

BOOKLET OF RESEARCH ON THE ELDERLY LIVING AT HOME IN URBAN AREAS AND ASSISTED BY HOME HELP SERVICE



PETHRA is a strategic partnership project for higher education (2015-1-FR01-KA203-015057) funded by the European Commission. This project has several objectives.

The 1st objective is the creation of a serious game for European physiotherapy students, giving them the opportunity to improve their clinical approach to the elderly regarding the prevention of the risks of falls.

The 2nd objective is the creation of a MOOC aimed at the trainers and professors of the various institutes using the serious game and willing to create clinical cases for their students.

The 3rd objective is the creation of a booklet of research on the elderly living in the city of Bègles.

The city of Bègles, a project partner, has 23% of elderly people, which is a very representative percentage of the European elderly population. The home helpers working with these elderly people are among the professionals who know best their living space.

This booklet of research on the elderly fulfills several objectives:

- A better understanding of the elderly, their environment, their lifestyle and their health by having access to the most representative sample of the elderly population of the city of Bègles. These data provide additional information for the design of the serious game clinical cases by giving the most accurate representation of the living space of the elderly, which is little or unknown by physiotherapists as they rarely operate at home.
- Positioning home helpers as “whistle-blowers” to the professionals operating in the homes of the elderly, regarding several key points.

These objectives were achieved through several stages:

- Project presentation to the 32 home helpers from the CCAS (Community center for social action) of Bègles
- Initiation of the work with 10 home helpers who responded positively to the project:
 - o Séverine ARNOULD,
 - o Catherine BIEREN,
 - o Martine CHAPERON,
 - o Maria-Conception COCURON,
 - o Sophie DERCO,
 - o Marie-Christine GLINY,
 - o Chantal LONG,

- Karine MADORRE,
 - Nathalie MARTINEZ,
 - Marie-Pascale TREILLIE.
-
- Creation of a questionnaire targeting four major areas regarding the elderly: better knowledge of the person, his/her environment, his/her lifestyle and his/her health. This questionnaire was drawn up by the home helpers with the help of a geriatrician from the Red Cross IRFSS Aquitaine.
 - Each home helper has filled in approximately 10 questionnaires for her beneficiaries, which enabled to constitute a statistically reliable basis.
 - A statistical study has been made by the IRFSS Aquitaine and enriched by testimonies of the beneficiaries and the home helpers and by European data on the elderly.
 - Realization of case studies from real situations seen by the home helpers – formulation of warning indicators for the health and social professionals operating at the elderly's homes.
 - Finalization of the booklet.

The booklet is divided in 2 parts:

- I. A statistical study of a sample of elderly people in the city of Bègles
- II. Case studies and indicators presentation



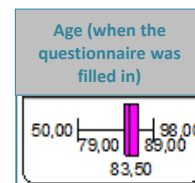
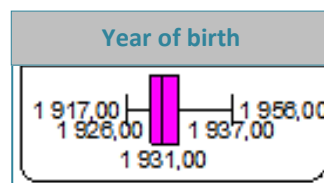
Home helpers from the CCAS of Bègles who took part in the creation of the booklet

I. STATISTICAL STUDY

I.1. IDENTITY

Age and year of birth

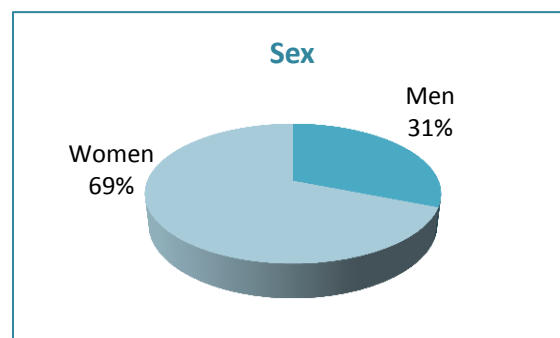
The average year of birth of the elderly studied is 1931, corresponding to an average age of 83.50.



Sex

More than 2/3 of the elderly studied are women.

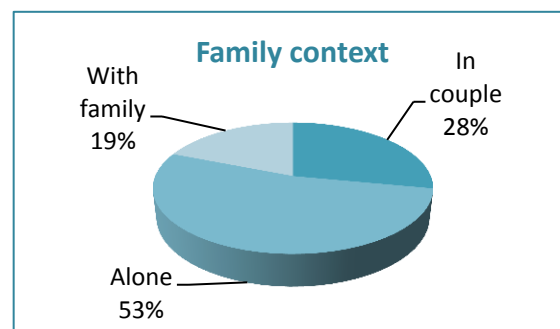
At European level, the women percentage is almost the same and represents 57.5% of the elderly (data from europa.eu, 2011). The difference can be explained by the sampling of Bègles population, who is older (being on average 83.5 years old); that induces an overrepresentation of women because of their life expectancy in France. People in their sixties are less represented.



Family context

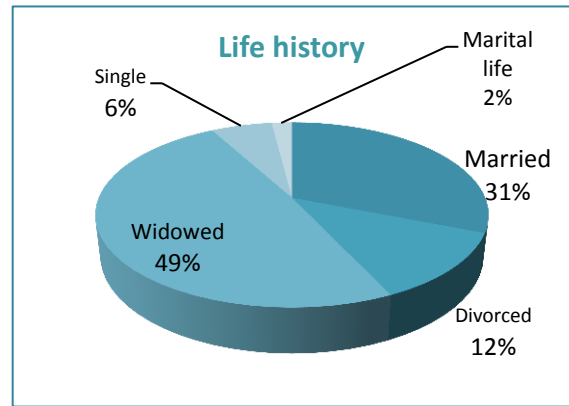
There is a relatively equitable sharing between people living at home alone (53.1%) and people living in couple or with their family (47%).

