



IN COMMON SPORTS + FIT, FOOD  
AND FUN FOR ELDERLY!  
2021 - 2023

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# Intermediate Report

## 2021-2023



# OLYMPICS 4 ALL

IN COMMON SPORT<sup>+</sup>: Fit, Food and Fun for Elderly!  
2021-2023

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# 1. Introduction

The present report resents the data from the *In Common Sport+: Fit, Food and Fun for Elderly* considering data up to the year 2022. Therefore, the present document will contain information about the Project at the moment of evaluation, in the different countries implemented, but also, some comparisons with the previous reports conducted.

It should be considered that in 2021, our main concern was the COVID-19 confinement effect, especially the highlights made on the body composition. In fact, after all the limitations forced by the pandemic, it was registered higher values of higher fat mass as a result of the lowering of physical activity.

## 2. Methods

### 2.1. Participants

A total of 489 elderly people from six different countries participated in this evaluation, 84 participants from Portugal, 108 from Italy, 56 from Hungary, 63 from Bulgaria, 106 from Slovenia and 72 from Spain (Table 1).

**Table 1.** Distribution of the sample by country and sex.

	Portugal	Italy	Hungary	Bulgaria	Slovenia	Spain
Female (n=362)	40	73	47	61	85	56
Male (n=127)	44	35	9	2	21	16
Total	84	108	56	63	106	72



## 2.2. Assessments

The assessments conducted followed the standard protocol used in 2021. Hence, for the sample characterization, it was added a survey of the level of education, and a characterization of the level of physical exercise practiced. Furthermore, the same anthropometric and body composition analysis was conducted (height, weight, BMI, all body fat and muscle mass percentage, total bone mass, total body water, visceral fat, basal metabolic rate, waist and hip circumferences – waist-hip index), and the physical fitness tests (handgrip, 30 seconds chair stand, two minutes step test, 8 foot up and go, 6 minutes walking test, chair sit and reach and back scratch) were applied. Finally, the Participation Motivation Questionnaire (PMQ) [1] survey was also used and the six factors of analysis [2] was applied.

## 3. Results

Considering the data presented on Table 1, it is possible to observe that there is no balance in the distribution of the sample, i.e., there are much more women (65%) than men (35%) participating in these activities. This could be due to the fact that the average life expectancy to be greater in women compared to men. Such evidence confirms the results of 2021, where female (229 participants) participation was greater than male (98 participants). Comparing the percentages, we notice that by 2022 male participation raised from 30% in the year 2021 to 35% in the year 2022. When considering the total sample, we also registered an increasing number from 327 participants in 2021 to 489 in 2022.

Table 2 present the comparison of the number of participants, between 2021 and 2022. It is possible to observe that Italy and Spain were the countries with the largest sample, contrasting with and Slovenia and Bulgari, with the smallest. Conversely, in 2022, Slovenia and Italy were the ones with the largest sample and Bulgaria and Hungary with the lower number. Italy was the country that contributes the largest number of elderly people both in 2021 (n=106) and in 2022 (n=108). All the countries except Spain and Hungary had a greater number of members in 2022 than in 2021, with Slovenia being the country with the greatest difference in the sample





between the two moments. In fact, in 2021 Slovenia only had 5 persons and in 2022, 106.

**Table 2.** Distribution of the sample by country and sex in 2021 and 2022.

		Portugal	Italy	Hungary	Bulgaria	Slovenia	Spain
Female (n=362)	2021	32	76	54	59	5	67
	2022	40	73	47	61	85	56
Male (n=127)	2021	38	30	9	2	0	20
	2022	44	35	9	2	21	16
Total	2021	70	106	63	61	5	87
	2022	84	108	56	63	106	72

Table 3 expose the academic level of the sample. Hungary presents evident differences comparatively to the other countries, since it showed a high percentage of participants with a higher educational level (Master/Doctorate). Spain, Slovenia, Italy and Bulgaria presented a percentage of participants who do not have a university educational level.

