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**“EDUCATION - THE CHALLENGE OF THE LATER  
YEARS”**

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**INTELLECTUAL OUTPUT 2**

**MATERIALS FOR TEACHERS**

**Sinergia società Cooperativa Sociale**

**ITALY**

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## Introduction to the topic

If it is true that ***we are what we eat***, we are now wasted food and unbalanced, unhealthy or too elaborate.

To give the **right value to food**, the answer is to **re-educate ourselves to food**. Only with the right approach and the right information, in fact, we eat well and sustainably.

Today the greatest value for our food system could have a proper nutritional education, made directly in the schools. Nutrition education should be included in school curricula of all levels ... And the other part of the population?

Two main topics are crucial for a correct information about food:

1. **Health and nutrition**
2. **Food waste**
3. **Well being, physical fitness.**

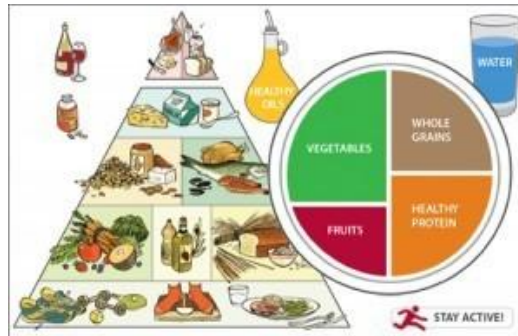
The aim of this document is to provide teachers, operators and trainers for seniors with correct information and methodologies to inform over 65 citizens about these 2 topics.

The elderly people eat less and badly. More than 400 daily calories are missing, and increases the risk of hospitalization. The causes? Primarily the economic crisis.

Eat less seems to be the secret to stay fit, especially by seniors. A system of narrow-caloric not only diminishes the cardiovascular risks linked to being overweight, but also reduces those related to the development of tumors. But how less do they have to eat?

The extensive study "Nutraage" realized by National Research Council (CNR) in Padua shows that Italians over 65 eat too little and mostly wrongly.

## 1. Health and nutrition



**FOOD ERRORS** - Among the most common mistakes is definitely the low propensity to consume fruits and vegetables, especially about assuming calcium and vitamin D.

Our elders arrive just 50% of the recommended amount of calcium, while other countries reach 90%. With risks for health.

In a country like Italy, considered the home of pasta, the elderly people consume very little: with 250 grams per day for men and 220 for women, is preceded only by Greece, while at the top include Spain and Sweden. And what portion? In our country, about one million people over 65 do not eat enough, and each day brings 400 calories less than the minimum recommended amount.

Only positive is that regarding fat consumption: we are the country with the lowest intake of lipids and can also boast a low intake of cholesterol.

Fatty foods are preferred by Spanish and Dutch elderly citizens.

**CAUSES** - According to experts opinion, the main reason of malnutrition in the elderly is economic. The crisis has reduced considerably the consumption of food. According to a survey sponsored by the Ministry of Health, nearly 70% of older people find hard to get to the end of the month and so many people waives to buy meat and fish, certainly more expensive but crucial for a proper, healthy diet.

**RECOVERY HOUSES** - According to data presented in the project of the European Society for Clinical Nutrition and metabolism (Espen), in residential centers for elderly malnutrition ranges between 30 and 60 per cent, especially for women and older patients.

## 2. Fight food waste



The issue of global food losses and waste (FLW) has recently received much attention and has been given high visibility. According to FAO, almost one-third of food produced for human consumption – approximately 1.3 billion tonnes per year – is either lost or wasted globally. EU Commission estimates annual food waste generation in the EU27 at approximately 89Mt, or 179kg per capita. Food is wasted in every stage of the food chain – from farms to tables - by producers, workers, sellers, restaurants and consumers. This fact represents an evident contradiction of our world: on one hand there are still the hungry (approximately 870 million undernourished people in 2010-2012) and on the other hand there are those who die from health ailments linked to poor nutrition and too much food (approximately 2.8 million deaths from diseases related to obesity or being overweight). The reduction of food losses and waste is now presented by every Institution as essential to improve food security, to reduce the environmental footprint of food systems and to fight against food diseases.

The issue of food and food waste is highly regarded not only in Europe but also in all the world: there are several initiatives that the different States and International Organizations put in place to raise awareness to a more correct use of food resources. To cite a few examples, specific guidelines have been prepared by EU Commission to address food waste. "Guidelines on the preparation of food waste prevention programmes" are aimed primarily at national policymakers developing National Waste Prevention Programmes as required by the 2008 Waste Framework Directive. Another important initiative is The Bologna Charter against Food waste. 2015 has been somehow dedicated to food thanks to EXPO, that will take place in Milan from May to October.

