactive according to the WHO guidelines (that is, they were doing less than the recommended 150 minutes of moderate intensity exercise per week). It is critically important that fitness professionals and sport coaches are competent in pre-activity screening processes and adopt good practice for the protection and consideration of the clients. As recognised above, current thinking centres on the use of international standards such as the PAR-Q. After completing the health appraisal, the personal trainer needs to gather more information about the client's current level of fitness and skills before developing a program. In the process of identifying and selecting appropriate tests it is important to consider the following individual factors:

- Health status and Functional Capacity
- Age
- Sex
- Pretraining Status (trained or untrained population)

In 2007, a collaboration of international authorities and regional health and fitness organisations sought to reduce barriers for low to moderate intensity physical activity participation, and exact the identification of those persons who may require additional screening prior to becoming more physically active. The overall aim was to simplify the follow-up of traditional physical activity participation clearance, expedite the involvement of physicians, allied health care professionals, and/or qualified exercise professionals, thereby reducing the health care costs associated with traditional medical clearance for physical activity participation as an adjunct treatment of chronic conditions.

The new resultant risk stratification and physical activity participation clearance strategy markedly reduces the barriers to physical activity participation for everyone. This includes paper and online versions of the new Physical Activity Readiness Questionnaire for Everyone (PAR-Q+) and the new online electronic Physical Activity Readiness Medical Examination (ePARmed-X+). The PAR-Q+ and ePARmed-X+ can be used to determine your readiness for increased physical activity participation or a fitness appraisal. These forms are meant for everyone regardless of age, sex, or health status.

It is expected that this new risk stratification and physical activity participation clearance strategy will allow more individuals to reap the health benefits of physical activity – and in this case for currently inactive older adults.

The risk stratification strategy is based on evidence that involved qualified exercise professionals working in stringently controlled settings. The risks of exercise have been shown to be low in research in both apparently healthy individuals and persons living with chronic medical conditions when working with qualified personnel. However, the current evidence indicates cautions when seeking the advice of individuals that have not attained this level of training (particularly for those with chronic medical conditions).



*From our outset in 2011, Fit&Sund has focused on senior citizens as one of the three primary target groups of our business model. On that basis we have worked closely with non-profits focusing on improving the lives and wellbeing of seniors, as well as with academic institutions conducting research on the health, fitness and active aging of the elderly.*

*A special feature in the way that Fit&Sund approaches seniors is our conceptual framework of the “senior club”. The senior club, which is framing our senior member environment in each of our 20+ facilities, is run by one or more “senior ambassadors”, who are themselves seniors, and who have specialised in the fitness and health of people older than 55. All the activities of our senior clubs are centred around Fit&Sund’s three conceptual “pillars” of health, knowledge and presence (attentive service, a welcoming environment, other senior members to socialise with etc.), as well as the three-dimensional definition of healthiness of the WHO: physical, social and mental wellbeing.*

*Taking part in the PAHA project has given Fit&Sund new opportunities to reach seniors that we ordinarily have a hard time getting in touch with (relatively inactive seniors, who do not frequent fitness and exercise facilities like fitness clubs), and has contributed significantly to our understanding of how we reduce “entry barriers” for senior citizens, and how we keep our seniors motivated and active over longer periods of time.*

*Andreas Paulsen, CEO Fit&Sund, a delivery partner in the PAHA project*

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## 9.2 Programme design concepts and methods

Fitness is a multi-dimensional component, and effective training design depends upon the application of scientifically based training programmes based upon the fundamental principles of training.

All adaptations in fitness and/or performance will require physiological adaptations in the body. The nature of the adaptation will depend upon the specific training stimulus presented, and the associated physiological systems stressed. Essentially, the body will not adapt to a stimulus unless it is of sufficient stress to induce a required change in performance. In simple terms, the exercise stimulus needs provide the body with a reason to change. This is the principle of overload, whereby the body needs to be subjected to training demands above its natural coping resources if a training adaptation is required. Another key factor is that with adaptation, the body will be able to cope with increased level of training stress, therefore a training load that can induce overload at one time may be insufficient to induce overload at a subsequent time.

Training is therefore aimed at generating a physiological adaptation and so it is important to examine the method by which the body adapts to training. Adaptation is a long-term process of physiological change in response to training, by which the body is prepared to cope with potential stressors. A key to effective training is consistency of application, and training responses are optimised via a sequence of training sessions i.e. a training programme. In this way, the timing of subsequent sessions becomes critical. Appropriate session timing is a complex process, and will depend upon both the individual's stress tolerance capacity and the nature of the load.

Progression is clearly an essential part of an effective training programme. This necessarily requires an understanding of how training load can be progressed over the length of a training programme to maximise performance results. Overall training load is determined by three principal variables namely training intensity, training volume and training frequency.

It is important to maintain a level of flexibility, a common approach to allow for gradual adaptations is the F.I.T.T.A (frequency, intensity, time, type and adherence) principle which is particularly relevant for older adults. Optimal musculoskeletal function requires an adequate range of motion be maintained at all joints. The following recommendations are applicable to both active and passive stretches.

- ✓ Flexibility: training can be undertaken on a daily basis; however, a minimum of 2-3 days a week and a minimum of four repetitions per muscle group are recommended. Essentially a flexibility program should be adhered to before exercise during the warm-up phase and also after exercise cessation. When stretching ensure that muscles are warm to prevent injuries.
- ✓ Intensity: To improve or maintain flexibility, when stretching muscles should be lengthened beyond normal movement levels. Stretching exercise should be performed in a slow, controlled manner with a gradual progression to greater ranges of motion and those without the involvement of pain.
- ✓ Time: The amount of time each stretch should be held for is between 10-30 seconds. Type: An effective stretching program should include exercises that influence major muscles and tendons of the body, from the upper to the lower extremities.
- ✓ Adherence: As with all exercise, flexibility training requires continuous and effective adherence in order to maintain or increase range of movement (ROM). The cessation of flexibility training will eventually lead to a return to pre exercise ROM values and thus the benefits of a stretching regime will have diminished.