**Table 3.** Distribution of the sample by country and educational level.

	Educational Level		
	No University	Degree/Bachelor	Master/PhD
Portugal	17.9%	20.3%	5.6%
Italy	29.1%	26.8%	5.6%
Hungary	10.6%	25.2%	63.9%
Bulgaria	16.7%	12.2%	16.7%
Slovenia	14.4%	13.8%	8.3%
Spain	11.4%	1.6%	0.0%

On the other hand, Italy and Portugal have a higher percentage of participants who have a bachelor's degree. Spain is the only country that does not present any percentage at the high educational level (Master/Doctorate).



Table 4 shows how many days a week the participants practice physical activity by country.

**Table 4.** Distribution of the sample by country and days /weeks of physical exercise practice.

	Days/week that practice physical exercise						
	1	2	3	4	5	6	7
<b>Portugal</b>	2.5%	25.4%	19.5%	17.8%	18.6%	4.2%	11.9%
<b>Italy</b>	6.0%	39.1%	26.6%	15.2%	8.7%	1.1%	3.3%
<b>Hungary</b>	9.7%	31.9%	30.1%	17.7%	5.3%	3.5%	1.8%
<b>Bulgaria</b>	10.2%	57.6%	13.6%	5.1%	-	-	13.6%
<b>Slovenia</b>	8.3%	21.3%	28.7%	8.3%	14.8%	4.6%	13.9%
<b>Spain</b>	-	18.2%	5.2%	3.9%	18.2%	13.0%	41.6%

The average of practice registered was between 2 to 4 days a week. Spain was the country that registered a greater variety of sports practiced per week, with 41.6% of their members practicing 7 days a week. The countries performing the lower quantity of physical activity per week were Bulgaria, Hungary and Italy (2 days a week).

Table 5 presents the anthropometric and body composition characteristics of the sample by moments of evaluation. Similar anthropometric results were observed when comparing 2021 with 2022.

However, the values of weight (kg) slight increased from 72 kg in 2021 to 73.2 kg in 2022. The same evidence was found with the basal metabolic rate (kcal) with an increase from 2021 (1278.9) to 2022 (1372.1). Nevertheless, the BMI showed similar values in 2021 (28.0) and 2022 (28.1), but the percentage of fat decreases.



**Table 5.** Anthropometric and body composition characteristics of the sample by moments of evaluation.

	2021				2022			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Height (cm)	160.4	8.4	139.5	186.0	161.4	8.5	139.0	190.0
Weight (kg)	72.0	13.8	39.3	171.0	73.2	12.8	38.6	130.8
BMI (kg/m <sup>2</sup> )	28.0	4.5	14.9	47.3	28.1	4.3	17.4	47.3
Fat (%)	34.1	8.0	8.2	68.7	33.0	8.5	8.1	63.4
Fat Mass (kg)	24.4	7.0	11.9	54.3	22.7	9.8	5.9	78.3
Muscle Mass (kg)	43.0	8.6	16.8	92.2	46.6	8.6	9.9	85.2
Total Body Water (%)	47.3	5.6	23.3	65.8	48.0	6.5	25.4	68.1
Bone Mass (kg)	2.4	0.4	1.6	3.7	2.5	0.4	1.6	4.4
Physical Assessment	3.5	1.6	1.0	9.0	4.0	1.7	1.0	9.0
Basal Metabolic Rate (kcal)	1278.9	322.7	11.4	2229.0	1372.1	311.3	700.0	2720.0
Metabolic Age	62.6	10.9	45.0	90.0	61.9	10.5	43.0	90.0
Visceral Fat Rating	11.2	3.5	2.0	22.0	11.0	3.4	1.5	23.0
Waist (cm)	95.6	14.2	50.0	182.0	93.8	12.4	7.0	130.0
Hip (cm)	107.1	32.5	41.0	701.0	104.9	11.0	58.0	152.0
Waist-hip index	0.91	0.13	0.12	2.13	0.90	0.10	0.07	1.59

Considering the Metabolic Age, a small decrease was perceived, achieving 62.6 years in 2021 and 61.9 years in 2022. In line with those results, the waist-hip index decreased from 0.01 between years. But it was in muscle mass that the increases were more visible, with an increase from 43.0 to 46.6. In the same vein, the total quantity of water in the body raised 0.7 between years. Finally, the physical assessment perception also showed changes from 3.5 in 2021 to 4.0 in 2022.