The percentage of people living alone is higher than the European average which is 31.4% (data from europa.eu, 2011). This percentage varies according to the countries of the PETHRA partnership: 37% for France, 24.7% for Portugal and 23.3% for Spain. These two last countries still have a strong family tradition, which means that many of the elderly stay with their children. The high percentage of our elderly population in Bègles can be explained by the sample chosen, which corresponds to home help service beneficiaries. Couples may be less dependent on home helpers.



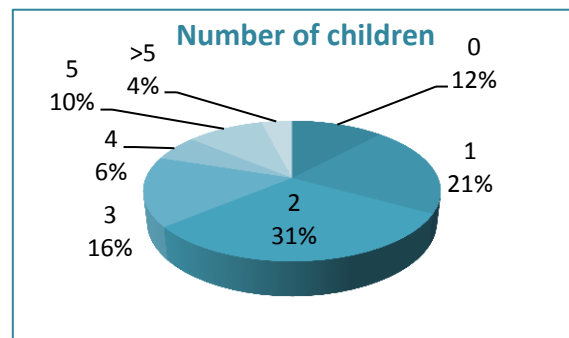
Life history

1 person in 2 is widowed. Almost 1/3 of the elderly studied are married. Hence, the majority of them have been married.



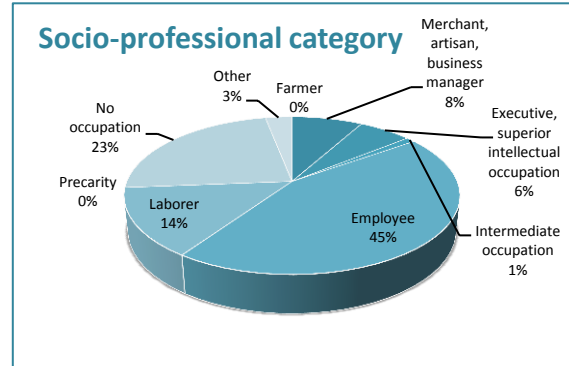
Number of children

2/3 of the elderly studied had between 1 and 3 children and a majority of them had 2 children. It should be noted that almost 1 person in 6 had 5 or more children.



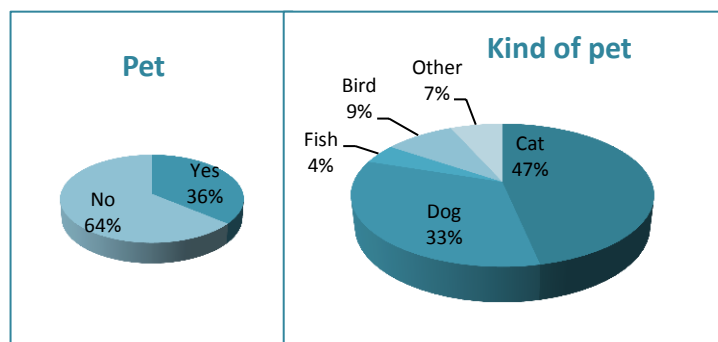
Socio-professional category

In the past, half of the elderly studied were “employees” or “laborers” (according to the PCS French classification). 1/4 had no professional activity. At European level, farmers are the most represented category, with more than 1/4 of the elderly involved in this activity (data from europa.eu, 2011). The major difference between our population in Bègles and the European average can be explained by the living area. Indeed, the elderly of Bègles live in an urban area.



Pets

1/3 of the elderly studied own a pet, mostly cats and dogs.

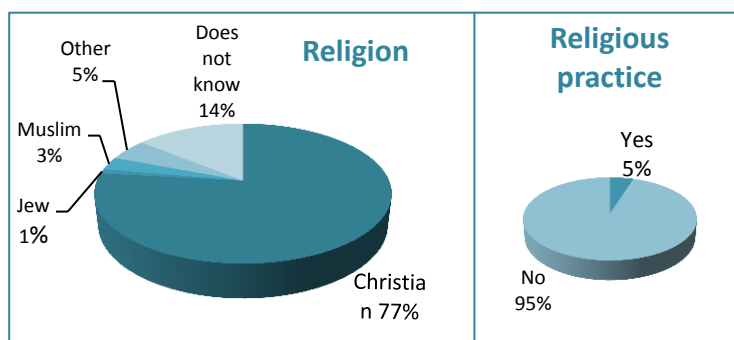


Religion and religious practice

¾ are Christians and almost all of them are not practicing.

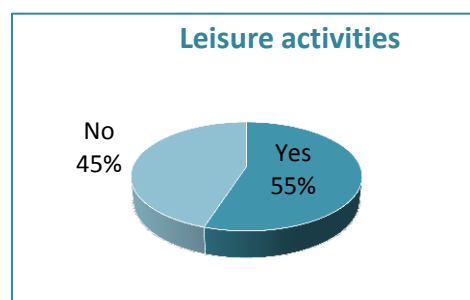
Séverine, 28 years old,

“As a home helper, I noticed that it is essential to take into account the practices and customs of the elderly we work with, in order to build a trusting relationship.”



Leisure activities

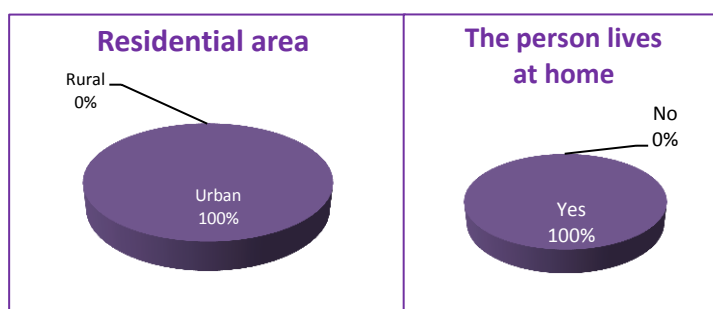
More than half of the elderly studied have leisure activities.