Many institutions and stakeholders took this opportunity to start communication campaigns and educational projects dealing with nutrition. For example WWF launched One Planet Food, aimed at raising awareness especially youth in an interactive way.

Often food education is promoted at scholastic level or in education paths for youth, while little attention is paid to the food habits of adults. This means that quite often new generations are more sensitive and participatory than adults, who are in charge of family consumption. This document aims to create an innovative training module addressing a specific target, socially more inclined to waste food resources and unhealthy diet (people over 60 years, generally not involved in awareness and sensitization activities on this topic).

This guide identifies the elements of food and waste education interventions effective to train elderly students.

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### 3. Well being, physical fitness



Being physically active plays an essential role in ensuring health and well-being, and there is a large body of research investigating the benefits of exercise. Physical activity benefits many parts of the body – the heart, skeletal muscles, bones, blood (for example, cholesterol levels), the immune system and the nervous system<sup>1</sup> – and can reduce many of the risk factors for NCDs.

- To promote and maintain good health, adults aged 18–65 years should maintain a physically active lifestyle.
- They should perform moderate-intensity aerobic (endurance) physical activity for a minimum of 30 minutes on five days each week or vigorous-intensity aerobic activity for a minimum of 20 minutes on three days each week.
- Combinations of moderate- and vigorous-intensity activity can be performed to meet this recommendation. For example, a person can meet the recommendation by walking briskly for 30 minutes twice during the week and then jogging for 20 minutes on two other days.
- These moderate- or vigorous intensity activities are in addition to the light intensity activities frequently performed during daily life (e.g. self care, washing dishes, using light tools at a desk) or activities of very short duration (e.g. taking out trash, walking to parking lot at store or office).
- Moderate-intensity aerobic activity, which is generally equivalent to a brisk walk and noticeably accelerates the heart rate, can be accumulated toward the 30-minutes minimum by performing bouts each lasting 10 or more minutes.
- Vigorous-intensity activity is exemplified by jogging, and causes rapid breathing and a substantial increase in heart rate.
- In addition, at least twice each week adults will benefit by performing activities using the major muscles of the body that maintain or increase muscular strength and endurance.
- Because of the dose-response relation between physical activity and health, persons who wish to further improve their personal fitness, reduce their risk for chronic diseases and disabilities, or prevent unhealthy weight gain will likely benefit by exceeding the minimum recommended amount.

For older adults (over 65s, or those aged 50–64 with chronic conditions such as arthritis), the recommendation is the same, with balance exercises also recommended. It is also the case that goals below this threshold may be necessary for older adults who have physical impairments or functional limitations.

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## ***Examples of exercises that the teachers could develop for their elderly students***

### **Exercise 1: Health and nutrition**

#### **Nutrition Education Programme**

Senior classes are comprised of seven nutrition lessons. Each lesson includes hands-on learning activities to help participants apply what they learn in class to their daily life. Participants complete the following lesson: Whole-Grain Foods Tasting Activity

Supplies needed:

- Assorted selection of wholegrain breads and cereals
- Small plates and cups of water, one per participant
- Napkins

Preparation for the Activity

- Use proper food preparation and food safety practices.
- Cut bread samples into bite-sized pieces for tasting.
- Portion breads and cereals onto plates for tasting.
- Allow opportunity for participants to wash their hands.

Activity Direction:

- SAY: We will do a short tasting activity. The goal is to help each of us explore healthier food choices. Today we will taste a variety of whole-grain foods.
- DO: Give each participant a small plate with bite-size pieces of several whole-grain foods.
- SAY: The focus of the tasting activity is to learn to select and enjoy healthier foods, such as whole wheat bagels, English muffins, breads, and cereals. As you taste each food sample, explore the flavor and texture.
- DO: Briefly discuss how whole-grains can be a healthy addition to our diets.
- SAY: Whole-grain foods provide fiber and other valuable nutrients. The fiber in whole-grains can reduce our risk for heart disease, diabetes, some types of cancer, and can even improve our digestive health. Eating whole-grains may also help us keep from overeating and gaining weight. And whole-grain foods taste great!

1. Food Resource Management
2. MyPlate Basics
3. MyPlate Food Groups
4. Food Safety
5. Watch Your Fats, Sugars, and Salt
6. Breakfast.