Table 6 shows the anthropometric data obtained in 2021 and in 2022 by country. All the countries showed similar anthropometric characteristics between the two moments in which the evaluations were carried out. There are no significant differences between the parameters evaluated between moments, but a slight increase was observed from 2021 to 2022 in most of the parameters evaluated.



Table 6. Anthropometric characteristics of the sample by country and moments.

	Spain	Portugal	Slovenia	Bulgaria	Hungary	Italy		
2021	Height (cm)	154.9 (6.7)	163.4 (8.8)	167.6 (7.7)	158.9 (7.2)	162.4 (7.0)	162.3 (8.9)	
	Weight (kg)	71.7 (14.3)	72.9 (11.4)	76.0 (5.7)	75.6 (12.5)	71.9 (17.9)	69.4 (12.6)	
	BMI (kg/m <sup>2</sup> )	29.4 (4.1)	27.3 (3.4)	27.1 (2.5)	30.6 (5.8)	26.9 (4.0)	26.4 (4.0)	
	Fat %	34.1 (7.5)	31.2 (7.7)	37.3 (5.1)	40.2 (7.0)	36.8 (5.9)	33.3 (30.0)	
	Fat Mass (kg)	24.1 (7.0)	.	28.5 (5.4)	-	-	-	
	Muscle Mass (kg)	36.6 (5.0)	47.6 (8.6)	45.1 (3.7)	42.8 (4.1)	41.6 (8.0)	46.1 (9.8)	
	Total Body Water (%)	46.3 (5.4)	49.6 (5.2)	45.8 (3.8)	44.3 (4.2)	44.1 (4.9)	50.3 (5.0)	
	Bone Mass (kg)	2.4 (0.4)	2.5 (0.4)	2.4 (0.2)	2.3 (0.2)	2.3 (0.4)	2.4 (0.4)	
	Physical Assessment	-	3.3 (1.4)	3.2 (1.6)	3.3 (1.4)	2.8 (1.4)	4.3 (1.6)	
	Basal Metabolic Rate (kcal)	867.8 (155.1)	1431.4 (346.0)	1425.0 (100.8)	1391.2 (140.3)	1325.0 (218.8)	1418.3 (252.1)	
	Metabolic Age	62.2 (8.5)	63.6 (11.3)	59.8 (13.5)	69.6 (11.4)	64.7 (10.6)	56.9 (9.3)	
	Visceral Fat Rating	11.7 (3.3)	12.8 (3.7)	9.4 (2.0)	11.3 (3.0)	10.6 (3.3)	10.2 (3.5)	
	Waist (cm)	98.7 (17.3)	94.1 (10.4)	97.4 (10.1)	99.0 (13.6)	98.8 (11.9)	89.8 (13.3)	
	Hip (cm)	104.3 (17.0)	102.0 (6.6)	114.4 (6.3)	114.5 (11.6)	109.9 (10.2)	106.4 (58.8)	
	Waist-hip index	0.96 (0.20)	0.92 (0.07)	0.85 (0.07)	0.86 (0.08)	0.90 (0.08)	0.88 (0.12)	
	2022	Height	154.8 (6.2)	163.3 (9.2)	164.7 (7.9)	158.9 (7.1)	162.2 (7.1)	162.5 (8.7)
		Weight (kg)	69.0 (9.5)	72.6 (11.8)	78.5 (14.8)	75.3 (12.5)	73.8 (11.4)	69.5 (12.2)
BMI (kg/m <sup>2</sup> )		29.1 (3.2)	27.4 (3.8)	28.8 (4.6)	30.1 (5.3)	27.9 (3.6)	26.2 (4.0)	
Fat %		32.4 (6.3)	30.0 (7.8)	31.9 (9.0)	38.5 (6.4)	38.6 (6.9)	29.8 (8.8)	
Fat Mass (kg)		22.5 (5.9)	.	20.5 (12.8)	.	.	78.3 (0.00)	
Muscle Mass (kg)		46.6 (7.0)	47.7 (10.5)	50.3 (9.6)	43.8 (4.4)	42.4 (6.6)	46.1 (8.6)	
Total Body Water (%)		46.3 (1.6)	50.4 (5.4)	49.8 (6.6)	46.0 (3.8)	40.7 (7.8)	51.0 (6.0)	
Bone Mass (kg)		2.4 (0.3)	2.6 (0.5)	2.7 (0.5)	2.4 (0.2)	2.4 (0.4)	2.5 (0.4)	
Physical Assessment		-	4.0 (1.6)	4.4 (1.8)	3.6 (1.4)	2.9 (1.3)	4.5 (1.8)	
Basal Metabolic Rate (kcal)		895.8 (134.7)	1472.3 (267.0)	1564.2 (290.4)	1422.6 (139.7)	1375.0 (185.3)	1415.5 (235.2)	