I.2. ENVIRONMENT

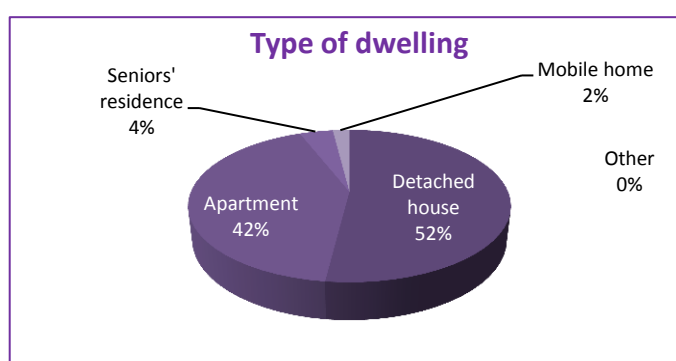
Housing

Given our sample, it is quite normal that all the elderly studied live in town at home.



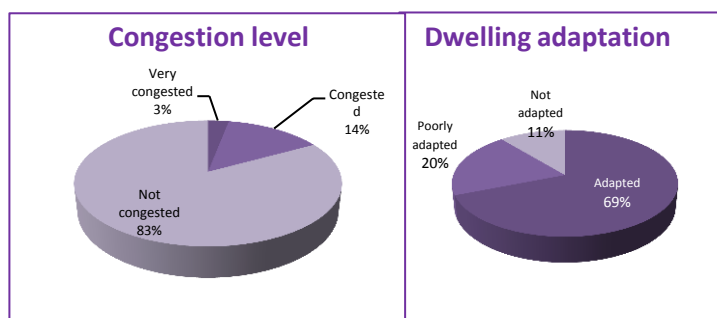
Type of dwelling

Almost all of them live in equal proportions either in a detached house or an apartment.



Congestion level and dwelling adaptation to the elderly

More than 2/3 of the dwellings are adapted to the elderly, especially thanks to a lower congestion level. For almost 1/3 of them, the dwelling is considered as poorly or not adapted.

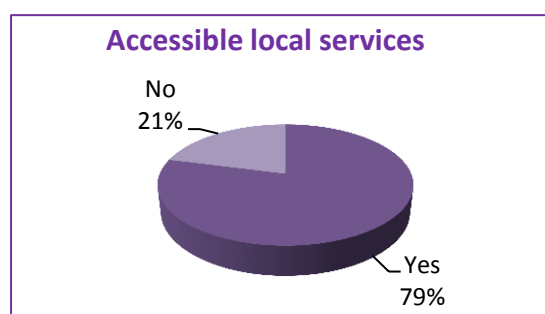


Catherine, 50 years old,

"I have been working as a home helper since many years and I realized that dwelling adaptation is a major element for their well-being, and especially to keep them at home. We often alert when the accommodation is poorly or not adapted. It can be difficult for the elderly to realize that they need to do work in their home to adapt it to their aging or declutter it to prevent falls. The notion of housing congestion is indeed a very subjective notion."

Local services accessibility

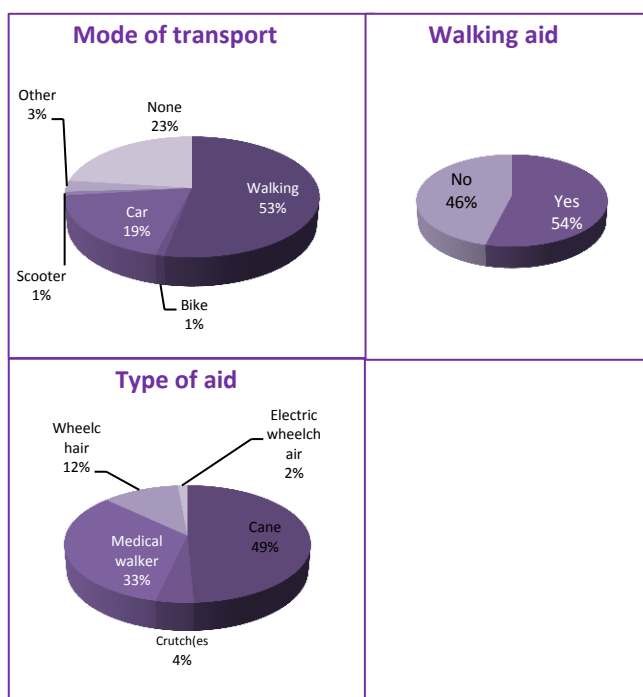
The place of residence in urban area explains that more than ¾ of the elderly studied declare that they have accessible local services.



Transport modes and walking aids

Walking is the preferred transport mode (52.5%). However, almost ¼ of them do not leave their home anymore.

More than 1 person in 2 has a walking aid like a cane or a medical walker.



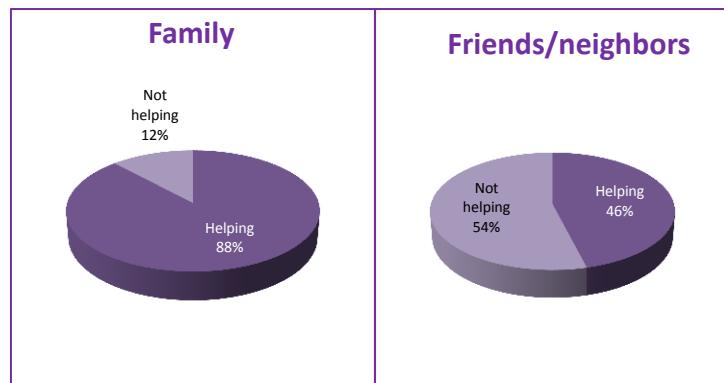
Entourage presence

The elderly studied have a present family. Indeed, more than $\frac{3}{4}$ of them have family members or neighbors helping them, the family being more helpful than the neighbors or friends.

