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# FOOD FOR HEALTH

PARADOXES OF FOOD AND HEALTHY LIFESTYLES IN A CHANGING SOCIETY

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The contemporary world is experiencing a major food emergency. The food we choose to eat, its production chain, the ways and places in which we consume it, and its inequitable distribution in different parts of the planet have a profound effect on the mechanisms that govern our society and our times.

In recent years, it has become necessary to compare the different points of view of the actors involved in the field of food. Ever since its creation in 2009, the Barilla Center for Food and Nutrition has established itself as a privileged platform for this choral dialog and for a wide range of issues about food and nutrition.

The BCFN's aim is to become a collector and connector between the different voices, offering

solutions and proposals, and putting science and research in communication with policy decisions and governmental actions.

The BCFN is dedicating an area of study and research to every crucial issue related to food and nutrition, to address current and future challenges: from the problem of access to food and its distribution in the world (*Food for All*) to the rebalancing of the unstable relationship between food and health through healthy lifestyles (*Food for Health*), from reflection on the food chain and assessing the impact of production on the environment (*Food for Sustainable Growth*) to the history of the relationship between man and food, in order to find some good solutions for the present. (*Food for Culture*).

## FOOD FOR HEALTH

### PARADOXES OF FOOD AND HEALTHY LIFESTYLES IN A CHANGING SOCIETY

In this new magazine, the Barilla Center for Food & Nutrition deals with the issue of food as a vehicle for good or ill health, and the social, environmental, health, and economic impacts that stem from different lifestyles and eating habits.

A broad-ranging dialog which weaves together the proposals of the most authoritative figures on the international scene – from Michelle Obama and her important awareness campaigns which are changing the daily lives of Americans, to Paola Testori Coggi (EU), Massimo Montanari, Jean-Michel Borys (EPODE), and Ellen Gustafson – with those of the BCFN experts, Camillo Riccardi and Gabriele Riccardi.

Plus, an article on the Italian Auxological Institute, the BCFN Yes! ideas, an interview with the Santini brothers of the restaurant “dal Pescatore” in Canneto sull’Oglio, as well as in-depth reports on the importance of the food culture for a healthy diet, columns, and infographics.

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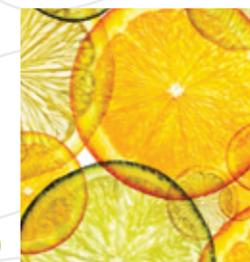
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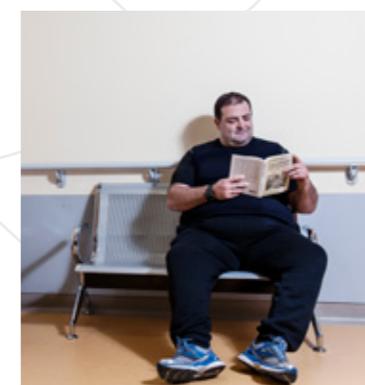
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# A DIALOG ON HEALTHY AND SUSTAINABLE FOOD

BY **GUIDO BARILLA**  
BCFN President

The Barilla Center for Food & Nutrition has been an interlocutor to promote ideas and best practices to people and institutions for improving the eating habits of everyone: if each of us pays a little attention every day, we can reverse current and disturbing global trends.

The BCFN studies have confirmed that lifestyle and nutrition have a very strong influence on the onset of chronic and neuro-degenerative diseases. The obesity epidemic, especially among young people, its appearance in countries in the developing world, and the increase in the number of people with diabetes, have an effect on the health of individuals, on the quality of their life, and on the costs of healthcare services. With a world population that is increasing and living longer, it is necessary for governments and institutions to be more and more committed to promoting eating habits that are healthy and sustainable for the people, for the environment, and for the national economies, and that everyone involved in producing, transforming, and distributing food offer people

products that are increasingly in line with the correct indications and accessible to all.

For this reason, it is important to establish an ongoing dialog with those involved in food in various areas, just as it is essential to help people participate more and more in making the small and large food choices every day that have a crucial impact on their own health and on the planet.

The BCFN magazine has been created with this precise goal in mind: to promote a wider and more direct relationship between people and the most authoritative representatives of Italian and international institutions, the scientific world, and the leading realities of the culture of food and nutrition. The dialog begins with this first issue, dedicated to healthy lifestyles and healthy and sustainable eating habits in an increasingly globalized and changing society.

*Guido Barilla*

# EUROPEAN ACTION IN TERMS OF DIET

BY PAOLA TESTORI COGGI

DIRECTOR-GENERAL FOR HEALTH AND CONSUMERS - EUROPEAN COMMISSION

Chronic diseases are the cause of 86% of deaths in Europe and 77% of medical expenses. The WHO data confirms that intervening on diet, physical activity, and smoking can prevent 80% of the cardiovascular diseases, 80% of the cases of type 2 diabetes, and 40% of all cancers.

Unfortunately, the trend is not positive: we move too little, our diet is too high in fat, sugar, and salt, and it contains too many calories. Reversing the trend would have a decisive impact on the economy and productivity of our society. In the case of children, better health can have a positive impact on educational attainment, and thus, on the productivity of the future. The European Commission has been at the forefront of these issues, starting with the 2007 *White Paper on Nutrition, Overweight and Obesity*. One of the main tools of our strategy is the “European Platform for Action on Diet, Physical Activity and Health,” that promotes concrete actions by various European organizations for the improvement of nutrition and physical activity. This forum brings together representatives of the food industry, consumer associations, and other organizations at the European level that voluntarily undertake to carry out a series of actions (over 300 completed to date) for the reduction of obesity in Europe. For example, the Platform members are commit-

ted to changing the advertising of food products by, among other things, eliminating the promotion of soft drinks for children, providing nutritional information on food produced by fast food restaurants and improving their variety, reducing or eliminating hydrogenated vegetable fat in a number of products, promoting physical activity by supporting sports events, and reducing the saturated fat content in chocolate bars.

*In 2013, the Platform’s new actions will focus especially on children, adolescents, and disadvantaged economic groups, the ones most affected by the crisis. I want to highlight four priority areas for the European Commission in the near future:*

- *reformulation of food:* it will be necessary to set ambitious targets for the reduction of certain nutrients;
- *advertising:* it is necessary to define parameters and standards to protect the younger generations;
- *physical activity:* in particular, creating environments and situations that facilitate physical exercise;
- *prevention:* we must work to show that prevention is crucial in order to reduce diseases and improve the lives of citizens.

Prevention can also play a very important role in limiting the economic impact of chronic diseases on our health systems, thus contributing to the fiscal sustainability of health.



# FOOD AS A VECTOR FOR HEALTH

*How long we can expect to live and how we will live depends on our diet and lifestyle. In particular, scientific studies from around the world paint a picture in which the type of food we eat affects not only our weight but also our well-being. Obesity, diabetes, cardiovascular disease, cancer, and Alzheimer's disease: today, the food on our tables can result in good or poor health.*

EDITED BY MARGHERITA FRONTE

At the end of 2012, the medical journal *Lancet* devoted an entire issue to the largest survey on global health that has ever been conducted. "The Global Burden of Disease," prepared for the World Health Organization by more than 500 experts, evaluated the worldwide spreading of 291 conditions, including diseases, violence, accidents, and large and small ailments that threaten the body and mind, with the aim of understanding how diseases have changed in recent decades, identifying those that have the highest mortality rate or compromise more our health and quality of life, and providing valuable information to those who must plan the health policies of the future. The most important result is, in many ways, also the most surprising: for the first time in history, in fact, the burden of diseases related to an incorrect diet exceeded that of diseases caused by an insufficient caloric intake. In short, in the ranking of risk factors that most threaten the human race, a diet low in fruits has

leaped to fifth place, while undernutrition in children ranks eighth. This data is not trivial, because it allows for a glimpse of future scenarios in which chronic conditions related to an unbalanced diet high in calories will be increasingly common even in countries that, until recently, seemed immune. The report then pictures a general increase in life expectancy, which from 1970 to 2010 rose from 61.2 years to 73.3 for women, and from 56.4 to 67.5 years for men. However, this does not correspond to an equally good performance in improving the quality of life. Basically, people live longer, but the second part of life may be even more difficult than it once was; instead, the real goal is to live well for a long time. Even now, throughout the world, two out of three deaths are the result of chronic non-communicable diseases – such as cardiovascular disease, diabetes, and cancer – that can last for many years and are very closely linked to eating habits. Heart attacks and strokes are among the leading causes of death at all latitudes

**5<sup>th</sup>** place

A diet low in fruits ranks fifth among the threats to the health of humanity

**11** years and more

Between 1970 and 2010, life expectancy worldwide increased equally for men and women