## Case study extract: *Balanssiklubit Club, Finland*

We found it was easy to select the right Personal Trainers, you need to have the right personality for this kind of project. It was important that the same PT leads the group from the beginning until the end. Trust is the key aspect in order to establish a strong client-relationship among people who have not history in doing exercises and need extra motivation all the time.

To access the additional training for Personal Trainers we made it a normal task for professional PTs to run these kind of groups. The main thing was to start slowly and with easy activities.

To recruit the older adults to take part in the trials we found that it was very important to set up regular meetings and create trustworthy atmosphere from the very first meeting.

To keep them to training programmes for 6 weeks it was important to have regular review meetings about their progress and for some mid-term re-assessments so PTs could encourage all the individual members of the group. We also made sure that PTs were available even a short time to talk with the clients and give them support all the way during the project even they were training independently.

## 9.3 Exercise session delivery

The delivery of an exercise session will need to consider the following key elements:

- ✓ Security and safety, based on a simple and basic application of the training methodological principles to guarantee an effective session free of injuries risk (as warm-up and cool down; load progression within the session).
- ✓ Selection of an appropriate dose of exercise (mode, intensity and volume), considering the level of capacity and ability of the participant, and the daily particular situation (proper sleeping, completed recovery from previous exercise session, etc.) and the context (i.e. weather conditions).
- ✓ Commitment from both side, the PT and the participant, so they meet the expectations regarding engagement (from the PT) and enjoyment (from the participant).
- ✓ Clear communication – many of the clients will not be familiar with the setting for their exercising, the equipment being proposed nor in the use of some of the words and phrases.

Quality instructor-client communication, including shared decision-making, improves the clients' satisfaction and fitness outcomes associated with exercise recommendations. Written, exercise-specific handouts containing simple language and diagrams can reduce misinterpretation. Instructors should keep directions explicit and measurable and clearly define activity intensity and variety. For example, an instructor can tell the client, "Take a 10-minute walk, three times a day, every day of the week. Choose a speed that allows you to talk but that is moderately hard work. The distance is not important, but make sure to walk for the entire 10 minutes."

Studies suggest that older clients whose instructors had advised them to exercise were five to six times more likely to participate in supervised exercise classes, and men were more than 12 times more likely to perform calisthenics at home. Incorporating activity counselling into the exercise programmes should include:

- ✓ Confirmation that the client understands the exercise recommendation and its expected health benefits (e.g., ask what activity the client is doing, how often and how intensely he or she is active, and what health benefits are expected).
- ✓ A "translation" of any new exercise-related information that is presented.
- ✓ Recommendations of credible resources from where clients can get information about exercise.
- ✓ Encouragement of other (alternative) affordable community-based exercise and support programmes.
- ✓ Foster a continued exercise and fitness message.

Successful exercise recommendations require collaboration between the instructor/coach and their client(s). An understanding and connection with government sponsored exercise programmes, physical therapy, and community-based programmes increases exercise accessibility and provide clients support while cutting costs. Instructors also should support personal and local initiatives that encourage increased physical activity and can help to build social networks and new connections that encourage continued participation in group activities.

It is likely that many potential clients have not previously taken part in organised sport or fitness sessions in recent times and so it is important to try to make them feel confident and in a general context of how exercise can improve day-to-day life.

Older adults may be especially interested in knowing some, or all, of the following outcomes if they are active to a level which is beneficial to their health:

- ✓ Maintaining their personal independence.
- ✓ Avoiding accidental injuries.
- ✓ Preventing, postponing or reducing symptoms of disease (such as arthritis, osteoporosis and cardiovascular disease).





- ✓ Extending the length of their professional careers or volunteer service.
- ✓ Continuing active pursuits such as gardening, playing golf or keeping up with their young grandchildren.
- ✓ Being able to take part in more activity-based holidays and escorted tours, etc.

It is equally important not to stereotype. Rather than stereotyping “deconditioned” clients as limited or incapable, let them know you believe in their ability to master new skills, improve their fitness levels and change unhealthy habits. Reassure those who doubt their ability to exercise that there is an appropriate form exercise for everyone. Be generous with honest and positive feedback.

Furthermore, there are some other key considerations in adapting approaches to build confidence, understanding and cooperation:

- ✓ Make the training/exercise sessions time-sensitive – Design time-economical workouts for those who have trouble finding enough hours in the day to exercise. Exercise-machine routines can be especially efficient for this purpose.
- ✓ Keep the training interesting – Develop creative interventions for individuals at risk for disengagement (for example, programming that features added personal attention, non-demanding social contacts, and opportunities for fellowship with children and animals.
- ✓ Stay in Touch – Combat the tendency of older people to reduce their activity level by personally contacting those who miss exercise sessions or fail to renew their programme commitments. Keep in touch through telephone calls and notes—always invite them back!  
Use Simple Terms – Avoid intimidating technical language when working with beginners. For example,



- ✓ heart-healthy exercise has been suggested as a more user-friendly term than aerobic exercise. Similarly, it may be advisable to place as much emphasis on ratings of perceived exertion as on the counting of training heart rates.
- ✓ Individualise – Afford individualisation by offering new clients a number of programming options. In addition to being safe and effective, the chosen mode of exercise must be an activity the client will actually choose to perform on a regular basis. Whereas some older adults are drawn to walking programmes, others may prefer aquatics, low-impact dance classes or equipment workouts. Remember, one size definitely does not fit all when it comes to active ageing management.
- ✓ Interval Training – When working with low-fit (or apprehensive) beginners, keep in mind that scientific evidence increasingly suggests that the health benefits associated with physical activity are related primarily to total quantity of activity completed, regardless to exercise mode, duration or intensity. Therefore the recommended duration of exercise can be accumulated through short bouts of activity, either within a single workout session or during several sessions throughout the day.

