



Newsletter PEN-3S

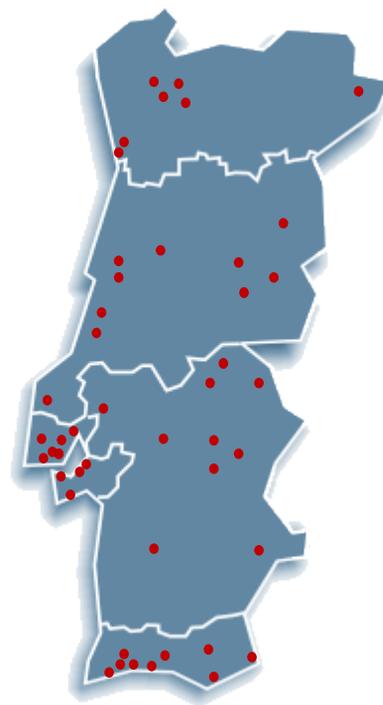
Epidemiological study PEN-3S is collecting data on elderly people nutritional status countrywide

Currently a 7-person team of interviewers is conducting face-to-face computer-assisted interviews to people over 64 residing in nursing homes.

Data collection is taking place countrywide in all 7 regions: North, Center, Lisbon, Alentejo, Algarve and Autonomous regions of the Azores and Madeira.

To perform this task all interviewers received specific training and have to date conducted 1135 interviews.

Many thanks to all nursing homes and participants who have kindly welcomed the PEN-3S team and allowed this project to become a reality.



Healthy Lifestyle Festival took place on March 4th

The event dedicated to science, culinary arts and healthy lifestyles took place at University of Lisbon Faculty of Sciences and Mercado da Ribeira.

The morning activities started with a conversation about ageing, longevity and geriatric medicine. Professor Gorjão Clara, MD, the PEN-3S project principal investigator, gave a presentation entitled "The Path to Geriatric Medicine".

Nutricionist Teresa Madeira, the PEN-3S project coordinator was a member of the round table organized by University of Lisbon Food, Farming and Forestry School (F3 School) where themes such as food composition, elderly people nutrition and sustainable food consumption were debated.

During the evening the event continued at Mercado da Ribeira where the participants were able to intervene in discussions about food and nutrition and also try dishes cooked by Chef Hélio Loureiro who held a show cooking.



"Vitality and Ageing" masters course students and teachers visit Portugal

On March 9th the PEN-3S team was able to share their experience with "Vitality and Ageing" masters students from Leid University in Netherlands.

The gathering took place at the Preventive Medicine and Public Health Institute of University of Lisbon Faculty of Medicine and was held during a trip these students took to Portugal. Among participants was Dr. Pedro Grilo, a representative from Lisbon Mayor's Office. The following day the students visited Hospital Pulido Valente where Professor Gorjão Clara, MD, is the attending physician in the the Geriatric Medicine specialty appointments.

In the two following pages we share the visiting students account of their trip to Portugal and their research on videogames intervention to improve balance in elderly people's.



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Study trip to Portugal!



**By Dr Santosh K Yatnatti,
Master student in Vitality and
Ageing, Leyden academy**

It was indeed a tricky decision for us, the master students in Vitality and Ageing, Leyden academy, The Netherlands, to choose a country for our study trip. Surprisingly, we all chose to visit Portugal in the end.

The major attractions for choosing Portugal was the eagerness to know the geriatric care and policy, considering the influence of its cultural background and economic scenario.

Our first destination was in the amazing city of Porto. The study trip was divided into academic mornings and social evenings, which sounds interesting, right? We had academic sessions by UNIFAI (Unidade de Investigação e Formação sobre Adultos e Idosos), an organization working towards geriatric care and ISPUP (Institute of Public Health, University of Porto), an institution working comprehensively towards geriatric research. The sessions were indeed very innovative and gave us insights about the ongoing projects and their predicted outcomes.

The next exciting and interesting destination was of course Lisbon, the capital city of Portugal. We had a fascinating session by Mr. Pedro Grilo, who is a policy adviser in Lisbon City Council. His session provided us the interesting facts and policy changes, which occurred across the years. It was also surprising for us to observe and realize that the fertility rate of Portugal is the lowest among European countries in spite of its repeated economic crisis, which is indeed impressive!!!

The final and interesting sessions were on demography of Portugal by Nuno Santos and the Portuguese elderly nutritional status surveillance system (PEN-3S) project by Teresa Madeira (Instituto de Medicina Preventiva e Saúde Pública da Faculdade de Medicina, Universidade de Lisboa). The project focuses on the nutritional status of elderly living in Portugal. The major focus of the study was to have a database on individuals' food intake and dietary habits, which was not updated since 1980. Also, the project aims to develop a nutritional risk screening and referral system. In my opinion this ongoing project will have huge impact in prevention of non-communicable diseases in elderly and would help in increasing the overall quality of life, thereby leading to progress of the country at large.

We also had a final visit to Hospital Pulido Valente, which provides geriatric care facilities headed by Prof. Joao Gorjão Clara who is fighting really hard to introduce geriatrics as a specialty in Portugal medical system.

To conclude, the study trip to Portugal was an overwhelming experience in terms of knowledge, hospitality, culture, charm of beautiful old cities, Portuguese cuisine and temperate climate, which will remain a memorable experience throughout our lives.

Videogames intervention to improve balance in the elderly population



Victor Ruiz, Master student in and Ageing, Leyden academy

I want to take the opportunity to share with you a project that we are conducting in Leiden.

Balance is the ability of maintaining body posture to perform different activities and to respond appropriately to outside stimuli. This ability is often impaired in elderly people, varying according to the subject. The deterioration occur mostly due to age-related physiological changes. At long term, impaired balance increases the risk of falling, which is a common event in this population, and can produce bruises, fractures, or in the worse scenario, death. Likewise, decreased balance affects function and gait, and therefore, impact on the general mobility.

To manage this problem, it is well recognized the role of physiotherapy to improve balance. Currently, many methods exist, such as muscular strengthening, proprioceptive exercises, or if the clinical setting have resources, the utilization of very specialized equipment. Nevertheless, since the mid 2000's years, available commercial videogames technology start to be a potential option to train balance in the elderly population. Examples of these devises are the Nintendo Wii, Microsoft Xbox or Play Station Eye Toy. These systems have sensor movements and other technical features that permit the user to engage physically in virtual environments that demand corporal motion. Therefore, this emerging technologies have potential therapeutic value to train balance and in being a more interactive option, compared to standard therapies.

Up to date, different studies have been conducted among wide populations' samples that include community-dwelling individuals, healthy and non-healthy nursing homes residents, retirement villages dwellers, hospital patients and subjects living independently. The evidence suggests advantage of videogames balance training over no intervention, besides other positive characteristics such as more compliance, novelty, enjoyment and better engagement by the user.

Furthermore, videogames training have been proposed to treat consequences of stroke and Parkinson diseases. However, there are not yet definitive conclusions for this approach. Main setbacks are the heterogeneous samples' characteristics, the methodological quality of the studies and the fact that, often, the commercial software for the platforms is not designed specifically for elder patients.

There are still a lot of opportunities to develop in this field. Evidence suggest that this kind of technologies is feasible because of its novelty, interaction possibilities and price. Even some researchers have designed their own software to address specific interventions by using the same commercial platforms. This is an example that technology can improve our life if the human value is the first aim.

Pu, F., et al. (2015); Booth, V., et al. (2013); dos Santos Mendes, F. A., et al. (2012); Hsieh, W. M., et. al (2014).

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