**7%**  
Italian health care  
expenditure allocated  
to diabetes

(except Africa south of the Sahara), although the mortality rate from these diseases is in an overall decline in the more advanced countries. Among the risk factors, though, hypertension is the greatest threat to global health; also appearing in the top 20 positions are the reduced intake of vitamins, overweight conditions, hyperglycemia, lack of exercise, an excess of salt in the diet, high cholesterol, and a diet low in fish and whole grains. Finally, osteoporosis, which affects 150 million people worldwide, is increasing and now affects one in three women in Europe, among those over fifty years of age. Therefore, what is emerging more and more clearly is that most of the world's population

simple ones. In addition, the caloric intake should be adjusted to the real needs, limiting fatty foods, fried food, and sweets. Regarding lifestyles, the WHO advises carrying out regular physical activity (30 minutes a day), not smoking, and avoiding excessive consumption of alcohol. The links between bad habits and an increased risk of several diseases are equally clear. For example, it is certain that overweight children are predisposed to type 2 diabetes, which was once a disease of adults and the elderly, whereas it now also increasingly affects young people. Moreover, several studies have shown that even a modest decrease in body weight improves the body's response to insulin, the hormone which

suffers from the globalization of bad eating habits. And this is in view of the fact that, on the basis of many studies, the most authoritative international scientific associations have long identified lifestyles and eating habits as capable of protecting health. For example, they have protective effects against the major chronic diseases and aging: fruits and vegetables, fish (2-3 times a week), condiments of vegetable rather than animal origin, and complex carbohydrates, preferable to

regulates the cells' absorption of glucose, to which the diabetic person no longer reacts properly (this latter phenomenon initially manifests itself as a resistance to insulin, determining elevated concentrations of glucose in the blood, and then develops into diabetes 2). The consequence is that restricting caloric intake and increasing energy expenditure allows people to control their weight and prevent, or better curb, disease. Therefore, physical activity, a diet high in fiber, and a reduced

**+34%**  
The growth in the number of  
diabetic people in the world  
between 2003 and 2009

intake of fat (with a preference for unsaturated fats) have a protective effect. However, the Western way of life increasingly forgets these habits, and the result is that the number of people with diabetes rose 34% between 2003 and 2009. And the figure is expected to increase and produce significant costs for the individual and for the community. In fact, diabetes is one of the diseases that most affect the quality of life, and one of the most expensive for the health services. According to the International Federation of Diabetes, in 2007 alone, \$232 billion were spent on this disease around the world, and in 2025, the figure could reach \$302 billion. In Italy, the management of diabetes and its complications

heart and blood vessels is strongly influenced by many factors, such as smoking, physical activity, and diet. With regard to the latter, in the spotlight of scientific studies are the intake of saturated fatty acids – resulting in particular from meat products and cheese – and especially trans-fatty acids, primarily related to industrial products containing hydrogenated fats and “extreme” fried foods (with an inadequate exchange of oils used), and only to a small degree as a natural content in milk products. In particular, trans-fatty acids make the amount of LDL cholesterol (known as the “bad” kind) increase in the blood, favoring its accumulation on the walls of the arteries and the formation of thrombi, and the

cost €7.7 billion a year, 7% of the total health expenditure. Cause-effect relationships are well documented also between poor diet and cardiovascular diseases, which involve high costs for drugs, hospitalization, and rehabilitation, as well as lost workdays and other social impacts. In Europe, it is estimated that the costs of these diseases is around 200 billion euros per year, while in Italy, these totaled about 22 billion. The health of the

reduction of HDL cholesterol, the “good” kind. The effects are significant: around the mid-Nineties, two independent studies conducted in the United States concluded that diets too rich in trans fats determined 30,000 deaths per year from cardiovascular disease, in that country alone. For this reason, experts recommend avoiding any trans-fatty acids and replacing saturated fats with unsaturated fats, which, instead, have a protective effect on the heart and blood vessels.





The portion of tumors due to poor diet

Among other studies, the Italian GISSI study (1999), conducted on more than 11,000 patients who survived a first heart attack, showed that after three and a half years of taking doses of fish oil, mortality from cardiovascular disease in subjects was reduced by 30%. And more recently, this figure had an important confirmation by a Spanish study, PREDIMED (2013), coordinated by the University of Barcelona.

Published in the *New England Journal of Medicine*, and conducted on 7,447 people who already had major cardiovascular risk factors, the study found that the Mediterranean diet, with extra virgin olive oil or nuts, reduced deaths due to heart attack and stroke by 30 per cent. Another point on which the studies concur is the role of salt: even a modest reduction in its daily intake can have a positive effect on the health of people suffering from high blood pressure. However, despite the ample evidence, in 2012, a study by the Institute of Health estimated that *the daily consumption of salt in Italy is about twice as much as the 5 grams recommended by the WHO.*

Instead, there is a controversy concerning the benefits for the heart and vessel of antioxidants and vitamins, which also play key roles in cancer, and (probably) in dementia and neurodegenerative diseases. For the latter, affecting 1 to 5% of people over sixty-five years of age, and 30% of those over 80, the studies are more recent but seem to agree on the neuro-protective role of vitamins E and C, beta carotene, and flavonoids, while replacing saturated fats with polyunsaturated fats can reduce the risk of vascular dementia, determined by a reduced blood flow to the brain linked to the

poor state of the veins and arteries. Reductions in the incidence of Alzheimer's disease, in the end, also seem to be linked to a hypo-caloric diet: the proof is that in some regions of China and Japan, where the average caloric intake is 1,600-2,000 calories per day, the disease is less common. The effect of diet on cancer has been studied longer, so it has been possible to estimate that, in industrialized countries, 30% of all cancers can be traced back to poor nutrition. Although habits such as tobacco smoking have a greater weight, of course, the International Agency for Research on Cancer (IARC) of Lyon has estimated that being overweight and physical inactivity play a role in 20-35% of the cases of breast, colon, kidney, and esophagus cancer, while food and extra pounds are certainly also linked to cancer of the colon and rectum, more common in people who eat more red meat and sausages, and more rare among those who follow diets rich in vitamins, fiber, and antioxidants. According to the estimates made by the WHO, in 2010, one adult out of six died of cancer, while other studies estimated that, in the U.S. alone, direct medical costs for this disease rose from \$1.3 billion in 1963 to \$93 billion in 2008. These victims and costs could be limited with a policy that is more attentive to the quality of food and, more generally, to prevention. Moreover, the model on which to focus has emerged very clearly from scientific studies. *The Mediterranean diet is, in fact, undoubtedly the most healthy, and is also the most environmentally friendly, because it consists mainly of foods such as fruits, vegetables, and legumes, which have a lesser impact on the environment.*

## TO DIE FROM HUNGER OR FROM OBESITY?

IN THE WORLD TODAY



TODAY, THE NUMBER OF PEOPLE WHO DIE DUE TO



## TOP 10 RISK FACTORS FOR MORTALITY

The Global Burden of Disease, prepared for the World Health Organization and published in 2012, aims to understand how diseases have changed in recent decades. For the first time in history, the risk of mortality due to diseases related to bad eating habits exceeded that of mortality due to diseases caused by an insufficient calories.

	2010	Var.% vs. 1990
1	<b>High blood pressure</b>	<b>+27%</b>
2	<b>Smoking</b>	<b>+3%</b>
3	<b>Alcohol use</b>	<b>+28%</b>
4	<b>Household air pollution</b>	<b>-37%</b>
5	<b>Low Fruit</b>	<b>+29%</b>
6	<b>High body-mass index</b>	<b>+82%</b>
7	<b>High fasting plasma glucose</b>	<b>+58%</b>
8	<b>Underweight children</b>	<b>-61%</b>
9	<b>Ambient PM pollution</b>	<b>-7%</b>
10	<b>Physical inactivity</b>	Not present in 1990

# HEALTHY WITH THE MEDITERRANEAN DIET

BY GABRIELE RICCARDI

There is no such thing as an ideal diet – because there cannot be one. The world is too full of customs, traditions, tastes, and biodiversity to restrict them within the confines of one “perfect” food style. But in the last seventy years – ever since the American nutritionist Ancel Keys, who landed in southern Italy with the Allied troops during the Second World War, realized the close connections between diet and cardiovascular diseases – there has been a lot of scientific research studying the Mediterranean diet, showing that it closely approximates the ingredients and composition of an ideal diet. In particular, in the Fifties – starting with Keys and his study of seven countries, and then in the Nineties with Trichopoulou and the study by the EPIC (European Prospective Investigation into Cancer and Nutrition) – the clinical and epidemiological research intensified, showing that the Mediterranean diet produces measurable benefits in terms of improved health. *The long-*

*standing dietary habits of the Mediterranean people – who, often, are less well-off, as Keys noted – are now considered the most consistent with the dietary guidelines produced by institutions and scientific researchers: a high consumption of vegetables, legumes, fruits and nuts, olive oil, and grains; a moderate consumption of fish, dairy products, and wine; and a low consumption of red meat and sausages.* In nutritional components, among other things, this translates into the intake of mono-unsaturated fat in place of saturated fat of animal origin, complex carbohydrates, sometimes whole grains, and proper protein intake, with a predominance of those of plant origin.