- ✓ Create Comfort – Establish a workout atmosphere in which older-adult clients feel comfortable. Wear appropriate clothing and select music with clients’ tastes in mind.
- ✓ Never fail to observe simple courtesies, which are highly valued by many older adults. Promote fun by sharing a little of yourself and occasionally talking about topics other than fitness.
- ✓ Keep choreography simple enough to produce a sense of achievement (never inadequacy or frustration).
- ✓ Welcome New Clients – Be sure to introduce newcomers to the other members. This helps beginners feel welcome and paves the way for them to become “part of the club”.

Most importantly, and as described in the following sections, it is vital to have pre-arranged exercise sessions with the clients during the 6-week intervention period.

How the instructor/coach communicates with their older participants helps determine whether they continue with attending the planned sessions, but their reasons for initially attending can differ significantly from those of other age groups.

The factors motivating seniors fall into one of four categories:

1. Prevention: They want to prevent something from happening, such as cardiac disease or physical deterioration.
2. Control: They want to gain control of their lives, bodies and health.
3. Reversal: They want to reverse something that’s already happened, such as weight gain or a decrease in range of motion.
4. Participation: They want to participate in life in a meaningful way.

Six aspects of fitness motivation for seniors: emotional, spiritual, vocational, intellectual, social and physical.

Keep in mind that this generation did not grow up viewing fitness as a goal and may still cling to the perception that exercise is uncomfortable and gruelling. It is incumbent upon you to make exercise a learning experience that is fun but still geared toward your participants’ goals.

If the music and you are competing for attention, turn the sound down or off. Turning up your microphone will not improve the situation, especially for people with hearing aids.



***In Greece, we advertised the “exclusiveness” for the 3 gyms which took part in the PAHA project. They also developed a special “gift card” to propose to their normal clients to encourage their parents to join the club with them. This very smart solution is very good to tackle the problem that most of the time, parents do not feel comfortable to come in the fitness clubs***

***Doros Kleovoulou, Managing Director, Attic Union of Gym Owners (AUGO)***

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## Essential do's and don'ts



- *Make fitness fun.*
- *Look for underlying social needs that may not have been articulated.*
- *Ask what brought each person to start exercising.*
- *Say your name and learn participants' names.*
- *Ask how people prefer to be addressed (some prefer to be called by their surnames).*
- *Notice and comment on progress of any sort.*
- *Make sure appointments are booked and kept.*
- *Be sincere, enthusiastic, caring and compassionate.*
- *Have a sense of humour.*
- *Act in a trustworthy manner so that you gain participants' trust.*
- *Build relationships over time by acknowledging birthdays, hosting outings, celebrating milestones, taking group photos, etc.*
- *Show respect.*
- *When the intervention has finished, make sure there is regular follow-up and communication.*



- *Be dismissive about clients' concerns.*
- *Forget to welcome new participants immediately.*
- *Neglect to revisit participants' goals periodically.*
- *Assume personality alone will keep members coming back; educate yourself about their needs and desires.*
- *Ignore a "no show" – follow-up with a re-booking.*
- *Play favourites or get involved in gossip, as this will destroy participants' trust in you.*
- *Be patronising or condescending.*
- *Promise that the workout will be really easy.*

## 9.4 The 6-week intervention plan

The PAHA project developed a 6 week intervention plan that included exercise, exercise counselling and behavioral change aspects. This was based upon an evidence-based intervention that had been designed following statements and summary of recommendations for individualised exercise prescription from ACSM Positions Stand 2011 and 2009. Please note that this should be adapted for different setting and for other recreational sporting activities.

Week	Exercise Sessions			Action - Intervention Exercise Counselling Themes	Behavioural Change
	S1 (with Personal Trainer)	S2	S3		
W0	Assessment and information of the project	Physical Activity	Physical Activity	Information day presenting the programme. No action on behavioural change education. Handover the accelerometer. Complete the PAR-Q+ questionnaire.	None
W1	WHY? WHAT? HOW? Exercise counselling followed by a low intensity 30 minutes light aerobic exercise session.	Structured Exercise 20min AER* light to moderate intensity. Single set of RT* involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Structured Exercise 20min AER light to moderate intensity Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Focused in Why? What and How?	Completion of physical activity mediators survey composed for the programme, based on the referenced questionnaires (1,3).
W2	Structured Exercise 25min AER light to moderate intensity Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Structured Exercise 25min AER light to moderate intensity Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Structured Exercise 25min AER light to moderate intensity Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Understanding Intensity and learning how to use it.	Using the STAGE model, and the results of the questionnaire, assessment of the participant, development of the action plan according to the PT Training Material guidance. Agreement and written declaration of the client adhering to the agreed action plan. Encouraging participants to conduct a diary or activity and actions log during the overall length of the program.
W3	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Structured Exercise 25min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Different modes of exercise and its impact in health.	Discussion of individual's self-efficacy and coping skills. Providing feedback based on the survey results agreement of actions to be completed. (4)

\*AER: aerobic exercise; \*RT: resistance training

Week	Exercise Sessions			Action - Intervention Exercise Counselling Themes	Behavioural Change
	S1 (with Personal Trainer)	S2	S3		
W4	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Progression guidelines and rationale about progressive increase of exercise load.	Development of the action and coping plans for the regular controlled and non-controlled physical activity. Obtain written commitment from the client. (2)
W5	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Pre/post exercise practice (warm-up/cool down) Why? What? How?	Review adherence to the developed action, coping and self-efficacy improvement plans. Discussing the intermediate results and adjust plan according to the progress.
W6	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Structured Exercise 30min AER moderate intensity 2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Exercise Practice guidelines: Enjoying exercise practice in a safe and tailored programme. Integrating physical activity and exercise within lifestyle.  (Give a T-Shirt for the completing participants.)	Reinforce the client's competence, relatedness and autonomy achieved during the 5 weeks period and develop a further coping and action plan for the 3 months period. Completion of questionnaire as per initial questionnaire (w1) adding the post-evaluation type questions for the 6 weeks intervention programme.