The concepts of Food Safety, Food Preparation, Physical Activity and Goal Setting are tied into every lesson. When participants complete the seven lessons, they receive a certificate and a NEP cookbook. Classes are taught individually, in small groups at agency or community sites, at home through mail lessons, Internet or phone visits.

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## Exercise 2: Food waste

### Your Action Plan

*Simulation of three scenarios of daily life (1. At the Store – 2. At Home – 3. During Mealtime), showing good practice virtuous to fight food waste:*

#### *At the Store*

1. Shop smart. Plan meals, use grocery lists, and avoid impulse buys. This way, you're less likely to buy things you don't need and that you're unlikely to actually consume. Buy items only when you have a plan for using them, and wait until perishables are all used up before buying more. Check out these apps for extra-easy meal planning.
2. Buy exactly what you need. For example, if a recipe calls for two carrots, don't buy a whole bag. Instead, buy loose produce so you can purchase the exact number you'll use. Likewise, try buying grains, nuts, and spices from bulk bins so you can measure out exactly what you need and don't over-buy (Just note that there's a difference between buying in bulk and buying from bulk bins; the first one can actually create more waste if we buy more than we can realistically use). Bonus: This tip will save some cash, to boot.
3. Be realistic. If you live alone, you won't need the same number of apples as a family of four (unless you really like apples). If you rarely cook, don't stock up on goods that have to be cooked in order to be consumed (such as baking supplies or dried grains and beans).
4. Buy funny-looking produce. Many fruits and vegetables are thrown away because their size, shape, or colors don't quite match what we think these items "should" look like. But for the most part these items are perfectly good to eat, and buying them at a farmer's market or the grocery store helps use up food that might otherwise be tossed.
5. Have a Plan B. Let's say you buy Camembert to make a fancy dish for that fancy dinner party — and then the dinner party is canceled. Don't toss the cheese! Instead, come up with a backup recipe and use it in a different dish (or just eat it plain, because c'mon — it's cheese).

#### *At Home*

1. Practice FIFO. It stands for First In, First Out. When unpacking groceries, move older products to the front of the fridge/freezer/pantry and put new products in the back. This way, you're more likely to use up the older stuff before it expires.
2. Monitor what you throw away. Designate a week in which you write down everything you throw out on a regular basis. Tossing half a loaf of bread each week? Maybe it's time to start freezing half that loaf the moment you buy it so it doesn't go stale before you're able to eat it.
3. Take stock. Note upcoming expiration dates on foods you already have at home, and plan meals around the products that are closest to their expiration. On a similar note, keep a list of what's in
  1. the freezer and when each item was frozen. Place this on the freezer door for easy reference and use items before they pass their prime.

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4. Designate one dinner each week as a “use-it-up” meal. Instead of cooking a new meal, look around in the cupboards and fridge for leftovers and other food that might otherwise get overlooked.
5. Eat leftovers! Brown-bag them for work or school for a free packed lunch. If you don’t want to eat leftovers the day after they’re cooked, freeze and save them for later (just remember to note when you froze them so you can use them up in a timely fashion).
6. Use it all. When cooking, use every piece of whatever food you’re cooking with, whenever possible. For example, leave the skin on cucumbers and potatoes, sauté broccoli stems along with the florets (they taste good too; we promise!), and so on. Bonus: Skins and stems often have provide additional nutrients for our bodies.
7. Store better. If you regularly throw away stale chips/cereal/crackers/etc., try storing them in airtight containers — this should help them keep longer (or, of course, just buy fewer of these products).
8. Repurpose leftovers scraps. Use vegetable and meat scraps in homemade stocks, and use citrus fruit rinds and zest to add flavor to other meals. Want more ideas? Check out these resources for using up food scraps.
9. Check the fridge. Make sure it’s functioning at maximum efficiency. Look for tight seals, proper temperature, etc. — this will ensure that the fridge keeps food fresh as long as possible.
10. Preserve produce. Produce doesn’t have to be tossed just because it’s reaching the end of its peak. Soft fruit can be used in smoothies; wilting vegetables can be used in soups, etc. And both wilting fruits and veggies can be turned into delicious, nutritious juice.
11. Donate what you won’t use. Never going to eat that can of beans? Donate it to a food kitchen before it expires so it can be consumed by someone who needs it. Check out this resource to locate a food bank near you.
12. Donate the gross stuff, too! Many farmers happily accept food scraps for feeding pigs or adding to a compost heap. To find farms near you, check out one of these resources.
13. Store food properly in the fridge. Learn how and where to store specific products in the fridge, and they’re likely to keep longer (hint: they don’t call it the “produce drawer” for nothin’!).
14. Store things properly in the freezer. Same as above: How and where we store products in the freezer makes a difference in how long they’ll last.
15. Can it. Got more fruit than you know what to do with? Try canning it so it’ll last for months to come. (Plus, who doesn’t love eating “fresh” peaches in winter?)
16. Pickle it. Both fruits and vegetables can be preserved through an easy pickling process.
17. Understand expiration dates. Turns out those expiration dates don’t always have to do with food safety; rather, they’re usually manufacturers’ suggestions for peak quality. If stored properly, most foods (even meat) stay fresh several days past the “use-by” date. If a food looks, smells, and tastes okay, it should be fine. If any of these elements are off, then it’s time to toss it.
18. Compost! Hate potato skins? Don’t feel like turning wilted vegetables into soup stock? No worries; food scraps still don’t need to be tossed. Just start a compost pile in the backyard or even under the sink, and convert food waste into a useful resource.