This type of diet is beneficial to health in many ways: protection against the most widespread chronic diseases and, in particular, a decrease in cases of hypertension, diabetes, and obesity, lowering of the rate of cholesterol, less cardiovascular disease (10%), lower risk of heart attack (72% less) and thrombosis. In addition, several



## DISEASES AND IMPLEMENTATION OF THE MEDITERRANEAN DIET

Main scientific studies

### 1950 Seven Countries Study

Cardiovascular diseases

### 1974 Ancel and Margaret Keys

Identification of the characteristics of the Mediterranean diet

### 1993-1999 EPIC study

Gastric cancer

### 1995 Trichopoulou

Mortality

### 1999 De Lorgeril

Risk of re-infarction (heart attack)

### 2005 Fung

Stroke

### 2007 Panagiotakos

Hypertension, diabetes, obesity

### 2009 Feart

Cognitive decline, Alzheimer's

studies show the contribution of the Mediterranean diet in the prevention of neuro-degenerative diseases, such as Alzheimer's and Parkinson's, decreasing them by 13% and managing to significantly delay their manifestation. These results are very important, especially when you consider that the life expectancy in the world is getting longer and that the increase in the number of the elderly in the population has a great impact on healthcare costs. *Reducing the gap between life expectancy and healthy life expectancy is therefore of paramount importance, for individuals and for society.*

The Mediterranean diet is an answer to many problems of contemporary society and preserving it is now more urgent than ever, because the younger generations – and not only them – are slowly letting themselves go (especially in Spain, Greece, and Italy), with serious consequences for the health of the population. The Barilla Center for Food & Nutrition has underta-

ken to see that, not only in the countries bordering on the Mediterranean, but also in Northern Europe and North America, people recognize the true nutritional value of the Mediterranean diet (Intangible Cultural Heritage of UNESCO since 2010), which is the result of centuries of experience and the knowledge produced by hundreds of scientific papers, and now, also reinforced by proof that it can help preserve the planet's resources, thanks to its documented low environmental impact.

*Gabriele Riccardi is a Doctor, a Nutritionist and Professor of Endocrinology at the Federico II University of Naples, he is President of the Master's program of Human Nutrition. He is President of the Italian Society of Diabetology and a member of the advisory board of the BCFN.*

# GLOBESITY

## THE SOCIAL COSTS IN A WORLD OF GREATER LONGEVITY

*The global increase in obesity means ill health, but also economic and social costs that are characterizing our contemporary world. Costs which weigh on public health costs and daily life. An overview of the global situation of obesity, with the help of the OECD Senior Health Economist, Franco Sassi.*

EDITED BY MARCO BOSCOLO

# 68%

The percentage of Americans with a BMI greater than 25

# 31,6%

Percentage of Italian school-age children who are obese

# -9%

American women who are 29 kilos overweight earn 9% less

# 347,5 Billion euros

The estimated cost of obesity in Italy between 2010 and 2050



Often, looking at photographs of ourselves when we were younger may not be a fun experience. The comparison between the way we were and how we are today inevitably shows the large or small changes that make us nostalgic about the past. Often, too, we find that although we thought we had not exaggerated too much at the dinner table in recent years, our waistline has widened alarmingly.

But what would happen if we were to compare the photographs of all the inhabitants of the Earth? What would we discover as we look at how we were at the global population level in 1980 compared to now?

It would not make much sense to ask whether we are more or less beautiful, but surely we can ask ourselves if we have gotten fatter, and the question can easily be answered by the data collected and analyzed by the Organization for Economic Cooperation and Development (OECD): *in thirty years, the obese or overweight population has doubled.* “The situation varies greatly from country to country,” says Franco Sassi, Senior Health Economist of the OECD and author of the book *Fit not Fat: Obesity and the Economics of Prevention*, “but there is no doubt that in general terms, recent years have seen a growth in the rate of overweight conditions and obesity.”

There are some countries where the current rate is low, such as the Asian countries, but this result is mainly due to the fact “that they started from much lower levels than elsewhere, because if we look at the growth rates, they are still comparable to those of other countries.” Take the United States, for example, which in many ways is a case in point of this transformation: *today, only one in three Americans is of normal weight, the others have at least one problem linked to being overweight.*

If we consider only the obese, the most delicate part of the population in terms of health consequences, we are talking about more than

78 million people, nearly twenty million more than the entire Italian population.

But what does being overweight mean? And when do the extra pounds trigger the obesity alarm? According to one definition, the excess weight can be considered simply an excessive accumulation of fat within the body of an individual. This means that, compared to an ideal weight for our height, we have accumulated a quantity of fat which, as noted by the World Health Organization (WHO) and virtually any medical research center, has negative consequences on health because it is an active risk factor for diseases such as cardiovascular disease and diabetes, and because it can lead to situations of more or less severe disability.

Over the years, researchers have adopted the *Body Mass Index (BMI)* as a numeric indicator to more accurately assess the situation of each of us. To calculate your BMI, it is sufficient to divide your own weight by your height squared: up to 25, one’s BMI is normal, over 25 is considered overweight and above 30 is considered obesity. This is the index on which the statistics on the prevalence of obesity in the world is based.

When we read that, *in Italy, obese or overweight people make up 45.2% of the adult population* (most recent OECD data), this means that almost one out of two Italians has a BMI over 25. However, this figure has remained far below the OECD countries’ average of 51.4%. In the case of our country, the data, at least in part, must also be considered with due caution. In fact, the Italian numbers refer to the results of interviews in which the respondents themselves declared their height and weight. The possibility that more than one person had subtracted a few pounds to improve their condition is therefore real. “In countries where the situation is worse than in Italy,” says Franco Sassi, “such as the United States (68%), Britain (61.5%), and Mexico (69.5%), the data that we can analyze relates to the actual measurements of the weight and height of the citi-

## 78 million Obese people in the United States





zens. The fact that in Italy there is not yet a similar system of measurement on a national basis makes some experts think that the rate of overweight conditions and obesity that we read about is underestimated: in recent years, attempts have been made to actually measure the citizens, but this kind of study has not yet been carried out on a statistically significant number of individuals.”

Looking beyond national borders, in Europe, in addition to the aforementioned UK with 61.5%, Germany also has a high value, which stands at 52.4. Across the Atlantic Ocean, in Brazil, half of the population is overweight or obese (50.6%), while because of the low starting point, things are better in Asia, where India (16.0%), China (29.1%), and Japan (24.9%) record the best data. But the overall situation remains a concern for the health of the world’s population, whose constantly expanding waistline even in the poorest countries has prompted the WHO to define the current situation as a real global epidemic: a concept synthesized with the Anglo-Saxon neologism globesity.

In addition to the known health problems faced by every overweight or obese person, governments around the world have begun to worry about the socio-economic impacts of this particular epidemic. Obesity, in fact, is not a contagious disease, as the flu or the measles can be.

Yet we now know that it is somehow transmitted within social circles. “We know that in households where at least one parent is obese,” explains Sassi, “it is more likely that their children are obese compared to families with parents of normal weight.” But the same phenomenon exists between friends and acquaintances, in what are called social networks. If we add this original transmissive mode to the size of the global phenomenon that we have described so far, then the “definition of epidemic seems entirely appropriate” also in terms of the socio-economic impacts.

Throughout his or her life, an obese person will tend to take advantage of the care of the health system more often than those who have a normal weight. This results in a higher cost burden on the budget of the national welfare. According to calculations by the Centers for Disease Control and Prevention (CDC), for each BMI point above 30 (thus, a state of obesity), annual medical expenditure per capita increased by 8% in 2006, the year of the most recent estimate, equivalent to around \$300. People with a BMI between 30 and 34 spend about 20% more on their health than those with a normal BMI.

These are costs that, in the case of the Italian public system, have a direct impact on the health budget. An evaluation made in 2011 by the BCFN taking into consideration the epidemiological trends indicates that in the period between 2010 and 2050, obesity will account for a total cost of 347.5 billion euros.