Nathalie, 45 years old,

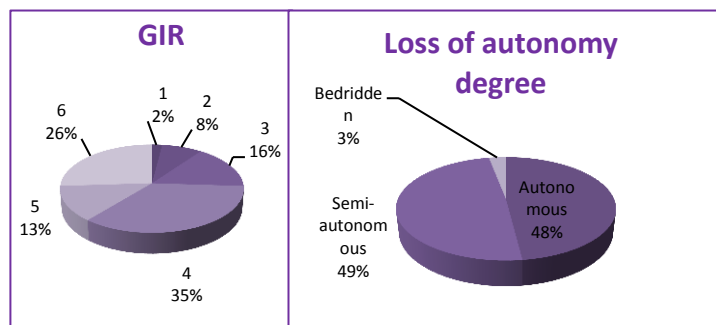
"My mother has a home help service and as a home helper, I

like to follow the interventions in her home. I come by at least once a week to visit her and read the notebook at our disposal."



Autonomy

As we can see on the GIR scale (French classification regarding the degree of autonomy), the majority of them are autonomous or semi-autonomous, with $\frac{3}{4}$ of them having a GIR greater than or equal to 4, corresponding to a full autonomy or a partial loss of autonomy.

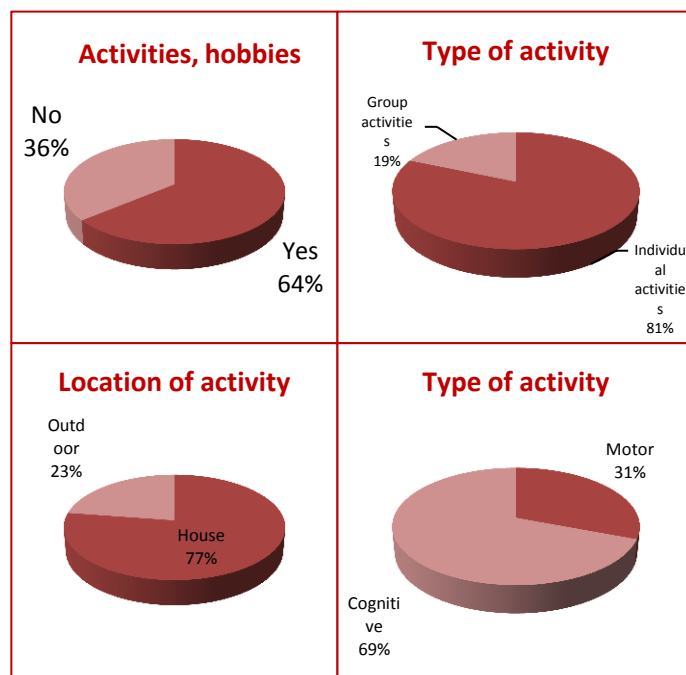


I.3. LIFESTYLE

Leisure activities

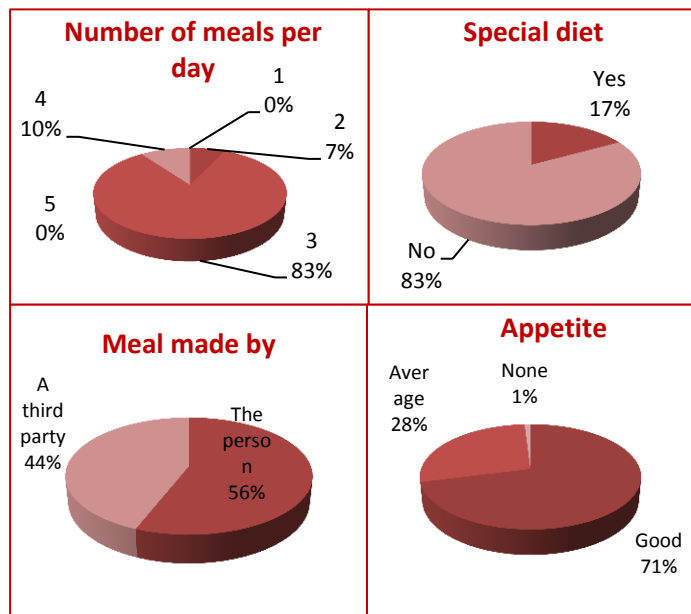
The elderly studied engage in leisure activities, mainly in cognitive activities such as crossword, reading..., very often at home and alone.

Few people engage in group activities and outdoor activities. Thus, these people are relatively sedentary and seem to have little contact with the outside world, except for their family.



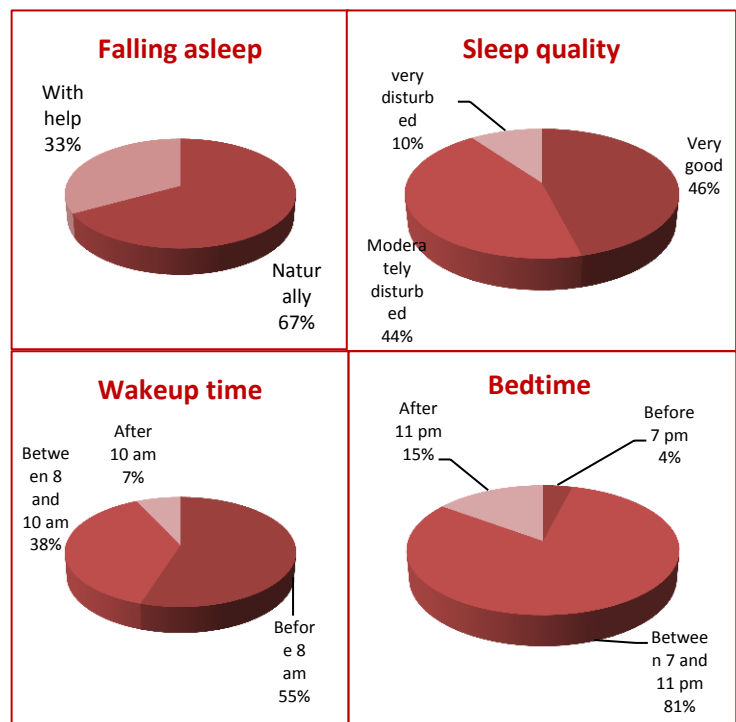
Food hygiene

More than $\frac{3}{4}$ of the elderly studied eat 3 meals a day. 8 in 10 people do not have a special diet. Slightly more than half of them prepare their meals themselves. They generally have a good appetite for 7 in 10 of them.