Follow Up		
Months	Action - Intervention Exercise Counselling Themes	Behavioural Change
3M	Wear the key for one week in month 3.	On-line submission of the action, physical activity and coping plans for the next 3 months period. Feedback from clients on the faced and experienced challenges.
6M	Wear the key for one week in month 6. Hand over the keys to the participants as a gift.	Feedback via on-line questionnaire from clients on the faced and experienced challenges, progress and lifestyle changes.



## Further Reading

### References for physical activity plans

1. Garber, Carol Ewing; Blissmer, Bryan; Deschenes, Michael R.; Franklin, Barry A.; Lamonte, Michael J.; Lee, I-Min; Nieman, David C.; Swain, David P. Quantity and Quality of Exercise for Developing and Maintaining Cardiorespiratory, Musculoskeletal, and Neuromotor Fitness in Apparently Healthy Adults: Guidance for Prescribing Exercise. *Medicine & Science in Sports & Exercise*. 43(7):1334-1359, July 2011. doi: 10.1249/MSS.0b013e318213fefb
2. Chodzko-Zajko, Wojtek J.; Proctor, David N.; Fiatarone Singh, Maria A.; Minson, Christopher T.; Nigg, Claudio R.; Salem, George J.; Skinner, James S. Exercise and Physical Activity for Older Adults. *Medicine & Science in Sports & Exercise*. 41(7):1510-1530, July 2009. doi: 10.1249/MSS.0b013e3181a0c95c

### References for behavioural change process definition

1. Bess H. Marcus, LeighAnn H. Fortsyth: *Motivating People to be Physically Active* (p. 21,23, 57 -76)
2. Mark Conner: *Initiation and Maintenance of Health Behaviors* (in *Applied Psychology: An international review*, 2008, 57(1), p 42-50)
3. Amelie U. Wiedermann, Sonia Lippke, Tabea Reuter, Jochen P. Ziegelmann, Benjamin Schütz: *The more the better? The number of plans predicts health behavior change* (in *Applied Psychology: Health and Wellbeing*, 2011, 3(1), p 87-106)
4. Amelie U. Wiedermann, Sonia Lippke, Tabea Reuter, Jochen P. Ziegelmann, Ralf Swartzter: *How planning facilitates behavior change: Additive and interactive effects of a randomized controlled trial* (in: *European Journal of Social Psychology*, 2011, 41.p 42-51.)

## 10. Specific characteristics used in the PAHA intervention

The Aim: To demonstrate if 6 weeks intervention of structured exercise + counselling + behavioural change support is effective in increasing physical activity levels in previously self-perceived inactive individuals (55-65 year old).

The primary outcome: Level of physical activity (volume/week), reported by IPAQ questionnaire and directly assessed by a portable accelerometer (MyWellnessKey, MWK) in a subsample. Note: the use of accelerometers will greatly improve the monitoring of activity levels during the structured sessions and for the patterns of activity of the clients. There are various models of accelerometers available, including some based on android phones.

The personal trainers in the PAHA project were given additional, specific training in the use of the MWK and the recording of the data received.

Secondary outcomes: Quality of life related measures (AQoL-6D instrument to measure health-related Quality of Life<sup>3</sup>). A subsample will undertake clinical measures linked to cardiovascular risk factors (blood sugar level, smoking, HDL, LDL, family history, blood pressure, etc.).

<sup>3</sup>. AQoL-6D instrument to measure health-related Quality of Life, please visit <http://aqol.com.au/> For translated versions go to: <http://www.aqol.com.au/index.php/aqol-translations>  
The PAHA project was formally registered at AQoL platform to get access to validation resources and support.

## 10.1 What inclusion – exclusion criteria were used?

**Inclusion Criteria:** Subjects not meeting the EU Guidelines (2008) of being moderately active (at least 150min of moderate physical activity per week).



Assessment of this criteria will be completed during Week 0, when participants will complete self-reported measures obtained through the IPAQ Elderly short version<sup>4</sup>. (see appendix), and wearing the MWK (accelerometer) to objectively measure their current physical activity levels.

**Exclusion Criteria:** Individuals with the followings:



High CV risk (identified with the Technogym Health Risk Appraisal, HRA, see appendix). If risk is between low and moderate no medical disclaimer is necessary. If risk is high medical disclaimer is required to be accepted as participant in the project.



Any musculoskeletal disorder (acute or chronic) involving pain or limitations for exercise identified with the HRA.

The PAHA project used existing reporting of experiences from fitness centres that effective intervention programming for clients must contain very specific and scheduled meetings between the client and their personal trainer. From the early start of a “getting to know you” type of meeting through the pre-activity screening the ongoing relationship between the PT and client was vital.

The clients would be encouraged to attend the fitness centre for supervised exercising on 3 occasions each week – and at least 2 of these sessions would be with their own personal trainer. Other visits would also be programmed but could be taken with another qualified personal trainer on hand to help, correct and support the person exercising. By ensuring there were at least 2 pre-planned and booked sessions each week meant that the older adults starting the trials finished the 6 week intervention and in their own experience would have achieved self-fulfilling goals of feeling more confident, more able to exercise comfortably, improved sleeping and eating and a general sense of wellbeing.