### *During Mealtime*

1. Check in with your belly. Here it is, ladies and gentlemen: The solution to the “clean your plate!” issue. Simply take a moment to ask your body what it wants to eat, and how much — and then serve yourself that. Or simply start with less food on your plate. If you want more, you can always go back for it — but this way you won’t find out that you’re full and still have a heap of food in front of you. In fact, one study found that reducing portion sizes is an easy way to reduce food waste .
2. Split the dish. If eating out, split a dish with a friend so you don’t waste half of the giant portion sizes found at many restaurants.
3. Take home leftovers. Even if you’re not into splitting meals, those portion sizes don’t have to be wasted. Just ask to take leftovers home (bonus eco points if you bring your own reusable container!), and you’ve got yourself a free lunch the next day.
4. Share. Made a quadruple recipe of a casserole you ended up disliking? Gift it to friends, family, or neighbors — they’re likely to be grateful for the saved money and time.
5. Go trayless. When eating in a cafeteria, skip the tray. Doing so is associated with a reduction in food waste, possibly because it’s harder for people to carry more food than they can actually eat.
6. Educate other people. Sure, nobody likes a Debbie Downer at the dinner table. But turns out simply being aware of the issue of food waste can help make people more attentive to wasting less .

## **Exercise 3: Fitness Tips**

1. **Exercise from the neck up.** Keeping the brain active and fit is imperative to the health of older adults. Not only does it stave off memory-loss illnesses like Alzheimer’s and other forms of dementia, but it also fosters executive function. Try word games and recall exercises. For example, find five red objects during a walk in the neighborhood and recall them when back home.
2. **Pole walk.** Walking poles allow for more balanced mobility than walkers or canes. Walking with poles engages the muscles of the upper torso, which increases upper-body strength and cardiovascular endurance. Consult a physician before making the switch to poles.
3. **Dance like there’s no tomorrow.** Older adults getting regular physical exercise are 60% less likely to get dementia. Exercise increases oxygen to the brain and releases a protein that strengthens cells and neurons. Dance involves all of the above plus the cerebral activity present in learning and memory.

## Conclusions

According to the analysis of the topic and the proposed exercises is evident that a structured educational programme on food, nutrition and waste can be very effective to promote health (nutrition facts) and active citizenship (food waste) of elderly students.

The principal CONTENTS of these training activities can be referred to:

- The importance of implementing strategies for reducing food waste in everyday life;
- The basic principles of reducing food waste: avoid food waste, reduce food waste production / disposal;
- Food and Sustainability;
- Soil consumption and agriculture;
- Local food traditions;
- Label
- Good practices
- Assess and formulate policies
- Purchasing and menu design
- Food storage and handling
- Kitchen waste classification
- Donation or recycling
- Education and monitoring
- The requirements for cherishing food and reducing food waste
- The green menu
- "Reduce food waste" case study;
- Cooking class with waste food.

The proposed METHODOLOGY for the training is based on non formal and informal methods, as:

- PSYCHOLOGICAL GAMES (Identification technique: participants can get in touch with not perceived aspects of themselves; Role play: lets them experiment many situations and different roles)
- PEER EDUCATION
- COOPERATIVE LEARNING: method that the group envisages a condition in which the contents are transferred and processed through the contribution of each person present

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