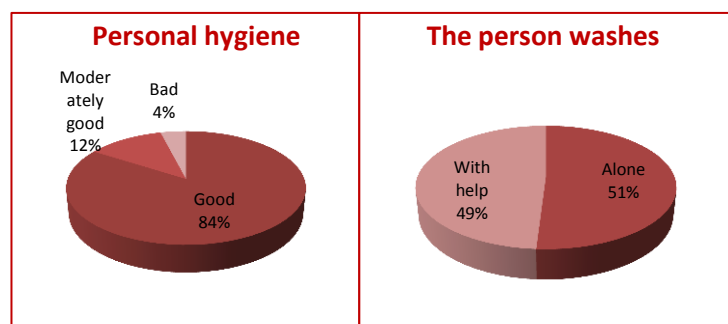
Sleep

The elderly studied wake up quite early (before 8 am) and go to sleep relatively early (between 7 pm and 11 pm). Even though the majority goes to sleep without medical help, more than half of them have a very or moderately disturbed sleep.



Personal hygiene

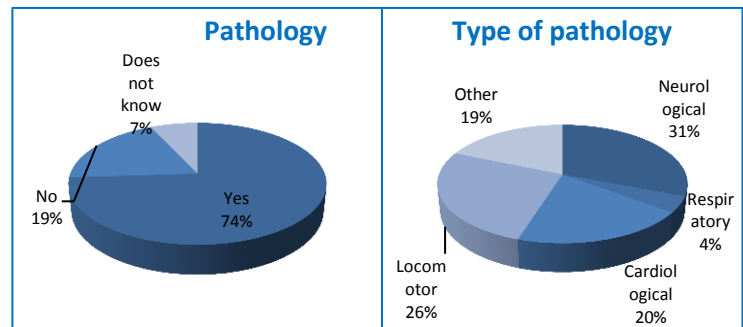
The elderly studied have a good personal hygiene. But more than 1 person in 2 washes with the help of someone.



I.4. MEDICAL ASPECT

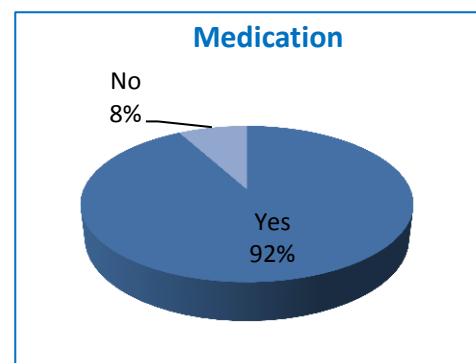
Pathology and type of pathology

2/3 of the elderly studied have health problems. Their known pathologies are mainly linked to neurological, locomotor or cardiological problems.



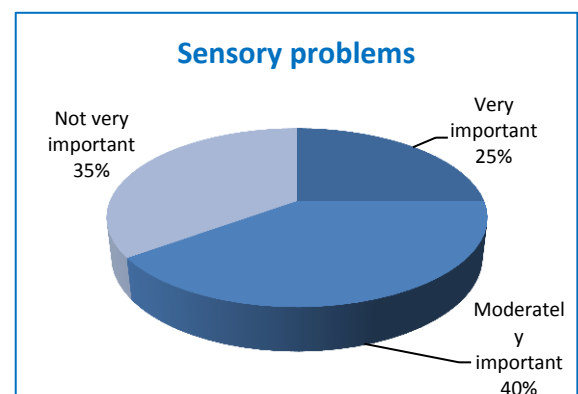
Medication

Almost all of them have a medical treatment.



Sensory problems

More than 1 person in 2 has sensory problems (sight, audition, vertigo) from moderately to very important.



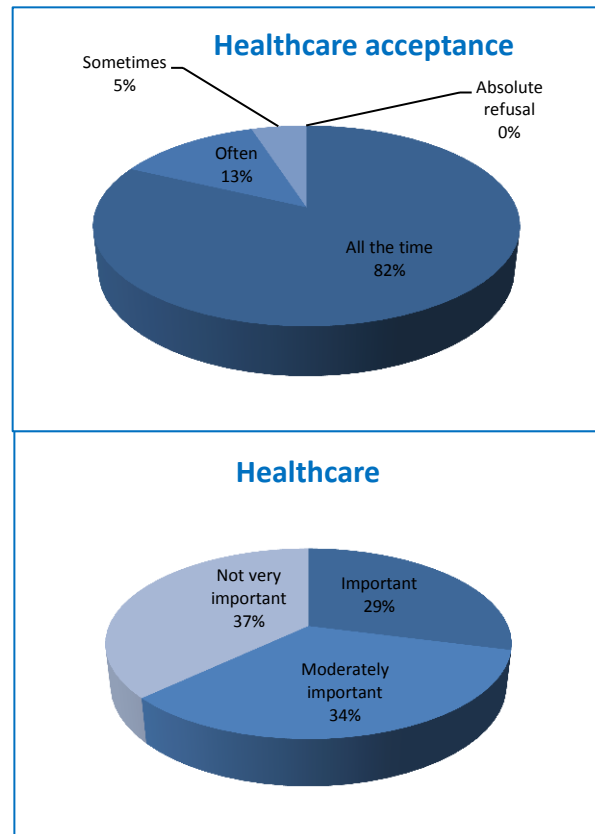
Healthcare and acceptance of the healthcare personnel

2/3 of the elderly studied have relatively important healthcare.