Whilst it may seem labour-intensive to have so many fully supervised sessions this method really does work, and if an inactive person completes a 6 week trial on this basis they are much more likely to continue with the good practice. The percentage of people who started and completed the PAHA trials was 89%, which is a significant improvement on most other “self-starters” or people who start exercising without appropriate supervision.

Anecdotally, many of the PAHA clients also struck up new relationships and the social or third-space aspect of bringing similar-minded people together should not be underestimated in its positive outcomes. At each session the personal trainer had a responsibility to monitor and correct exercises and to gently adapt and progress the exercise regimes. Either by personal record-keeping or preferably through the accelerometers being used the data was accumulated to help with tracking and any necessary interventions to encourage the clients to turn up and effectively exercise.

This methodology can be easily replicated in other sporting settings, but the principle of close supervision and monitoring of results is essential.

<sup>4</sup> For translated versions of the IPAQ questionnaire visit: [https://sites.google.com/site/theipaq/questionnaire\\_links](https://sites.google.com/site/theipaq/questionnaire_links) (please note that the PAHA project used the short form of the elderly person version) Additional info regarding IPAQ tool at: <https://sites.google.com/site/theipaq/home>



## 10.2 Using “baseline” measurements

Week 0: (only 1 session)

- Session 1. IPAQ Elderly short version (about 5min).
- Session 1. AQoL-6D instrument to measure health-related Quality of Life (about 5min).
- Session 1. The trainer will create a user profile in the MW cloud, complete the health screening online questionnaire (Health Risk Appraisal) and assign a MWK for each participant. MWK will be worn throughout the ALL day (except for shower and sleeping time) for the whole week.



## 10.3 The programme for the intervention as explained to a client

WEEK ONE		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes	Explain the reason why of the 6 weeks, what and how they will do. Explain what aerobic exercise is.
Aerobic Exercise	30 min. of very light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	NO	
Stretching/Mobility Exercise	YES	Introduce gentle stretching exercises for lower body
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Physical Activity Mediators Survey	Completion of physical activity mediators survey composed for the program, based on the referenced questionnaires (1,3).
Aerobic Exercise	20 min. of light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Teach exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Introduce gentle stretching exercises for upper and lower body
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min	Reinforce the reason why of the 6 weeks, what and how they will do.
Aerobic Exercise	20 min. of light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Reinforce the importance of maintaining defined recovery time between sets
Stretching/Mobility Exercise	YES	Exercises for upper and lower body

<b>WEEK TWO</b>		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes	Using the STAGE model, and the results of the questionnaire, assessment of the participant, development of the action plan according to the PT Training Material guidance. Agreement and written declaration of the client adhering to the agreed action plan. Encouraging participants to conduct a diary of activity (training log) during the overall length of the programme.
Aerobic Exercise	20 min. of very light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Understanding Intensity and learning how to use it.	Discuss intensity as a critical element of exercise adherence and provide practical examples to facilitate the understanding of exercise intensity in different modes of exercise.
Aerobic Exercise	25 min of light to moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	5 min	Reinforce concept of intensity and impact in progressive adaptation to exercise.
Aerobic Exercise	25 min of light to moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	Single set of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique

WEEK THREE		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes	Discussion of individual's self-efficacy and coping skills. Providing feedback based on the survey results and obtaining agreement of actions to be completed. (4)
Aerobic Exercise	30 min. of very light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Different modes of exercise and its impact in health.	Inform and discuss the positive impact and evidence-based benefits of different modes of exercise in health status (aerobic exercise, resistance exercise, stretching exercise, other modes of exercise).
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	5 min	Ask open questions to participants related to health benefits of different modes of exercise. Reinforce understanding of key concepts.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 10 to 15 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique

<b>WEEK FOUR</b>		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes	Development of the action and coping plans for the regular controlled and non-controlled physical activity. Obtain written commitment from the client. (2)
Aerobic Exercise	30 min. of very light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise increasing load to meet reps goal (8 to 12 reps)
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Progression guidelines and rationale about progressive increase of exercise load	Define basic progression guidelines and discuss the rationale about progressive increase of exercise load.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	5 min	Follow up on understanding of progression guidelines.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique

<b>WEEK FIVE</b>		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes	Review adherence to the developed action, coping and self-efficacy improvement plans. Discussing the intermediate results and adjust plan according to the progress.
Aerobic Exercise	30 min. of very light aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique increasing/ maintaining load to meet reps goal (8 to 12 reps)
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Pre/post exercise safety practice (warm-up/cool down)	Discuss and inform about the rationale for warm-up/cool down Provide basic examples and offer practical advice
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	5 min	Follow up on understanding of progression guidelines.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique

<b>WEEK SIX</b>		
<b>SESSION #1</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	20 Minutes Completion of questionnaire as per initial questionnaire (w1) adding the post-evaluation type questions for the 6 weeks intervention program.	Reinforce participant's competence, relatedness and autonomy achieved during the 5 weeks period and develop a further coping and action plan for the 3 months period.
Aerobic Exercise	30 min. of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique increasing/maintaining load to meet reps goal (8 to 12 reps)
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #2</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	10 min Exercise Practice guidelines: 1. Enjoying exercise practice in a safe and tailored programme. 2. Integrating physical activity and exercise within lifestyle.	Engage the participant in a self-defined strategy to maintain active lifestyle.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique
<b>SESSION #3</b>		<b>NOTES</b>
Individual Counselling/ Behavioural change	5 min Give a T-shirt to the completing participants	Follow up on motivating participant and recognise the achievement.
Aerobic Exercise	30 min of moderate aerobic exercise	Choose the modality/equipment you prefer/is available
Resistance Exercise	2 sets of RT involving each major muscle group (4 exercises); 8 to 12 reps/2min recovery	Review exercise technique for each exercise reinforcing breathing and pace
Stretching/Mobility Exercise	YES	Review stretching exercises technique

## 11. The follow-up to maintain activity levels after the intervention

This Good Practice Guide is based on a very specific 6-week intervention that we know can have a positive effect to get people active to the benefit of their health. The objective of the intervention is, however, to ensure that these newly “converted” people to an active and healthy lifestyle actually stay active long after the 6 weeks have finished. We want to get significant numbers of older adults adopting a healthy lifestyle and some of the bad habits of previous times can easily creep back in.