In 2021, Spain was the country with the lowest height (154.9 cm) and lowest weight (71.7 kg) in the entire sample, as well as the lowest Basal Metabolic Rate (867.8 kcal). In opposition, Slovenia was the country with the highest height among the participants (167.8 cm) and the greatest weight (76.0 kg), and Portugal was the country with the highest Basal Metabolic Rate (1431.5 kcal). Regarding the Metabolic Age parameter, all countries present similar data, with Italy showing the lowest Metabolic Age (56.9) and Bulgaria presenting the highest Metabolic Age (69.6).



In terms of BMI, Bulgaria had the highest BMI (30.6 kg/m<sup>2</sup>) and Italy the lowest (26.4 kg/m<sup>2</sup>). Regarding the waist-hip index, Slovenia was the country with the lowest index (0.85) and Spain the one with the highest index (0.96). Regarding physical evaluation, an increase from 2021 to 2022 was perceived in all countries.

Regarding the values of 2022, referring to height and weight, it was observed that Spain continues to be the country with the lowest results in these two parameters (154.8 cm and 69 kg) and Slovenia the one with the highest results (164.7 cm and 78.5 kg). Regarding BMI, Bulgaria was the one with the highest result (30.1 kg/m<sup>2</sup>) and Italy the one with the lowest result (26.2 kg/m<sup>2</sup>). Regarding the Basal Metabolic Rate, Slovenia was the country with the highest Basal Metabolic Rate (1564.2 kcal) and Spain the one with the lowest (895.8 kcal). Considering the Metabolic Age parameter, Bulgaria and Italy continued to be the countries with the highest and lowest results (67.3 and 57.3). Finally, regarding the waist-hip index, Slovenia, which in 2021 had the lowest index, was in 2022 the country with the highest index (0.91) and Bulgaria the lowest index (0.87).

When comparing the physical fitness between years, it could be observed some differences (Table 7).

**Table 7.** General Physical Fitness test results by years.

	2021				2022			
	Mean	SD	Min	Max	Mean	SD	Min	Max
Handgrip 1 (kg)	31.6	16.1	9.6	110.0	29.2	9.7	11.0	64.0
Handgrip 2 (kg)	31.6	16.0	9.7	105.0	28.7	10.0	11.0	68.0
Chair Stand Test (rep)	16.3	6.0	5.0	95.0	17.1	4.4	8.0	35.0
Arm Curl (n)	20.3	5.4	5.0	50.0	21.4	5.3	7.0	43.0
Two Minute step 1' (n)	57.5	25.2	16.0	151.0	63.6	26.9	12.0	145.0
Two Minute step 2' (n)	109.9	48.4	11.0	299.0	123.3	52.9	26.0	286.0
Chair sit and reach right (cm)	2.8	10.2	-32.0	30.0	3.3	11.1	-32.0	50.0
Chair sit and reach left (cm)	-1.5	10.1	-29.0	20.0	-3.5	8.6	-33.0	13.0
Back scratch right (cm)	-6.2	15.3	-63.0	37.0	-4.6	13.5	-100.0	50.0
Back scratch left (cm)	-23.7	15.8	-74.0	8.0	-18.6	16.5	-100.0	20.0
Eight-Foot up & go (s)	5.3	1.1	2.3	12.5	5.1	1.1	2.5	9.6
Six Minute Walk (m)	534.4	93.3	150.0	819.0	548.3	108.4	160.0	945.0