They easily accept the care proposed (physiotherapists, nurses, home helpers). There are few refusals.

Jeanne, 87 years old,

"At the beginning, I had a hard time accepting a home helper. Gradually, this person knew how to win my trust. Now, we do housework together, which helps me to stay fit".



I.5. TYPICAL PROFILE OF THE ELDERLY LIVING IN BÈGLES AND ASSISTED BY HOME HELP SERVICE

Thanks to this statistical study, we can describe the typical profile of an elderly person living at home and assisted by home help service in the city of Bègles.

It is a woman born in 1931 who is 83 years old.

She is a widow and she lives alone. She had 2 children who are present for her.

During her professional life, she was an employee.

She has hobbies.

She is a Christian but not practicing.

She owns a cat.

She lives in Bègles, therefore in an urban area, near to local services.

She lives in a house, which is little congested and adapted to elderly people.

Most of the time when she goes outside she walks, with a walking aid, which is a cane.

She is surrounded by her relatives.

She has a slight loss of autonomy, placing her as 4 on the GIR scale.

She has hobbies, that she practices generally alone and at home and that enable her to stimulate her memory.

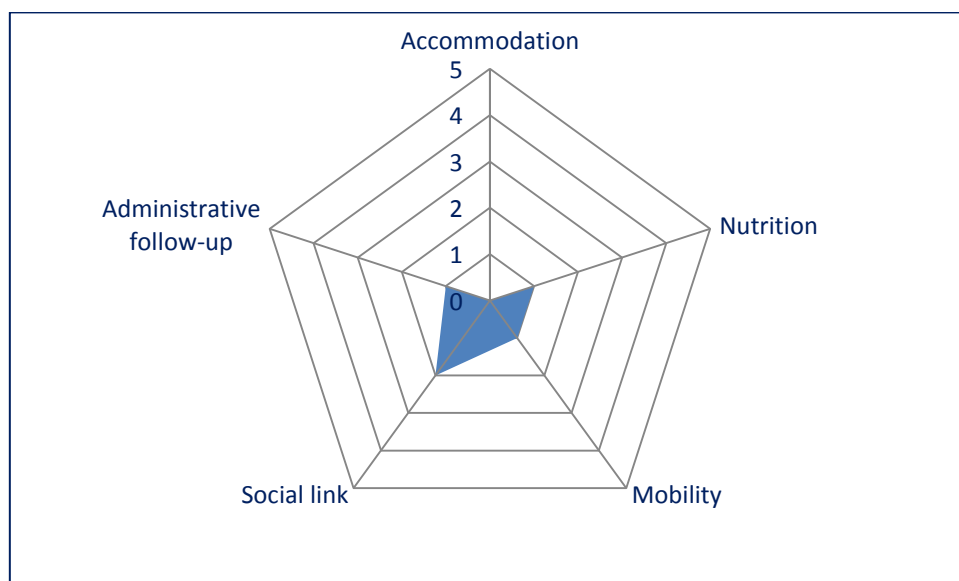
She eats normally, has good appetite and prepares her meals herself.

She sleeps well enough, wakes up and goes to bed at regular hours.

She has a good personal hygiene and generally washes herself without help.

From a medical point of view, she has a condition, rather a neurological one, and she has hearing or vision problems.

She takes medicine. Her healthcare is relatively important. She accepts very well the care provided.



II. CASE STUDIES

The case studies below have not been realized from a scientific analysis of the situation of elderly people living at home, neither from a medical analysis, but rather from a pragmatic analysis of the situation. For each case, we tried to define an existing or future problem, through several criteria, inducing a risk that could prevent the elderly from living in their home.

The chosen criteria are the following:

- Accommodation,
- Nutrition,
- Mobility,
- Social link,
- Administrative follow-up.

We can evaluate the risk for the elderly for each criterion by trying to answer the following questions:

- Does the dwelling present one or several risk(s) that could prevent the elderly person from living in his/her home?
- Does the nutrition of the elderly person present one or several risk(s) for his/her well-being?
- Does the elderly person move easily in his/her dwelling and outside?
- Is the elderly person surrounded and well looked after? Does his/her situation present a risk of social isolation?
- Is the elderly person able to handle his/her paperwork? Is there a close family member that can help him/her?

By adding up the number of identified dangers for each criterion, on a scale from 1 to 5, it is possible to evaluate what could prevent the elderly person from staying at home.

Score = 0. The situation does not present any risk

Score = 1. The situation presents a very low risk

Score = 2. The situation presents a low risk

Score = 3. The situation presents a significant risk

Score = 4. The situation presents a very significant risk

Score = 5. The situation does not allow the elderly person to stay at home, new solutions are required.

By gathering all data, the closer to 5 the scores get, the more critical the situation becomes.

The table below presents examples for the evaluation of all criteria.