**+20%**

The increase in health expenditures of those who have a BMI between 30 and 34

This has resulted in ten financial maneuvers such as the one approved by the Monti Government in December 2011 and defined as an emergency.

Along with these general economic facts, we must also add the impact of obesity in the world

of work. “Today, we know that an obese person has greater difficulty in finding a job and is more likely to lose it than those who are not overweight,” adds Sassi. For example, in Great Britain, the probability of not being employed is 15-20% higher for an obese person.

In Australia, this probability drops to 8%, but it goes back to 20% if obesity is added to the advanced age of the worker. The differences between obese people and those of normal weight also continue in terms of salary, with American women who are 29 kilos overweight earning 9% less compared to those of normal weight: the equivalent of a colleague who has three years less work experience or a year and a half less of education.

In the late Eighties and the first half of the 2000 decade, growth in Italy, Spain, and

some countries of Eastern Europe reached a record: the percentage change was 25% greater, placing these countries among the worst in Europe. However, signs have appeared in the last few years that, although not exactly reflecting the opposite, at least show stabilization of the growth curve.

“When we published an updated version of *Fit not Fat* in February 2012,” says Sassi, “we pointed out that the majority of the OECD countries have shown a slowdown compared to the previous period.”

Of course, we cannot really speak of a decisive phenomenon able to reduce the portion of the population that is overweight or obese: we are not becoming any leaner, but neither are we becoming any fatter than we were before. However, this slight improvement “is not an insignificant phenomenon,” which has come after such a constant growth.

*But if we really wanted to try to look into the future and see how the waistline of the inhabitants of the Earth will be tomorrow, we must look to the children of today. Globally, one in ten children of school age is obese. The situation in Europe is inhomogeneous, with the OECD data (group-*

*ping both overweight and obese children together) indicating 14% in France, 24.7% in the UK, and 19.9% in Germany. Italy is the worst of all, with 31.6%, a figure very close to the 35.5% of the United States, the world “record-holder.”*

“The fact that a general slowing of the spreading of the problem has been glimpsed cannot be an excuse for inaction,” concludes Franco Sassi. “Actually, now is exactly the right time for the governments of the economically advanced countries to implement effective strategies to reduce and prevent obesity.” Strategies that enable everyone, “including private citizens, to see the benefits of acting to curb the epidemic of obesity”: on all levels, from the obvious one of health to the socio-economic impacts on the entire community.

For children and adolescents, small interventions on dietary habits and lifestyles are often sufficient in order to obtain significant effects on excess weight. An improvement in health can be ensured by a well-balanced diet, one that has an alternation every day of all the major macro-nutrients, that avoids foods too high in calories with high concentrations of fat and salt

## DOES SUSTAINABLE EATING COST MORE?

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Eating in a way that is healthy does not necessarily mean spending more. Several studies show that a healthy diet with a low environmental impact is not necessarily more expensive than one which includes meat, fish, and desserts every day. The BCFN examined the data from the 2012 Prices Observatory and found that a weekly menu in Italy consists of fruit, vegetables, grains, and meat and fish at least twice a week (thus, with a balanced consumption of animal and vegetable proteins), and costs less than a diet that includes the consumption of meat or fish at least once a day. If the first kind of diet can cost an average of €50 in the North and €44 in the South, the second kind costs between €53 and €46.



Source: BCFN, *Double Pyramid 2012: enabling sustainable food choices.*



and, instead, is rich in the vitamins, iron, and calcium necessary for their development. *The recommended daily intake of calories should be distributed in a balanced way over the three main meals and snacks (one in the morning and one in the afternoon), and the awareness that the reduction of sedentary activities such as sitting at the computer or watching television in favor of greater physical activity, meaning both sports and just playing, is a prelude to a healthy life. Many of these rules also apply to adults. Increasing physical activity, such as walking or cycling for 30-60 minutes most days of the week, helps you stay fit and avoid putting on the pounds that you may have lost, contributing substantially to decreasing the risk of developing chronic diseases. Even as adults, it is important to continue*

*to eat fruits and vegetables daily, preferring sources of complex carbohydrates and grains, while limiting the use of salt, and in general, varying one's diet by alternating animal and vegetable proteins (like legumes, for example), avoiding sugary and alcoholic beverages, and preferring condiments of plant origin, such as olive oil, compared to those of animal origin, such as butter and lard. In other words, losing the excess weight, taking on a more active lifestyle in physical terms, and trying to eat in a “balanced” way prevents many cardiovascular diseases, diabetes, and even cancer, as well as having a positive effect on the onset of neurodegenerative diseases and osteoporosis later in life. A healthier life in order to live better today and look forward to your future with serenity.*

# HEALTHY DIET: A CHORAL COMMITMENT

*«We find it difficult to accept that our way of life has negative effects on our health, and society considers obesity to be an aesthetic problem rather than one of health. Many steps still need to be made to improve our knowledge about nutrition and to trigger a balance in the food-health dynamic».*

BY CAMILLO RICORDI

While science continues to confirm the close dependence of certain diseases on lifestyle and diet, the institutions, individuals, businesses, doctors, the media, and society as a whole have not made such advances in positively altering people's daily rapport with food. We have not yet understood the extent of the problem: we find it difficult to accept that our way of life has negative effects on our health, and society considers obesity to be an aesthetic problem rather than one of health.

*Many steps still need to be made to improve our knowledge about nutrition and to trigger a balance in the food-health dynamic.*

Exploring the theme of healthy eating has been one of the priorities of the Barilla Center for Food & Nutrition since its inception. After several studies, data analysis, and reflections, the BCFN has become one of the interlocutors in the dialog on nutrition, suggesting some best practices – Individual, institutional, industrial, healthcare – which could reverse and influence global trends.

## RESEARCH NETWORKS

It is not possible to act properly concerning the eating habits of the people, and therefore their health, without first thoroughly exploring the link between the two. We only know part of the universe of the relationship between gene-nutrient-disease and what the real needs of our body are in terms of food; we do not know how to identify the risk factors of the individual in time and this makes prevention more difficult. In the older population, we do not know what the incidence of the inflammatory state of cells in certain diseases is. As for the young, it is still not clear what effects the intake of certain foods can have on metabolism and the endocrine system, and it is necessary to understand the impact of environmental pollution and the role of physical exercise, and to learn how to compose meals and how to best distribute them during the day. In order to achieve this, according to the BCFN, the creation of a national research

The combined commitment of institutions, the media, and consumers

Create a national research network

Mobilize public opinion

Propagate good habits (in an unequivocal way)

Explore the tie between food and health



network to share the results of studies – basic and empirical – and devise intervention projects could be of great importance. *And considering the importance of its agri-food sector, Italy could become the country of reference in this field, combining scientific research, technological development, and economic growth.*

### TARGETED COMMUNICATION

To create awareness in people and society, proper information and education through unambiguous messages are essential. *There must be a common model to promote and pursue in order to motivate people to have a healthy lifestyle.* A coordinated communications effort needs to be made so that the indications offered are practical and workable in everyday life, which is made up of concrete, and not theoretical, situations. In this way, everyone from pediatricians to schools, from family physicians to institutions, will widely communicate an unequivocal image of health and become committed, in a coordinated way, to promoting interventions of prevention at all levels. Physicians and institutions will educate people about prevention, with the media appropriately conveying the right messages, the industry – as a key element of the process – providing an adequate supply of products, and the consumer taking on a more active and aware role in making their choices.

### COORDINATING THE PLAYERS

These are the players who, according to the BCFN, should be involved in the integrated plans of action. First of all, the *institutions* that – addressing businesses, the media, and consumers – will propose medium- to long-term action programs. These intervention plans will have to be carried out in a structural perspective and be aimed at permanently affecting eating habits; they should at the least have a national breadth and follow *an approach of active education, including information and direct experience.* Reliable systems of measurement should be established in order to better assess the results, but more importantly, to obtain returns in future economic health; therefore, it is essential to reserve adequate financial resources for these projects. Institutions, especially those dealing with health, should avoid other easy contradictions, such as placing in hospitals vending machines that contain only snacks, junk food, candy, and soft drinks, when instead, they could be distributing fruit, for example. The *medical profession* should actively participate as a “bridge of communication” regarding correct eating habits. In this regard, the role of pediatricians and family physicians is very important, or that is to say, those who accompany people in their daily health and who maintain a continuing role to play over time.