The intervention should allow for regular contact to be made to help encourage and motivate them keep going, and if they are experiencing problems to offer suitable solutions and support. An obvious answer is to offer a membership to the club or facility so that their attendance and adherence to participation can be carefully monitored.

It is equally conceivable that others will want to go away from the structure of the club or facility to “do their own thing” and there is nothing wrong with this. Except, that all the evidence points to these people lapsing back into more sedentary lifestyles. It’s not difficult to set-up other support mechanisms to help these people to achieve reasonable levels of activity – most smart phones have the technology built-in and accelerometers are not expensive. Recording actual activity levels can be motivating and rewarding in itself.

If the six-week trial was successful and the formula for one-to-one instruction and support was given then anyone completing the trial will look and feel better. A gentle reminder of that state of satisfaction might be all that is needed.



*The innovative and disruptive value of PAHA project is coming from its holistic approach to integrate exercise counselling, exercise prescription and behavioural change within a 6-weeks intervention framework, in which inactive participants are exposed, guided and supported by exercise professionals to key basic concepts, effective stimulus and tools that will allow them to build their confidence to engage with a healthy and active lifestyle to transform their lives... It is about the value of small steps leading to a huge CHANGE.*

*It is about effectively supporting and guiding people in a journey to feel better, live longer and enjoy life...It is about the power of active living...*

*Professor Alfonso Jimenez, PhD, CSCS, NSCA-CPT, FLF Professor of Exercise Science & Health, Executive Director Centre for Applied Biological & Exercise Sciences, Coventry University*

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## 12. In a nutshell – how to plan and deliver a successful intervention in active ageing

<input checked="" type="checkbox"/>	Research and understand your market.
<input checked="" type="checkbox"/>	What are the best opportunities for the success of the proposed intervention?
<input checked="" type="checkbox"/>	What are the barriers to older adults taking up your offer?
<input checked="" type="checkbox"/>	What stops people exercising?
<input checked="" type="checkbox"/>	What is the “offer” that will make people change their mind and come to your action?
<input checked="" type="checkbox"/>	What are the ideas to knock-down the barriers?
<input checked="" type="checkbox"/>	Plan the complete campaign – from the initial idea to the successful completion
<input checked="" type="checkbox"/>	What are the resources available, team members, money, facilities, etc.
<input checked="" type="checkbox"/>	When is the best time to start the intervention?
<input checked="" type="checkbox"/>	What are the considerations of existing users?
<input checked="" type="checkbox"/>	Who is going to run the programme? It takes a team of managers, sales, technical trainers/coaches, and the follow-up
<input checked="" type="checkbox"/>	What is the effect on other workers at the club/facility – everyone needs to be engaged
<input checked="" type="checkbox"/>	What are the “guaranteed” rewards if someone takes part?
<input checked="" type="checkbox"/>	Who pays to support the intervention?
<input checked="" type="checkbox"/>	Who and how will the recruitment be done, and on what criteria?

<input checked="" type="checkbox"/>	Are there any special considerations of ethnicity, cultural, religious, disability issues that need to be planned into the action?
<input checked="" type="checkbox"/>	Who will do the technical training and induction for the sessions?
<input checked="" type="checkbox"/>	Will active ageing training skills be needed?
<input checked="" type="checkbox"/>	Who will undertake pre-activity readiness questionnaires – know where you start?
<input checked="" type="checkbox"/>	Who is taking the technical lead – are they qualified, competent and able to motivate?
<input checked="" type="checkbox"/>	Who is taking the administrative lead to make sure all the individual exercise sessions are booked?
<input checked="" type="checkbox"/>	Are reminders sent to ensure they turn up?
<input checked="" type="checkbox"/>	What happens with a re-booking for a “no show”?
<input checked="" type="checkbox"/>	Who is managing data protection, professional practice and confidentiality issues?
<input checked="" type="checkbox"/>	Does there need to be a liaison with local healthcare providers?
<input checked="" type="checkbox"/>	Who is running the PR and marketing – what permissions are needed?
<input checked="" type="checkbox"/>	Is there a plan to promote and record what is happening?
<input checked="" type="checkbox"/>	How do you measure the success of the intervention?
<input checked="" type="checkbox"/>	Who is tracking and recording individual activity levels?
<input checked="" type="checkbox"/>	What happens after the intervention – who does the follow-up?
<input checked="" type="checkbox"/>	How do you keep the new clients motivated and active?
<input checked="" type="checkbox"/>	What do you do with the results? Use standard methods of recording outcomes and practice

# 13. Appendices

## 13.1 NESTA



### PAHA Project - NESTA Standards Survey Questions

1. What is the name and location of your Centre?
2. Who was the PAHA programme coordinator / lead contact?  
First Name, Second Name, Job Title
3. Coordinator / lead contact details:  
Email Address:, Telephone:, Address, Programme Twitter:
4. In which country/region/city was the programme delivered?
5. How long has the programme been running in its proposed format?  
0 – 6 months, 6 – 12 months, If 'other', please provide details:
6. Where the aims and objectives of the programme presented and discussed with participants (click on those included)?  
Support whole population-groups to increase physical activity levels  
Support people with certain medical conditions to increase physical activity levels  
Support inactive people to increase physical activity levels  
Support weight loss  
Support social cohesion  
Support participation in sport  
Other (please specify)
7. How long does the programme have last?  
0 – 6 weeks, 6 - 12 weeks, 12 – 24 weeks, If you are planning to extend the programme, please provide details:
8. How many programme sessions have been delivered per week?  
1 session per week  
2 sessions per week  
3 sessions per week  
5 sessions per week  
Other (please specify)
9. How long does each programme session have last?  
0 - 10 minutes  
10 – 30 minutes  
30 – 45 minutes  
1 hour  
2 hours  
More than 2 hours  
Other (please specify)