	The score is 0 when :	The score is 1 point when the dwelling presents at least 1 risk	The score is 2 points when the dwelling presents at least 2 risks	The score is 3 points when the dwelling presents at least 3 risks	The score is 4 points when the dwelling presents at least 4 risks	The score is 5 points when the dwelling presents at least 5 risks
Accommodation	Access and life in the dwelling do not present any obstacle for the elderly person.	1/ The dwelling is located on the 3rd floor without elevator.	1/ The bedrooms are upstairs. 2/ There is not any toilet upstairs.	1/ The bedrooms are upstairs. 2/ There is not any toilet upstairs. 3/ The dwelling is very congested (carpets, furniture...).	1/ The bedrooms are upstairs. 2/ There is not any toilet upstairs. 3/ The dwelling is very congested (carpets, furniture...). 4/ There is only a bathtub in the bathroom.	1/ The bedrooms are upstairs. 2/ There is not any toilet upstairs. 3/ The dwelling is very congested (carpets, furniture...). 4/ There is only a bathtub in the bathroom. 5/ The dwelling is old and poorly insulated.
Nutrition	The elderly person eats properly.	1/ The person does not eat balanced meals.	1/ The person does not eat a balanced diet. 2/ The person has not enough resources to call a meals at home service.	1/ The person does not eat a balanced diet. 2/ The person has not enough resources to call a meals at home service. 3/ The person has deficiencies linked to his/her poor diet.	1/ The person does not eat a balanced diet. 2/ The person has not enough resources to call a meals at home service. 3/ The person has deficiencies linked to his/her poor diet. 4/ The person no longer cooks.	1/ The person does not eat a balanced diet. 2/ The person has not enough resources to call a meals at home service. 3/ The person has deficiencies linked to his/her poor diet. 4/ The person no longer cooks. 5/ The person no longer respects basic hygiene rules.

Mobility	The elderly person walks alone. He/she takes the car or public transit.	1/ The person easily loses his/her balance.	1/ The person easily loses his/her balance. 2/ He/she is no longer able to drive.	1/ The person easily loses his/her balance. 2/ He/she is no longer able to drive. 3/ The dwelling is far from local shops, making it difficult to move about.	1/ The person easily loses his/her balance. 2/ He/she is no longer able to drive. 3/ The dwelling is far from local shops, making it difficult to move about. 4/ The dwelling is congested, it is difficult for an elderly person to move.	1/ The person easily loses his/her balance. 2/ He/she is no longer able to drive. 3/ The dwelling is far from local shops, making it difficult to move about. 4/ The dwelling is congested, it is difficult for an elderly person to move. 5/ The dwelling has several floors.
Social link	The elderly person has family members or close friends as caregivers.	1/ A very old family member living nearby is the only social link of the person.	1/ A very old family member is the only social link of the person. 2/ The person has no caregiver nearby.	1/ A very old family member is the only social link of the person. 2/ The person has no caregiver nearby. 3/ The person is gradually isolating himself/herself and no longer wants to reach out to others.	1/ A very old family member is the only social link of the person. 2/ The person has no caregiver nearby. 3/ His/her dwelling is located in a neighborhood undergoing renewal. 4/ Hence, the person has very little relationships with his/her neighbors.	1/ A very old family member is the only social link of the person. 2/ The person has no caregiver nearby. 3/ His/her dwelling is located in a neighborhood undergoing renewal. 4/ Hence, the person has very little relationships with his/her neighbors. 5/ The person is gradually isolating himself/herself and no longer wants to reach out to others.

<p>Administrative follow-up</p>	<p>The elderly person takes care of his/her paperwork alone.</p>	<p>1/ The person does not have access to internet. Thus he/she cannot do his/her paperwork as he/she wants.</p>	<p>1/ The person does not have access to internet. Thus he/she cannot do his/her paperwork as he/she wants. 2/ The person has difficulties to move and can no longer go to withdraw money from the bank alone.</p>	<p>1/ The person does not have access to internet. Thus he/she cannot do his/her paperwork as he/she wants. 2/ The person has difficulties to move and can no longer go to withdraw money from the bank alone. 3/ His/her niece, his/her only social link, comes once a month to go to the bank with him/her.</p>	<p>1/ The person does not have access to internet. Thus he/she cannot do his/her paperwork as he/she wants. 2/ The person has difficulties to move and can no longer go to withdraw money from the bank alone. 3/ His/her niece, his/her only social link, comes once a month to go to the bank with him/her. 4/ The person forgot to pay some bills.</p>	<p>1/ The person does not have access to internet. Thus he/she cannot do his/her paperwork as he/she wants. 2/ The person has difficulties to move and can no longer go to withdraw money from the bank alone. 3/ His/her niece, his/her only social link, comes once a month to go to the bank with him/her. 4/ The person forgot to pay some bills. 5/ The person regularly loses important mails.</p>
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II.1. PRESENTATION OF THE 1st CASE STUDIED

Description of the situation:

Mr. F lives in a residence for autonomous seniors. He lives alone and has no close family. His dwelling is small but adapted. It is located near local shops such as a bakery and a pharmacy. But it is far from a supermarket that could enable him to do his daily shopping.

His area of geographical action is reduced. Indeed, this man does not drive or use public transit. Mr. F walks with difficulty.

He has lunch every day in one of the city's club restaurants reserved for the elderly, which enables him to eat rich and balanced meals. For dinners and weekends, Mr. F followed advice from his home helper and chose a meals at home service.

A home helper comes every week to clean his accommodation and do his laundry. Little by little, he asks his home helper to help him with his reading or paperwork.

Risk assessment for keeping Mr. F at home:

Accommodation score obtained 1: the dwelling is far from a supermarket that could enable him to do his shopping.