The *food industry* should meet the needs of global health (pursuing strategies in line with the main nutrition indications), as well as those of the consumer, reformulating existing products and providing them with adequate nutritional labels. To achieve this, the industry must be an active part of the education and communication plan: it should assist governments in public health initiatives and increase consumer awareness through marketing. The *media* should provide accurate and balanced information, with more emphasis placed on institutional, medical, and scientific sources, and not on diets emerging from some trendy impulse. Moreover, they should work with the industry to facilitate the understanding of health messages that are often hidden within some products. Once informed, the *consumers* will have to make their choices consciously, not because they are imposed but because they have been pondered, preferring prevention to the cure, for themselves and for society.

### PAYING ATTENTION TO THE NEW GENERATIONS

The average age of the world population is rising, but it is the young people who are sending the most worrisome signals on the theme of food. A young obese person is more likely to be an obese adult, and a young generation that

is obese or ill – increasing and aging the population – will be a burden to the public health system for a long time. This is why the BCFN has drawn attention to the nutrition of children and adolescents, and believes that in order to educate them properly, special attention and joint efforts are necessary. *Changing those eating habits learned in adolescence which can last throughout adulthood, thus bringing about irreparable consequences, is an extremely urgent matter.* The industry, the media, schools, families, and institutions: the commitment has to be widespread and concrete. It is necessary to carefully evaluate the pros and cons of the implemented measures (like the famous “junk food tax” that may have some unexpected effects, such as not catalyzing real change in eating habits or creating situations of commercial distortions), precisely because of the importance and delicacy of the age group involved.

*Camillo Ricordi is a Professor of surgery, medicine, biomedical engineering, microbiology, and immunology, and Director of the research institute on diabetes and heart cell transplantation at the University of Miami.*

WORLD HEALTH DAY 2013

# A NEW OPPORTUNITY FOR FOOD SYSTEM CHANGE

*This year, the World Health Day is dedicated to hypertension, a condition that occurs in one out of seven people and that is a consequence of lifestyle and the Western diet.*

*This is an issue that deserves attention but above all, solutions for intervening in people's habits.*

BY ELLEN GUSTAFSON

Every year, the World Health Organization celebrates World Health Day and highlights a different health issue to galvanize global attention. This year's theme is high blood pressure – a scourge of both the developed AND developing world. Today, estimates suggest that, globally, one in three adults have high blood pressure and that high blood pressure causes about half of stroke and heart disease deaths. With such a dramatic reach, it makes sense to look at the causes of high blood pressure – overweight, bad diet, too much salt, too little nutrition, smoking, alcohol, and lack of physical activity – basically, the Western diet and lifestyle. Sadly, despite what seems to be a varied and differentiated set of eating patterns and diets around the world, we are all falling victim to diet-related disease (actually, the prevalence of high blood pressure is highest

related disease burden but, rather, is spreading it. While we question how our food became so unhealthy, it is important that we look at the agricultural system that underpins the modern Western diet. This system of monocultures and monopolies, of corn-fed meat and corn-fed soft drinks, of empty carbs and ever-ready calories, is all connected. Sadly, the way we have focused on the overproduction of corn and soy to feed our cows, cars, and soft drinks producers in the West, has also led to tons of corn and soy being shipped overseas to stem hunger in the quickest and most beneficial way (beneficial to the U.S. agribusiness, that is). A few things shifted in our global food system around the time that obesity started to balloon around the world. From the late 1970s, we allowed for greater consolidation of mega-agricultural and food companies, we created new food-like for-



in some of Africa's lowest-income countries, where some forty percent of the people could be affected). Yet again, this disease is an example of the Western diet's impact on the world, and in the same thirty years that obesity has doubled globally and hunger has hung on to affect almost one in seven people around the world, hypertension has spread. Clearly, in the last thirty years, we have been developing a food system that is not reducing the diet-re-

lations (for example, High Fructose Corn Syrup and corn- and soy-based cow and fish feed) which provided a dumping ground for all the commodities a farmer might grow, and we pushed for new technologies that were focused on higher yields of only a few foods, which are all linked to skyrocketing obesity. Also starting in the early 1980s, similar policies changed the way we helped people around the world feed themselves – or, more accurately, we reduced

our aid to agriculture and, instead, funded food aid more heavily. Essentially, the policies that are correlated with the obesity epidemic are correlated with a continuation of hunger over the same thirty-year time period. By developing a system that over-produces and subsidizes a few commodities, and uses them to manufacture tens of thousands of nutrition-less “food” items, we have hooked the world on our cheap, unhealthy diet.

We have also hooked the world's hungry on a stream of our excess that discourages market competition and self-sufficiency.

Although developed world farmers have been able to produce higher and higher yields of commodities, both for us and for hungry people (and cows and cars) around the world, we have not stopped and asked the most valuable questions about our food system. I hope that the focus on the diet-related, global issue of high blood pressure on World Health Day will make us pause and ask some of those questions:

- Is yield the most important value of our agricultural output, or should we be measuring other things, like nutrition or community health?
- If we want a healthy population, what foods should we be focused on growing to feed people?

- How can we ensure that we are growing food for people today, but also setting up our grandchildren for food security tomorrow?

By changing the conversation to focus on issues that will help us address both hunger and obesity – problems that have common roots and common solutions – we can truly have a wider impact on improving the world's health. Organizations like the Barilla Center for Food and Nutrition and Food Tank are starting at the right place, by asking the most difficult and underlying questions about the state of our food system, and the health of the people and the planet. We have the ability to align the goals of feeding the world well and protecting the planet from further environmental degradation; we can both feed the hungry and shift the overweight to healthier diets. *But, we need long-term (like thirty-year) goals, new questions and metrics, and we need to ensure that World Health Day becomes “healthier food system” day, every day.*

*Ellen Gustafson is the co-founder of Food Tank, the founder and executive director of Project 30, and a member of the BCFN advisory board: she is also the co-founder of Project FEED and the FEED Foundation.*

## BCFN YES!

### YOUNG EARTH SOLUTIONS!

The BCFN actively encourages the development of youthful ideas to promote concrete contributions and solutions regarding food and nutrition. Ten ideas which, every year, are evaluated at the BCFN International Forum.

(BFCNYES.COM)



## Water Footprint Calculator

by **Katarzyna Dembska**  
(BCFN Yes! 2012 award finalist)

Today's food model is definitely unsustainable. The Italian population has reached 60 million, and while the consumption of animal protein increases, the reservoirs are empty.

It is therefore necessary to promote sustainable practices that reduce the consumption of animal protein. My project promotes sustainability at the community level, in the schools.

The school is an ideal environment in which educational value is associated with the high number of meals served; the *Water Footprint Calculator* determines the water impact of the lunch prepared for 1,364 users at the Center for Meal Preparation of Quarrata, a small town in the province of Pistoia.

Calculations were made on a meat-based lunch and on an "ecological" plant-based one, both of which were nutritionally complete and consistent with the traditional Mediterranean diet.



The water footprint of a meal containing meat, for 1,364 people, is 995 cubic meters of water. Instead, the vegetable alternative, consisting of a nutritious and balanced dish with pasta and vegetables, can reduce the water footprint by 332 m<sup>3</sup>. The meat, therefore, determines 70% of the water footprint, while the vegetable-based lunch reduces the impact on water resources by 67%. Applied to collective food services, not only does the Water Footprint allow users to precisely calculate the impact on water supplies, it is also a valuable tool to motivate consumers to change their eating habits and reduce their own environmental impact.

## manna From Our Roofs

by **Federica Marra**  
(BCFN Yes! 2012 award winner)

Expanding cities will require an increase in agricultural production at the expense of rural areas, distancing people from the traditional dimensions of food and resulting in lifestyles that are harmful to people and the environment. As a way to rethink the city and educate the public about a new ecology of food, *manna From Our Roofs* aims to turn abandoned buildings into multilayer and eco-friendly farms, with a garden on the roof and innovative farming systems on all the floors. Low-cost accommodations will be provided to young people who experience firsthand the cultivation and preparation of urban agricultural products, and then the harvest will be sold in the shop on the ground floor and at a website on the Internet 2.0, with home delivery by means of zero-impact transport. Participants will attend conferences and courses on food and sustainability, and courses on cultivation and cooking conducted by



internationally-recognized experts, accompanied by the wisdom and traditions of the elders of the community.

The participants will then involve the general public with awareness-raising events (such as gardening programs for schools and the preparation of hot meals for families and the homeless) and through the exchange of ideas and resources on the website (used furniture, appliances, money, and time). With this project, everyone can personally act to reduce the environmental impact and support local production, thus creating a new ecosystem in their own city where, this time, the food has come down from the rooftops.