For instance, improvements were registered in all physical fitness parameters, except in the flexibility of the lower body left, evaluated through the chair sit and reach (-1.5/-3.5), and the strength of the upper body was evaluated through the Handgrip (31.6-29.2). Both parameters decrease. The results of the Chair Stand test (16.3-17.1), Two-minute Step 1` (57.5-63.3), Two-minute step 2` (109.9-123.3), Six-minute walk (534.4-548.3) and Back scratch (-23.7/-18.6) could be highlighted, with a significant increase from 2021 to 2022.

Table 8 shows the results obtained after performing the different physical fitness tests in 2021 and 2022 in each country. As observed, Spain, Slovenia and Portugal were the countries where most of the results of the tests carried out have worsened from 2021 to 2022, with Spain and Slovenia being the ones that contribute the most to the negative results from one moment to the other. However, the results of Bulgaria, Hungary and Italy had improved between years, with those of Italy being the ones who have improved the most compared to the rest of the countries, since improvements were registered in all their tests except in the strength test in the upper part of the body (curl of arms). It can also be seen that in 2021 the country with the highest test scores was Portugal, maintaining in 2022 as Hungary and Italy, while Bulgaria was the country with the lowest test scores at both moments. Nevertheless, it should be noted that Bulgaria had a significant increase in those parameters that increased the results.





**Table 8.** Physical condition characteristics of the sample by country and moments.

	Spain	Portugal	Slovenia	Bulgaria	Hungary	Italy		
2021	Handgrip 1 (kg)	31.0 (14.0)	49.7 (22.4)	22.4 (6.4)	18.4 (5.0)	27.2 (10.4)	30.9 (8.6)	
	Handgrip 2 (kg)	31.4 (13.1)	49.5 (22.0)	18.4 (6.5)	17.5 (4.9)	27.8 (10.6)	31.3 (8.7)	
	Chair Stand Test (rep)	14.6 (3.9)	17.6 (5.0)	26.0 (2.3)	14.7 (3.2)	14.8 (3.4)	18.1 (8.9)	
	Arm_Curl	17.7 (3.5)	21.0 (4.7)	30.8 (6.3)	23.6 (5.6)	18.7 (3.6)	20.6 (5.9)	
	Two Minute step 1'	38.6 (8.2)	49.8 (11.2)	53.8 (8.4)	72.0 (17.9)	100.2 (16.4)	44.4 (12.2)	
	Two Minute step 2'	76.0 (17.9)	97.8 (20.7)	106.0 (12.7)	128.0 (40.3)	190.7 (41.9)	86.7 (20.8)	
	Chair sit-and-reach (cm)	-1.0 (10.0)	1.6 (13.1)	14.8 (7.7)	3.2 (6.5)	5.4 (10.9)	4.6 (9.0)	
	Chair_sit_and_reach_left	-1.5 (10.1)	.	.	.	.	.	
	Back scratch (cm)	-19.3 (16.1)	-8.5 (13.3)	0.6 (6.9)	8.8 (7.3)	-4.0 (8.2)	-4.0 (13.1)	
	Back_scratch_Left_cm	-23.7 (15.8)	.	.	.	.	.	
	Eight-Foot up & go (s)	5.8 (1.0)	5.0 (1.3)	4.5 (0.2)	5.4 (1.3)	5.3 (1.1)	5.0 (0.8)	
	Six Minute Walk (m)	524.8 (52.7)	614.3 (70.5)	642.2 (63.7)	475.8 (74.7)	550.7 (100.7)	513.7 (97.9)	
	2022	Handgrip 1 (kg)	26.7 (5.8)	35.0 (10.1)	29.9 (10.1)	20.6 (4.8)	27.8 (8.2)	32.7 (9.8)
		Handgrip 2 (kg)	26.7 (6.0)	35.7 (9.8)	28.6 (11.2)	19.5 (4.6)	27.1 (8.1)	32.4 (9.3)
Chair Stand Test (rep)		14.6 (3.7)	16.7 (4.5)	17.9 (3.8)	15.4 (3.8)	17.0 (3.8)	19.3 (4.7)	
Arm_Curl		18.9 (4.3)	19.9 (4.0)	21.9 (6.4)	26.5 (5.6)	21.7 (3.7)	20.3 (3.7)	
Two Minute step 1'		37.4 (10.2)	90.6 (16.9)	46.3 (9.8)	79.6 (16.9)	105.3 (15.5)	50.8 (10.7)	
Two Minute step 2'		73.0 (17.4)	180.2 (33.4)	90.7 (17.4)	141.3 (32.4)	208.0 (36.9)	99.5 (21.6)	
Chair sit-and-reach (cm)		-3.2 (7.9)	2.0 (13.8)	4.5 (10.7)	3.7 (8.0)	7.6 (9.5)	4.7 (12.4)	
Chair_sit_and_reach_left		-3.5 (8.6)	.	.	.	.	.	
Back scratch (cm)		-19.7 (16.3)	-6.6 (9.0)	-4.0 (8.9)	8.3 (7.2)	-2.2 (8.9)	-1.9 (12.1)	
Back_scratch_Left_cm		-18.6 (16.5)	.	.	.	.	.	
Eight-Foot up & go (s)		6.0 (1.0)	4.7 (0.9)	5.0 (1.1)	5.6 (1.2)	4.8 (0.6)	4.6 (0.8)	
Six Minute Walk (m)		567.4 (98.7)	662.0 (102.4)	551.4 (110.6)	472.0 (76.0)	520.6 (79.8)	522.3 (86.8)	