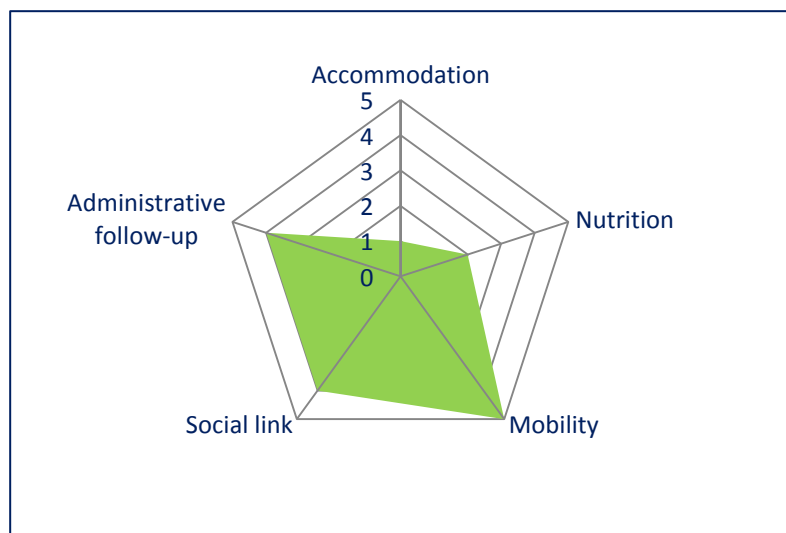
Nutrition score obtained 2: Mr. F does not eat much and he is not very attentive to hygiene rules.

Mobility score obtained 5: Mr. F does not drive; he has difficulty walking and losses of balance; and he fell several times in the street

recently. Mr. F is no longer able to go to a health professional alone.

Social link score obtained 4: Mr. F has no family; he has very little relationships with his neighbors; no one can help him in his daily life except his home helper; Mr. F is very isolated.

Administrative follow-up score obtained 4: Mr. F has trouble understanding all the mails he gets; he loses many mails; he often forgets to pay his bills.



Except for the accommodation, it is becoming increasingly difficult to keep him at home. Taking that into account, the home helper contacted the city social services so that a protection measure could be set up and organized with Mr. F's consent.

II.2. PRESENTATION OF THE 2nd CASE STUDIED

Description of the situation:

Mrs. J lives in her home, she is a widow and therefore she lives alone. She has 3 children living nearby and visiting her every day in turn. Mrs. J walks in her home and garden with a medical walker. She has a home helper to cook her meals at lunchtime. In the evening, her children help her for the dinner.

Mrs. J does not leave her home very often. She has physiotherapy sessions several times a week and a nurse comes every day for her toilette. The bathroom has been redone and a bedroom has been arranged on the ground floor. Even with all these people surrounding her, Mrs. J feels very lonely.

Risk assessment for keeping Mrs. J at home:

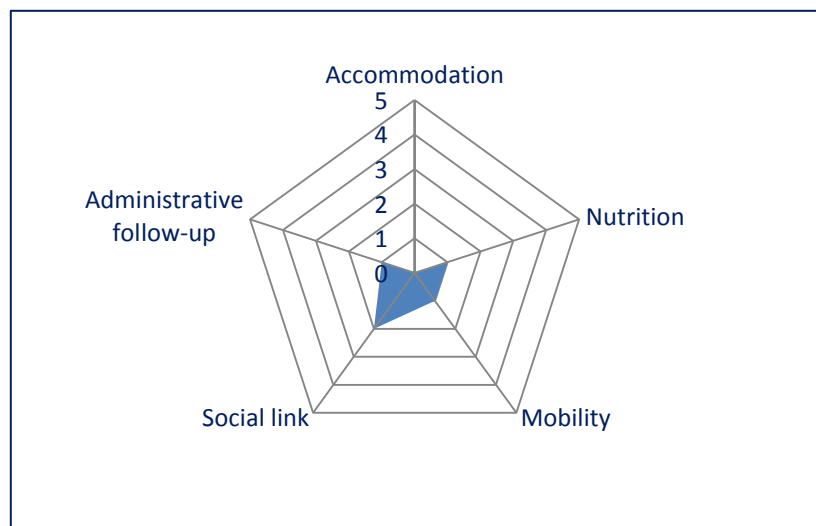
Accommodation score obtained 0: the dwelling is adapted to Mrs. J.

Nutrition score obtained 1: Mrs. J does not eat much, she loses her appetite. The nurse follows her rigorously.

Mobility score obtained 1: Mrs. J does not go out much, she moves slowly in her house with a medical walker. It is more difficult for her to go outside.

Social link score obtained 2: Mrs. J has only her family as social link, she feels very lonely.

Administrative follow-up score obtained 1: Mrs. J's relatives take care of all her paperwork, however sometimes she forgets where she keeps her papers or she throws them out by mistake.



Although Mrs. J is much less autonomous than Mr. F, Mrs. J has her entourage and various services allowing her to stay at home peacefully for a few more years. The healthcare professionals working in her home try to entertain her so that her loneliness does not grow and reach her mental health.

The work realized with the team of home helpers from the CCAS of Bègles meets the objectives that we set. Thanks to this booklet, physiotherapists can integrate situations and precise data regarding the elderly living at home.

They have a more practical vision of these elderly, their lifestyle, their environment and constraints, and their health status.

As part of the PETRHA project, physiotherapists created clinical cases for the first version of the serious game. Over time, teachers from other universities will create other clinical cases in their turn and enrich the serious game.

These clinical cases will be truly realistic as they will be based on situations described in the booklet, as close as possible to the elderly's reality.

The project methodology was designed with the idea to be reused to study other populations. The study could be extended to the elderly living in rural areas or in institutions, or even to other populations such as athletes, children...

Beyond the purpose of this booklet to enrich the clinical cases, it is also a simple tool created by and for the home helpers, who will be able to identify more easily their beneficiaries' difficulties to live at home. The use of this booklet will reinforce the home helpers' position as first protagonists in the homes of the elderly and their preventive role.

Working on this booklet also enabled the persons involved to learn more about the other professionals from the health and social sector and to highlight the home helping profession, which is generally undervalued.

The richness of this experience, both for the home helpers and for the people who accompanied them in the creation of this booklet, is a real springboard to carry on developing other projects for and with the health and social professionals operating in the homes of the elderly.

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