# EAT & TWEET

edited by **Francesca Pellas**



«We need to re-evaluate value meals!»  
(@ellengustafson)

«The main cause of obesity? Eating habits learned in the family. A child does not grow up in a candy store without eating candy»  
(@DrAseemMalhotra)

«American children are beginning to lose weight. For the first time, in the U.S. there was a reduction in the rate of obesity in children between 2 and 4 years»  
(@Corrierelt)

«Our food culture can be transformed by teaching even one person to cook»  
(@darinaallen)

«French fries should not be considered a vegetable in school lunches»  
(@TEDxManhattan)

«We have set ourselves a goal: every family should have access to fresh, wholesome food at reasonable prices»  
(@MichelleObama)

«Watch your diet: it triggers cancer more than smoking does»  
(@Fondaz\_Veronesi)

«We must raise awareness and individual responsibility by resurrecting the food culture and the ability to cook»  
(@jamieoliver)

«Not all overweight people are from disadvantaged backgrounds, but it is in these contexts that there is more tendency to gain weight»  
(@Anna\_SoubryMP)

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USA  
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# A POLITICAL GARDEN

## MICHELLE OBAMA'S FOOD AWARENESS CAMPAIGNS

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*In a country where 910,000 people die each year from complications related to being overweight, and where there are restaurants that pride themselves on serving food that is injurious to health, Michelle Obama is engaged in ongoing campaigns to promote healthy lifestyles. The vegetable garden at the White House is just one of her important initiatives that are changing the daily lives of many Americans.*

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BY MARCELLO CAMPO

Pamela Green Jackson is a smiling African American woman from Georgia. In 2004, she lost her only brother, Bernard, severely obese since childhood, who died of a heart attack at only 43 years of age. Ever since that day, she has decided that no other person should have to experience this tragedy. Stopping the “obesity epidemic” among young Americans has become the mission of her life: she founded the non-profit organization Youth Becoming Healthy Project ([www.ybhproject.org](http://www.ybhproject.org)), whose symbol is a beautiful red apple. Together with public and private partners, she is working to promote healthy eating habits among American families, based on fresh foods and encouraging physical activity, especially among the very young. Thanks to her efforts, thousands of children have gone outside of the house, they have had an alternative to eating junk food and sitting

on the couch in front of the TV, they have played sports, meeting other kids with whom to play and run. And President Barack Obama has awarded her for her work with the Presidential Citizens Medal, one of the most important American civil honors, during an official ceremony at the White House on February 15<sup>th</sup>. “Thanks go to Pamela for having saved so many of our young people, for managing to put them on the path to a healthier life,” said Barack. This was an important and symbolic gesture which confirms the commitment of the Obama administration in the battle for a radical change in the eating habits of a country where obesity is a major cause of death. Michelle Obama has played a very prominent role in this struggle for a radically new lifestyle. When I first arrived at the White House on January 20, 2009, next to the famous Rose Garden, the First Lady had planted a large vegetable garden where, along



My goal is to address  
and overcome  
the challenge of  
childhood obesity

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With Let's Move, Michelle aims at a radical change in the lifestyle of the young

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with her daughters Sasha and Malia, she grew strictly organic tomatoes, cabbage, potatoes, and onions, without using any chemicals or herbicides. Not only that, Michelle has now become the worldwide ambassador of healthy living, after years of promoting Let's Move everywhere, her famous campaign addressed to all the children of America, inviting them to run and play for at least half an hour a day.

"My goal," Michelle said then, "is to address and overcome the challenge of childhood obesity, so that children born today reach adulthood with a healthy body." To give more strength to her campaign, Michelle has called on pop stars to collaborate with her – like Beyoncé –, she appeared in TV shows on the Disney Channel that are very popular among children, as well as on the top late-night talk shows. Thanks to her perseverance, even the gigantic leader of American fast food chains, McDonald's, has introduced small pieces of fruit and reduced the amount of fries in their famous Happy Meals for little children. To celebrate the third year of her initiative, at

the end of February, Michelle Obama traveled across Mississippi (the state with the highest number of obese people in the country), Illinois, and Missouri, together with kitchen star Rachel Ray, to talk about the new healthier menus served in school cafeterias. The objective was the same for her numerous television appearances and live-chats on Google Hangout and Twitter, where she conversed with American families. To give even more strength to her battle, she published a botanical book dedicated to her vegetable garden, entitled *American Grown: The Story of the White House Kitchen Garden and Gardens Across America*. With *Let's Move*, a physically-fit Michelle not only proposes to reduce excess fat in kids' meals, but also to aim for a radical change in their lifestyles. "With my work," she said, "I want to encourage collaboration between all public and private initiatives, both at the central and the local level, to profoundly influence the causes of obesity, in order to support families in helping their children to be more active, eat better, and, ultimately, to be happier. It is not a

political issue. It is a passion. This is my mission. *I am committed to working with everyone to change the lives of a generation of Americans.*" Driven by this "mission," for years now Mrs. Obama has made visits to schools far and wide in America. She even launched a competition, "Healthier U.S. School Challenge," to reward those who created the biggest gardens and had the healthiest school lunches, following the popular slogan that "the turning point for our health starts in the lunchroom." Because, as she repeats at every initiative, to beat this emergency, everyone must do their part: the parents, the teachers, but also the school itself,

the large distribution companies, the restaurant giants, and local institutions and federal regulations. In addition to Michelle's initiatives, Barack Obama has taken action, too, by establishing the Task Force on Childhood Obesity, a sort of federal agency to launch intervention programs across the country. Moreover, the numbers speak clearly of a silent massacre that is deeply undermining American society: according to official data from the Centers for Disease Control and Prevention (CDC), *at least 65% of the population is overweight and 35% – more than one in three people – is obese.* This percentage rises to 40% within the Afri-



910,000 Americans die each year of problems related to being overweight, which would be like a 9/11 massacre every 27 hours or the Hurricane Katrina victims every 17 hours

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can American community. Last year alone, in the United States, cardiovascular diseases associated with this phenomenon were the leading cause of “avoidable” deaths. For the American Heart Association, 910,000 Americans die each year of problems related to being overweight, which would be something like a 9/11 massacre every 27 hours or the Hurricane Katrina victims every 17 hours.

That the population is gaining weight continuously is also shown by the small details of everyday life: the same T-shirts that are now a size S, or small, just 10 years ago were considered XS, extra-small. Not to mention the enormous damage that the obesity epidemic inflicts on the coffers of Americans: last year, medical costs related to the extra pounds were estimated at around 147 billion dollars. *Every obese citizen spent on average \$1,429 more on their health than a person of normal weight.*

To transport their passengers who, on average, are more oversized than those of other countries, the U.S. airlines consume 350 million gallons

of gasoline more than the other companies in the world. But, money aside, the problem in America is certainly cultural: according to a recent study, in the United States the land used to feed and raise animals is more than 14 times that used to grow food directly for human beings.

In Texas, and other states as well, there is a very special restaurant chain called Heart Attack Grill, subtitled “The taste worth dying for.” It is not some rather macabre gimmick out of a movie, but a real place where many people normally go for lunch and dinner. As a sort of provocative reaction to the many efforts of Obama and his wife, written on the front of these restaurants is the phrase “Our food is bad for your health” and on the menu, “Dishes that will send you into a coma.” It is not a joke: served inside, are hamburgers ominously called the “bypass burger” that contain at least 6,000 calories, equivalent to about three times the daily requirement of an average person. Even the waitresses, in order to attract male customers, serve at the tables dressed like very sexy nurses. And the whole place is

reminiscent of a hospital. Its founder, Jon Basso, claims to offer “nutritional pornography.” It seemed like one of the many slightly eccentric themed restaurants that will do anything for a little publicity, but this place became infamous on February 13<sup>th</sup> when, almost as a kind of “testimonial,” one of its most loyal customers really did die. John Alleman, 52, was a night porter in Las Vegas who loved to eat at the Heart Attack Grill every day. One evening, he suffered a heart attack, was rushed to the hospital, and died a few hours later. The restaurant closed its doors for a day, as a sign of mourning. But the next day, everything was back to normal.

In short, Michelle Obama still has a lot of work to do to change her country. But what she is doing is already a big step forward in teaching Americans to eat and live better. Michelle tries to set a good example on how to eat well even where little things are concerned: to celebrate her birthday on January 17<sup>th</sup>, the President took her to an Italian restaurant in Washington, Café Milano, to enjoy a good, healthy pasta dish.