Table 9 shows the results obtained on the evaluation of the quality of life of the participants.

**Table 9.** Perception of quality of life in 2021 and 2022.

		2021	2022
Mobility	I have no problems in walking about	79.1%	71.8%
	I have slight problems in walking about	15.0%	20.2%
	I have moderate problems in walking about	5.6%	7.0%
	I have severe problems in walking about	0.3%	1.0%
	I am unable to walk about	-	-
Self-Care	I have no problems washing or dressing myself	94.0%	94.8%
	I have slight problems washing or dressing myself	5.0%	4.1%
	I have moderate problems washing or dressing myself	0.9%	0.9%
	I have severe problems washing or dressing myself	0.0%	0.2%
	I am unable to wash or dress myself	0.0%	0.0%
Usual activities	I have no problems doing my usual activities	90.0%	87.1%
	I have slight problems doing my usual activities	7.2%	9.9%
	I have moderate problems doing my usual activities	2.8%	2.4%
	I have severe problems doing my usual activities	0.0%	0.6%
	I am unable to do my usual activities	0.0%	0.0%
Pain/ Discomfort	I have no pain or discomfort	50.2%	44.4%
	I have slight pain or discomfort	34.1%	40.7%
	I have moderate pain or discomfort	13.2%	12.1%
	I have severe pain or discomfort	2.5%	2.8%
	I have extreme pain or discomfort	0.0%	0.0%
Anxiety/ Depression	I am not anxious or depressed	69.6%	70.7%
	I am slightly anxious or depressed	23.7%	23.5%
	I am moderately anxious or depressed	5.1%	5.8%
	I am severely anxious or depressed	1.6%	0.0%
	I am extremely anxious or depressed	0.0%	0.0%
Health Today	0	0.3%	0.0%
	5	0.3%	0.0%
	30	0.0%	0.2%
	40	0.9%	0.9%
	45	0.6%	0.0%
	50	5.0%	5.4%
	51	0.0%	0.2%
	55	1.3%	0.6%
	60	5.0%	6.0%
	65	1.9%	2.2%
	67	0.3%	0.0%
	68	0.3%	0.0%
	70	13.9%	11.6%
75	4.4%	4.3%	
78	0.0%	0.2%	



80	19.6%	25.6%
82	0.0%	0.2%
85	6.6%	5.6%
87	0.3%	0.2%
90	21.5%	21.3%
92	0.0%	0.2%
95	6.9%	5.8%
97	0.6%	0.0%
98	0.3%	0.4%
99	0.6%	0.2%
100	9.1%	8.6%

Considering the final scores at both times, the health status of the participants seemed to present no problems or to present slight problems in all dimensions.