**For the full survey go to:**

**[http://www.europeactive.eu/sites/europeactive.eu/files/projects/PAHA/PAHA\\_NESTAsurvey.pdf](http://www.europeactive.eu/sites/europeactive.eu/files/projects/PAHA/PAHA_NESTAsurvey.pdf)**

## 13.2 I-PAQ

IPAQ-E (English version)

### INTERNATIONAL PHYSICAL ACTIVITY QUESTIONNAIRE

Name..... Sex (F/M) Age.....yrs

We are interested in finding out about the kinds of physical activities that people do as part of their everyday lives. The questions will ask you about the time you spent being physically active in the last 7 days.

Please answer each question even if you do not consider yourself to be an active person. To describe the intensity of the physical activity, two terms (Moderate and Vigorous) are used:

Moderate activities refer to activities that take moderate physical effort and make you breathe somewhat harder than normal.

Vigorous physical activities refer to activities that take hard physical effort and make you breathe much harder than normal.

Thank you for participating!

1. The first question is about the time you spent sitting during the last 7 days. Include time spent at work, at home, while doing course work and during leisure time. This may include time spent sitting at a desk, visiting friends, reading, or sitting or lying down to watch television.

During the last 7 days, how much time did you spend sitting during a day? \_\_\_\_ hours \_\_\_\_ minutes

2 Think about the time you spent walking in the last 7 days. This includes at work and at home, walking to travel from place to place, and any other walking that you might do solely for recreation, sport, exercise, or leisure.

During the last 7 days, on how many days did you walk for at least 10 minutes at a time? \_\_\_\_\_ Days.

How much time did you usually spend walking on one of those days? \_\_\_\_ hours \_\_\_\_ minutes.

3. During the last 7 days, on how many days did you do moderate physical activities like gardening, cleaning, bicycling at a regular pace, swimming or other fitness activities.

Think only about those physical activities that you did for at least 10 minutes at a time. Do not include walking \_\_\_\_\_ Days.

How much time did you usually spend doing moderate physical activities on one of those days? \_\_\_\_ hours \_\_\_\_ minutes.

4. During the last 7 days, on how many days did you do vigorous physical activities like heavy lifting, heavier garden or construction work, chopping woods, aerobics, jogging/running or fast bicycling?

Think only about those physical activities that you did for at least 10 minutes at a time \_\_\_\_\_ Days.

How much time did you usually spend doing vigorous physical activities on one of those days? \_\_\_\_ hours \_\_\_\_ minutes.

## 13.3 PAR-Q

Physical Activity Readiness  
Questionnaire - PAR-Q  
(revised 2002)

# PAR-Q & YOU

(A Questionnaire for People Aged 15 to 69)

Regular physical activity is fun and healthy, and increasingly more people are starting to become more active every day. Being more active is good for you. However, some people should check with their doctor before they start becoming much more physically active.

If you are planning to become much more physically active than you are now, start by answering the seven questions in the box below. If you are between the ages of 15 and 69, the PAR-Q will tell you if you should check with your doctor before you start. If you are over 69 years of age, and you are not used to being very active, check with your doctor.

Common sense is your best guide when you answer these questions. Please read the questions carefully and answer each one honestly: check YES or NO.

YES	NO	
<input type="checkbox"/>	<input type="checkbox"/>	1. <b>Has your doctor ever said that you have a heart condition <u>and</u> that you should only do physical activity recommended by a doctor?</b>
<input type="checkbox"/>	<input type="checkbox"/>	2. <b>Do you feel pain in your chest when you do physical activity?</b>
<input type="checkbox"/>	<input type="checkbox"/>	3. <b>In the past month, have you had chest pain when you were not doing physical activity?</b>
<input type="checkbox"/>	<input type="checkbox"/>	4. <b>Do you lose your balance because of dizziness or do you ever lose consciousness?</b>
<input type="checkbox"/>	<input type="checkbox"/>	5. <b>Do you have a bone or joint problem (for example, back, knee or hip) that could be made worse by a change in your physical activity?</b>
<input type="checkbox"/>	<input type="checkbox"/>	6. <b>Is your doctor currently prescribing drugs (for example, water pills) for your blood pressure or heart condition?</b>
<input type="checkbox"/>	<input type="checkbox"/>	7. <b>Do you know of <u>any other reason</u> why you should not do physical activity?</b>

**If  
you  
answered**

### YES to one or more questions

Talk with your doctor by phone or in person BEFORE you start becoming much more physically active or BEFORE you have a fitness appraisal. Tell your doctor about the PAR-Q and which questions you answered YES.

- you may be able to do any activity you want — as long as you start slowly and build up gradually. Or, you may need to restrict your activities to those which are safe for you. Talk with your doctor about the kinds of activities you wish to participate in and follow his/her advice.
- out of health community programs are safe and helpful for you.

### NO to all questions

If you answered NO honestly to all PAR-Q questions, you can be reasonably sure that you can:

- become much more physically active — begin slowly and build up gradually. This is the safest and easiest way to go.
- partake fitness appraisal — this is an excellent way to determine your basic fitness so that you can plan the best way for you to live actively. It is also highly recommended that you have your blood pressure evaluated. If your reading is over 144/94, talk with your doctor before you start becoming much more physically active.