*Marcello Campo is an ANSA correspondent from Washington, D.C.*

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EUROPE  
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# CHILDHOOD OBESITY CAN BE PREVENTED

*A project to reduce obesity and overweight conditions in children through the involvement of all the actors in the local communities, so that they create the conditions for permanently changing the habits of families. But above all, a method adopted by many European countries united by the EPODE network.*

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BY **JEAN-MICHEL BORYS**

DIRECTOR OF THE EPODE EUROPEAN NETWORK

**T**oday, there is a real need for practical and effective programs for the prevention of overweight conditions and obesity. Over the past decade, some studies (Kumanyika et al., 2010 and 2008; Doak et al., 2006) have shown that this goal is achievable through interventions on the lifestyle and on the environment, and more specifically, on nutrition and physical activity. Following the *Fleurbaix Laventie Ville Santé* study, which showed a significant reduction of childhood obesity levels thanks to the long-term intervention of a community, the EPODE – Ensemble, Prévenons l'Obésité des Enfants (together we can prevent childhood obesity) program was launched in ten pilot cities in France. Its goal is to help families to permanently

change their lifestyles, thanks to local initiatives in accordance with state guidelines. The main points of the program are: advice on adopting a diversified and pleasant balanced diet at the household level; regular practice of physical activity for everyone; encouragement to create an environment that helps these good habits; and addressing the various issues related to health and body weight, such as the quantity and quality of sleep. The EPODE method is based on the involvement of all the local actors in the town/city and the family, so that they themselves are acting to create an environment that stimulates the adoption of healthy lifestyles. EPODE aims to address the professional practices of these actors permanently, enabling them



**45 million**

Number of obese children in the world between 5 and 17 years of age

to provide families with converging and concrete information. The structure of EPODE provides a central coordination at the national level and a local organization headed by a project leader. The first pillar the EPODE project is based on is that of political commitment: in fact, strong and long-term local political action is necessary for the structuring of a stable local team, for supporting it, and for involving the social actors and the population. The second pillar is a central coordination to ensure the continuous training, from start to finish, of the project leaders, and to assist the local actors in order to continuously help families to change their behavior with a constant group dynamic. The assessment of the EPODE programs takes into consideration

the mobilization of the actors, the family lifestyles, and finally, the impact on childhood obesity, and it is prepared in each country by a committee of experts. The EPODE program resources come from public and private funds, seeing as the public-private partnership is also one of the pillars of the method. The results of the program are extremely interesting: the prevalence of overweight conditions and obesity in children has dropped 22-9% in the first cities involved in the project (in France and Belgium), confirming the validity of the theory on which the method is based. Today, the EPODE method is being used by thirty programs in more than twenty countries around the world, united in the EPODE International Network created in 2011.

REPORT

# A DAY AT THE ITALIAN AUXOLOGICAL INSTITUTE

*The scientific institute San Giuseppe di Piancavallo (Verbania) is the original headquarters of the Italian Auxological Institute, a research hospital oriented toward the study of the rehabilitation of the degenerative processes of metabolic diseases (in particular, severe obesity), auxological pathologies, and neurological diseases. We spent a day there among the patients, doctors, and researchers.*

BY VALENTINA MURELLI  
PHOTOGRAPHS BY SILVIA PASTORE

“One month in here is like six on the outside. The activities, relationships with people, emotions, mostly positive ones, but also anger and sadness: everything you experience is amplified.” Giorgia, 22 years old, is wearing bright blue fingernail polish and her long straight hair is gathered in a bun on top of her head. After 36 days, her stay at San Giuseppe di Piancavallo – a hospital located about twenty miles from Verbania and a center of excellence of the Italian Auxological Institute for the treatment of obesity and related disorders – is about to end and Giorgia is a bit restless. “Mind you, it was fine. With the patients and the doctors, the nurses, and the various personnel. The program has been effective and I’ve learned a lot of things, but now I want to leave.” She is sitting on the edge of the bed, ready to go to the gym, and from the bedside table she picks up a photo of five girls: she is pictured with her best friends at home in Montesilvano, Pescara. “As soon as I get

out, I’m going to see them.” When Giorgia came to Piancavallo at the end of January, she weighed 130 kg. She is leaving at the end of February, 10 kg lighter. “I did not expect it, but then, here you have to be on a diet and do physical activity every day.” All you need to do is look around, and you will understand how particular this hospital is. All the patients walking around in the corridors are fat: obese and severely obese. Very few are dressed in pajamas and many are wearing sweat suits, black or gray pants, and colored T-shirts. This structure is unique in Italy and, in fact, people from all over the country come here. There are the “classic” departments – cardiology, respiratory ailments, internal medicine, neurology – but they are dedicated to the care of obese people, in whom the various pathologies assume particular characteristics. In addition, there is the department of nutritional rehabilitation. Perhaps this term seems unusual in this context, because



“I have experienced the evolution of the treatment of obesity: first there were super-strict diets, now abolished, then physical activity, and finally the introduction of psychology.”  
(Alessandro)



it makes you think more of trauma and physical therapy, but in this case too, it concerns the concept of learning to regain a function that has been lost: a more balanced relationship with food. “We generally have two types of patients,” says Laila Cattani, the vivacious Head Physician of the Operative Unit of nutritional rehabilitation. “There are the essentially obese, who basically like to eat, and there are those with eating disorders, who eat more to compensate for other discomforts.” For both groups, there is something wrong and their relationship with food needs to be restructured. “I eat to compensate for my anxiety. I eat too fast, even at night I get up and binge,” Alessandro, 48, says calmly. Like any good Roman,

introduction of psychology.” By now, he knows the doctors, the approaches, and the structure itself inside out and considers his stay as a sort of holiday. “See how nice it is here?” he asks, pointing to his room on the third floor of the hospital, that has been just renovated. The room, for two, still smells new: pastel walls, wardrobes and bedside tables in light-colored wood, a small table (with Alessandro’s PC, his link with the outside world; his screensaver is a photo of his two children in their twenties), and a spacious bathroom with reinforced bathroom fixtures. And a huge window. The day we met Alessandro you couldn’t see much: a snowstorm was raging outside (we are at an altitude of 1,200 meters: it takes 40 mi-



Alessandro is jovial and expansive and moves through the wide corridors of the hospital as if it were his home. After all, he is a veteran of the place: this is his fifth stay in 20 years. “I have experienced the evolution of the treatment of obesity: first there were super-strict diets, now abolished, then the physical activity, and finally the

minutes by car to get here from Verbania and in these cases, a four-wheel-drive vehicle is best). “But when the weather is good, the view of Lake Maggiore is spectacular,” Alessandro reassures us. Over the many years, he has learned the fundamental law of obesity: it is a chronic disease and you have to learn to live with it. “That’s why I



come back every once in a while, because sometimes I feel like I need a hand.” So what exactly does one do at Piancavallo? “It begins with a clinical exam,” says Dr. Cattani. “The patient’s medical history is collected, the blood chemistry is tested, anthropometric data is gathered, and some specialized tests are performed, such as bioelectrical impedance, which measures the ratio of lean mass to fat mass, and calorimetry, which estimates the basal metabolism of each person, meaning how many calories your body consumes while at rest.” At this point, a multidisciplinary team designs a program tailored to each patient’s hospitalization. First, the diet. “The calorie content varies, but for everyone, every meal includes a first course, side dishes, bread, and fruit,” the Chief Physician says. Some people complain that it is too much: people are accustomed to a strict diet, maybe even removing all carbohydrates (bread and pasta). “In obesity, there is often the paradox of malnutrition,” says the nutritionist Virginia Bicchiera. “In addition to eating a lot, usually the obese eat badly, preferring foods high

in fat and sugar and low in other nutrients.” Second, the physical activity: every day, some use of the equipment (especially the horizontal bike and arm-ergometers), a group walk on the trails around the center, and exercise in the gym. Third, group or individual meetings with the psychologist. And finally, courses on obesity and nutrition: learning the basics of healthy eating, a few tricks to avoid falling into temptation, and how to behave after having made an exception to the rule (it happens, and it is not a failure; you just have to get back on track right away). There is a lot of work to be done on motivation, because that is what will help later, once they have come out of the bell jar of Piancavallo. For example, Brunella came here from Savona, driven by concerns about her health. She tells us that she does not feel her weight to be a cosmetic problem, not having any complications at the moment, but she does not want to live with a “You never know” on her mind. She seems serene and determined. “I am a White Cross volunteer, I accompany people who are sick or disabled. Today, at the age of 28, I have



“It is essential to understand that even small amounts of weight loss can help reduce the various risks associated with obesity, such as cardiopulmonary complications and cancer.”  
 (Amelia Brunani, endocrinologist)