No reports were found at level 5 (extreme problems) at any moment and in any dimension. Regarding the dimension of perception of the health nowadays, it was observed that most of the participants remain between 80-90 health.

Table 10 shows the results obtained on the evaluation of the quality of life by country in 2021 and 2022. Considering the final scores at both moments and countries, the health status of the participants does not seem to present problems or present slight problems in all dimensions. Although it should be noted that in the dimensions of mobility, pain/discomfort and anxiety/depression, a very small percentage was observed that presents moderate problems for the countries of Hungary (mobility), Spain (pain/discomfort and anxiety/depression), Bulgaria (mobility) and Italy (pain/discomfort). No reports were found at level 5 (extreme problems) at any time and in any dimension and country. Regarding the dimension of today's health, it is observed that most of the participants remained between 70 and 95, highlighting Slovenia where 40% consider that their health is 100%.



Table 10. Perception of quality of life by country in 2021 and 2022.

		Spain		Portugal		Slovenia		Bulgaria		Hungary		Italy	
		2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022
Mobility	I have no problems in walking about	83.9%	75.0%	97.3%	84.5%	80.0%	62.2%	63.9%	45.6%	73.0%	78.6%	81.1%	79.6%
	I have slight problems in walking about	13.8%	15.3%	2.8%	14.3%	20.0%	22.6%	21.3%	38.1%	22.2%	16.1%	12.3%	17.6%
	I have moderate problems in walking about	2.3%	6.9%	0.0%	1.2%	0.0%	12.3%	14.8%	14.3%	4.8%	5.4%	5.7%	2.8%
	I have severe problems in walking about	0.0%	2.8%	0.0%	0.0%	0.0%	2.8%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
Self-Care	I have no problems washing or dressing myself	93.1%	93.1%	90.0%	97.6%	80.0%	95.3%	86.9%	92.1%	98.4%	98.2%	97.2%	94.4%
	I have slight problems washing or dressing myself	5.7%	4.2%	10.0%	2.4%	20.0%	3.8%	11.5%	6.3%	1.6%	1.8%	1.9%	4.6%
	I have moderate problems washing or dressing myself	1.1%	2.8%	0.0%	0.0%	0.0%	0.0%	1.6%	1.6%	0.0%	0.0%	0.9%	0.9%
	I have severe problems washing or dressing myself	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Usual activities	I have no problems doing my usual activities	88.2%	88.9%	100.0%	93.7%	100.0%	74.8%	83.6%	88.7%	87.3%	87.5%	95.3%	92.6%
	I have slight problems doing my usual activities	6.6%	9.7%	0.0%	4.8%	0.0%	18.4%	9.8%	8.1%	11.1%	10.7%	4.7%	5.6%
	I have moderate problems doing my usual activities	5.3%	1.4%	0.0%	0.0%	0.0%	4.9%	6.6%	3.2%	1.6%	1.8%	0.0%	1.9%
	I have severe problems doing my usual activities	0.0%	0.0%	0.0%	1.6%	0.0%	1.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	I am unable to do my usual activities	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Pain/Discomfort	I have no pain or discomfort	40.5%	40.3%	71.4%	65.1%	60.0%	35.9%	50.8%	37.1%	58.7%	60.7%	49.1%	38.9%
	I have slight pain or discomfort	37.8%	44.4%	28.6%	30.2%	40.0%	37.9%	32.8%	45.2%	33.3%	33.9%	33.0%	48.1%
	I have moderate pain or discomfort	14.9%	9.7%	0.0%	4.8%	0.0%	22.3%	16.4%	16.1%	6.3%	3.6%	16.0%	10.2%
	I have severe pain or discomfort	6.8%	5.6%	0.0%	0.0%	0.0%	3.9%	0.0%	1.6%	1.6%	1.8%	1.9%	2.8%
	I have extreme pain or discomfort	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Anxiety/Depression	I am not anxious or depressed	64.9%	62.5%	85.7%	58.7%	60.0%	69.9%	73.8%	74.2%	81.0%	85.7%	62.9%	74.1%
	I am slightly anxious or depressed	23.0%	29.2%	0.0%	34.9%	40.0%	22.3%	21.3%	22.6%	17.5%	12.5%	30.5%	20.4%
	I am moderately anxious or depressed	8.1%	8.3%	14.3%	6.3%	0.0%	7.8%	3.3%	3.2%	1.6%	1.8%	5.7%	5.6%
	I am severely anxious or depressed	4.1%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	1.0%	0.0%
	I am extremely anxious or depressed	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%