### DELAY BECOMING MUCH MORE ACTIVE:

- you are not feeling well because of a temporary illness such as a cold or a fever — wait until you feel better; or
- you are or may be pregnant — talk to your doctor before you start becoming more active.

**PLEASE NOTE:** If your health changes so that you then answer YES to any of the above questions, tell your fitness or health professional. Ask whether you should change your physical activity plan.

**Informed Use of the PAR-Q:** The Canadian Society for Exercise Physiology, Health Canada, and their agents assume no liability for persons who undertake physical activity, and if in doubt after completing this questionnaire, consult your doctor prior to physical activity.

**No changes permitted. You are encouraged to photocopy the PAR-Q but only if you use the entire form.**

NOTE: If the PAR-Q is being given to a person before he or she participates in a physical activity program or a fitness appraisal, this section may be used for legal or administrative purposes.

"I have read, understood and completed this questionnaire. Any questions I had were answered to my full satisfaction."

NAME \_\_\_\_\_

SIGNATURE \_\_\_\_\_

DATE \_\_\_\_\_

SIGNATURE OF PARENT  
or GUARDIAN (for participants under the age of majority) \_\_\_\_\_

WITNESS \_\_\_\_\_

**Note: This physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if your condition changes so that you would answer YES to any of the seven questions.**



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## 13.4 The Technogym Health Risk Appraisal

### Health Risk Appraisal



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#### Introductory guide for interpreting the results

##### What is HRA?

The Health Risk Appraisal (HRA) is a questionnaire regarding health conditions, which is useful for providing single individuals or companies/organisations with a cardiovascular risk assessment and a measurement of the readiness to adopt a more active lifestyle. HRA is also used to collect information about the main skeletal muscle problems. The Technogym HRA is based on two instruments that are widely used in the medical/scientific field: the AHA/ACSM questionnaire (American Heart Association and American College of Sports Medicine) which is used to classify the cardiovascular risk into three levels (low – moderate – high) and the 'transtheoretical model' questionnaire, which is used to identify an individual's readiness to adopt new healthy behaviour.

##### Who needs the HRA?

The HRA is of use to individuals so they can obtain a quick assessment of their own level of cardiovascular risk. It is of use to human resource managers so they can quickly discover the 'health condition' of the company. Company employees can also be divided into groups and compared with each other. In the same way, the same group of people can be compared over time. Technogym suggests carrying out the questionnaire at least once a year.

##### What are the risk factors?

These are parameters that indicate the likelihood of the onset of a cardiovascular pathology. Their absence does not exclude the presence or appearance of a cardiovascular pathology. Their presence considerably increases the risk of onset. The cardiovascular risk factors can be divided as follows: Risk factors that cannot be modified: Age, Gender, Family history. Risk factors that can be modified: Smoking, Sedentary lifestyle, Obesity, Hypertension, Hyperglycemia, Dyslipidaemia. The risk factors that can be changed are of particular importance because they can be corrected through lifestyle changes. A corporate Wellness program targeted towards increasing the level of physical activity and promoting a correct diet can have a substantial impact towards reducing the presence of risk factors.

##### How is the risk level calculated?

The answers to the questions are translated into a result, the 'risk level'. The calculation algorithm that produces the message regarding the 'risk level' is based on a scientific publication of the American College of Sports Medicine (AHA/ACSM Health/Fitness Facility Preparticipation Screening Questionnaire. Med Sci Sports Exerc. 1998;30(6):1009-18).

For the full survey go to:

[http://www.europeactive.eu/sites/europeactive.eu/files/projects/PAHA/PAHA\\_HRA\\_TEchnogym.pdf](http://www.europeactive.eu/sites/europeactive.eu/files/projects/PAHA/PAHA_HRA_TEchnogym.pdf)

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## Editor's note:

Further information on the PAHA project can be found at [www.europeactive.eu](http://www.europeactive.eu).

This Good Practice Guide has been compiled with many contributions from experts and partners who worked on the PAHA project which is gratefully acknowledged. A special mention should be made of Professor Alfonso Jimenez and Jan Middelkamp for their kind cooperation and contributions.

Cliff Collins, Brussels, September 2016



EuropeActive is the leading not-for-profit organisation representing the whole of the European health and fitness sector, and is based in Brussels. The European health and fitness sector serves over 52 million consumers, generates 26.7 billion Euro in revenues, employs 650,000 people, and consists of 51,200 facilities (Deloitte Market Report 2015).

Alongside its significant economic contribution, the sector has a major role to play in making a more active and healthy Europe. EuropeActive aims to co-operate with the European Union and other international organisations to achieve its objective to get more people, more active, more often.

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Exercise is medicine! But do people take the medicine? And for how long? Nowadays there is a lot of evidence that physical activity and exercise are beneficial for our health. But, despite this being the case, the question remains as to how we can help people to take this “medicine” regularly enough so that they gain the multiple health-related benefits arising from health-enhancing physical activity?

Research shows that approximately 50% of all people drop out of an exercise/activity programme within the first six months. For this reason motivation and behaviour change are crucial topics as it is necessary to help people to first of all start exercising and then to stick to the activity prescription. It is not just about prescribing exercise or activity because motivation and behavioural change are also main topics in promoting and sustaining a healthy and active lifestyle. To support members, clients, and in this case older adults to start exercising and then to keep going requires a specific plan or programme of support.

In this Good Practice Guide, there are recommendations of how an effective intervention can be built to help support, motivate and encourage currently inactive older adults to start exercising at a level that is beneficial to their health – and importantly to maintain these levels after the intervention has ended. The recommendations are based on the experiences and findings of the PAHA project which was co-funded by the European Union through the Erasmus+ Programme.

Personal trainers, fitness instructors, and sport coaches, and many more will learn about the essentials of motivation and behavioural change and how to plan a specific interaction and build practical strategies to encourage older adults to start exercising.

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