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Health Today	0	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
	5	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	30	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
	40	0.0%	2.8%	0.0%	0.0%	0.0%	1.9%	3.3%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%
	45	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	3.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	50	8.1%	9.7%	0.0%	4.8%	0.0%	6.8%	6.6%	9.7%	0.0%	0.0%	0.0%	5.7%	1.9%
	51	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%
	55	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.9%	4.8%	0.0%	0.0%	0.0%	0.9%	0.0%
	60	2.7%	4.2%	0.0%	9.5%	0.0%	3.9%	11.5%	11.3%	3.2%	1.8%	4.7%	6.5%	
	65	2.7%	0.0%	0.0%	0.0%	0.0%	1.0%	3.3%	9.7%	1.6%	1.8%	0.9%	1.9%	
	67	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	
	68	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%	
	70	13.5%	18.1%	0.0%	9.5%	20.0%	7.8%	14.8%	17.7%	6.3%	8.9%	18.9%	10.2%	
	75	0.0%	0.0%	14.3%	11.1%	0.0%	4.9%	11.5%	8.1%	3.2%	0.0%	2.8%	2.8%	
	78	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	
	80	28.4%	33.3%	14.3%	25.4%	0.0%	20.4%	8.2%	16.1%	17.5%	19.6%	22.6%	34.3%	
	82	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	
	85	2.7%	0.0%	14.3%	0.0%	20.0%	2.9%	13.1%	11.3%	3.2%	14.3%	6.6%	7.4%	
	87	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.8%	0.9%	0.0%	
	90	16.2%	19.4%	28.6%	25.4%	20.0%	23.3%	14.8%	9.7%	34.9%	35.7%	20.8%	17.6%	
92	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%		
95	5.4%	0.0%	0.0%	6.3%	0.0%	5.8%	4.9%	1.6%	12.7%	12.5%	6.6%	8.3%		
97	0.0%	0.0%	14.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%		
98	0.0%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	1.6%	0.0%	0.0%	0.9%		
99	1.4%	0.0%	0.0%	0.0%	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.9%	0.0%		
100	17.6%	12.5%	14.3%	6.3%	40.0%	19.4%	0.0%	0.0%	15.9%	3.6%	2.8%	4.6%		





## 4. Conclusions

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From 2021 to 2022 more 162 participants were included in the present Project. Considering the body composition, although the mean weight increased from 2021 to 2022, the percentage of fat registered decreased. It suggests that participants increased their muscle mass (which is heavier) and decrease fat mass, leading to a healthy increase of the total weight. In fact, the slightly increased on muscle mass, total body water and bone mass corroborate that observation. Those results showed the benefits of this Project, as it motivates elderly people to be healthier.

It was also observed improvements in the fitness condition though the physical fitness tests results. Indeed, only in strength measured by the handgrip and the flexibility on the left side did not registered improvements. All other capacities, as the strength endurance (through the chair stand test, arm curl, two-minute step test), flexibility (through the chair sit and reach with the right leg, back scratch left and right), agility (through the eight-foot up & go test) and cardiorespiratory capacity (though the six-minute walk test).

The quality of life seemed to be in line with the fitness results, since the majority of the participants position themselves between 70 to 95, with 40% of participants of Slovenia considering that their health is 100%.

## 5. References

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