## THE LABORATORY WORK

no problem doing so, but I would not like it if one day the weight became an obstacle.” Instead, the motivation is more tormented for thirty-four year-old Giorgio from Naples. “I have a problem with blood sugar and blood pressure, but most of all, I’m not okay with myself. I am often depressed, I cannot enjoy my family. I want to lose weight.” The program as a whole is rigorous but not too intense and the activities usually end by mid-afternoon. “I was afraid that I would feel lonely in the empty hours,” says Brunella. “But I quickly made friends with a group of girls, so there’s always someone to chat with and pass the time.” The rooms, the corridors, and the café, over a cup of coffee or tea (among the few drinks

allowed), are full of patients talking together; a special solidarity associated with the disease clicks and even people with widely different personalities and inclinations find something to talk about. “But the forced cohabitation, 24 hours a day, is not always easy,” confesses Giorgio, “and it’s the hardest thing for me.” At some point, however, the stay has to end. You go back home. And this is precisely the moment to roll up one’s sleeves and not fall into the wrong routine. “It won’t be easy,” Giorgio admits, “but we have learned some useful strategies. My biggest hurdle will be the physical activity, but I have already asked for help from two friends to go for a walk together every day.” How many of them actually

succeed? “There is no comprehensive study of the long-term impact on our patients,” says Amelia Brunani, an endocrinologist and expert in metabolic rehabilitation. “But the impression is that, unfortunately, not very many of them maintain a healthy lifestyle forever. Those who do – and often these are people who somehow always keep in touch with the Institute – definitely manage to achieve a significant weight loss.” In any case, concerning the matter of weight, it would be good to make a clarification: “It is best not think about what you want, a normal weight that is virtually impossible to achieve, but about what is realistically attainable,” says the endocrinologist. “It is essential to understand that even small amounts of weight loss can help reduce the various risks associated with obesity, such as cardiopulmonary complications and cancer.” And this way, the results seem more consistent. Of course, Giorgia, Alessandro, Brunella, and Giorgio are doing everything they can to achieve that. But it is time to leave them alone: it is lunchtime and the second course is eggplant parmesan Piancavallo-style, with grilled vegetables. Yet the taste is just as good and, along with the chicken thighs and the “Milanese risotto” (all in a “light” version), it is one of the favorite dishes on the menu.

Multifactorial disease. This is how experts define obesity, indicating that there is not just a single cause involved, but rather, many, many components. A mosaic of genetic, hormonal, metabolic, and environmental factors that combine in a complex way which, all told, is still unclear. This is why basic research on obesity is essential, even at the San Giuseppe di Piancavallo Hospital where, for example, there is a molecular biology laboratory that deals with any genetic factors involved in obesity. “Over the last few years, genes linked to the onset of the disease have been discovered: if they are altered, the tendency to obesity is very strong,” says the biologist Monica Mencarelli. Then, in practice, the specialists try to figure out if patients at Piancavallo present mutations in these genes, and also, to discover others that may play a role. Other laboratory investigations concern the hormonal and inflammatory states of obese patients. “We know that some of the cells involved in the inflammatory processes tend to invade the adipose tissue,” says Sabrina Maestrini, another biologist. “But we do not know whether this is a cause or a consequence of obesity.” In the long term, of course, the goal is to gather information to try to develop new therapies.

.....  
A CONVERSATION WITH ALBERTO AND GIOVANNI SANTINI  
.....

# EXCELLENCE IN COOKING? TASTE AND NUTRITIONAL BALANCE

.....

**R**unate di Canneto sull'Oglio is world famous for the restaurant dal Pescatore, an absolute excellence in the gastronomy world. Taste handed down over time, curiosity and the ability to question, constant evolution while maintaining strong ties with tradition: this is the story of the Santini family. Alberto and Giovanni, together with Nadia, Antonio, Bruna, and Valentina, continue on a journey full of charm and solid culinary skills.

**The chef has an important role in educating people about taste and about a healthy diet. How can you reconcile these two “missions”?**

Excellence in cooking can exist both at home and at the restaurant, but if the former is a very special and private relationship between who does the cooking and who tastes the food, in the second case, the relationship is public and the level of responsibility rises. *The role of the chef is crucial for the development of taste and to widen the knowledge of food.* In the age of the Internet, a

chef's understanding of people is vital for making his or her dishes: people's culture and their education are aspects that chefs, with their own culture and education, have to deal with to express their ability to transfer their personality, history, and tradition. The conviviality and sociability that is created around the cuisine are key features for understanding and appreciating taste, products, nutritional aspects, and culinary creations, all the values of cooking today.

**What is the secret?**

It lies in starting from scratch every day. Consistency in excellence is achieved daily and you should always have the ability to listen to customers, and the courage to make major and emotionally painful decisions: about 10 years ago, we eliminated the horse stew, a part of our family's culinary history, because, despite the quality of the dish, it did not meet the changes in taste and culture of the people.

You need to be able to abandon what you did yesterday, and to look with strength and optimism





to the future. It is no longer sufficient to describe and illustrate our Italian gastronomic culture, our heritage of absolute global significance: the challenge is to pass our tradition on through every single dish, while always guaranteeing the greatest care.

For this reason, we are in the restaurant creating dishes every day: the consumer expects to be directly asked for advice.

**With the indisputable increased visibility of the culinary arts, have chefs seen an increase in their influence on education?**

One doesn't go to a restaurant just to eat and drink: it is first and foremost a gastronomic pleasure, but also a cultural experience which is an expression of the place and the unique sensitivity of the chef. Our evolution as a family has always been strongly linked to the ability to hand down knowledge and, above all, a certain taste in the dishes.

But at the same time, this vision always identifies with the present: finding top quality ingredients, very careful use of new cooking techniques, and

balanced interpretations of dishes without ever distorting their true nature. In our way of making the dishes, it is the taste, and not the recipe, which guides the final choice.

This meticulous path is repeated every day; the continuity of this combination of elements is the key to excellence: to make a dish only a few times and not repeat it anymore is like thinking of redoing the floor of your house every day – you lose your history, you lose your roots and cannot even see the future.

**What is the role of food traditions in this educational enterprise?**

*Cooking should be for the present and the foreseeable future, but not for what will be 30 years from now.*

Today, we still eat pumpkin ravioli and certainly not pills or other artificial foods, as some had predicted: this is because the tradition that evolves is strongly rooted, thus allowing us to transfer important values within the natural changes of taste and style. What sense would it make to undo a pumpkin ravioli?

**Often, you hear people say that the “food of the past” was truly good and natural. How true is that?**

A bit of confusion has sometimes been created between past and present. Once, pumpkin ravioli were made drowned in butter and covered with parmesan cheese. That is no longer the case today, and a perfect balance of butter and parmesan cheese has maintained the absolute excellence of the dish and is in perfect harmony with changing tastes. This is the task of a great chef: to evolve the dish with solid values and qualities, yet without distorting it. Was food once healthy and natural? We cannot say for sure; remember that, in the past, aspects of sanitation and product knowledge from a nutritional point of view were certainly not at the present level. We must also be attentive concerning environmental protection: there is a lot of talk about “local,” but we should remind ourselves of historical moments when, for example, in the famous Commerce Square in Lisbon, products would arrive from all over the world and this allowed for the flourishing of knowledge and trade between countries. Is the point the “zero-miles” or how the products are transported?

**Is knowing what you eat and where it comes from good only for the spirit or is it also good for health?**

Excellence today is achieved when the healthy content of the food that is prepared combines well with its taste: both should be expressed at the highest level and only in this case does cooking reach the absolute top. Many years ago, from the point of view of gustatory pleasure, the meal of a farmer was probably no less tasty, but no one ever dreamed of assessing its nutritional content. The simplicity and clarity of the concepts that are the basis of our dishes are the vector to transfer the products of our land and the transformations that lead to the final realization of the dish, to offer our customers a perfect blend of taste and health. Today, the real challenge in creating a dish, while inventing it and preparing it, is to keep in mind that the highest expression of aroma, bouquet, and taste cannot be achieved without the correct nutritional levels.

# MEN(YO)U

## A DAY'S WORTH OF HEALTHY AND SUSTAINABLE MEALS

1

### BREAKFAST

- 1 Glass of fresh-squeezed citrus fruit juice (130 g)
- 1 Croissant (42 g)

2

### LIGHT SNACK

- 1 Cup of skim milk yogurt (125 g)
- 3 Rusks (25 g)

3

### LUNCH

- 1 Serving of risotto with apples and parmesan cheese (230 g)
- 1 Serving of turkey escalope with sage and lemon (135 g)
- Mixed raw vegetables (60 g)
- White bread (60 g)

4

### LIGHT SNACK

- 1 Serving of fruit salad (100 g)
- 1 Package of unsalted crackers (25 g)

5

### DINNER

- 1 Serving of pasta with creamed vegetables (280 g)
- Cured ham (60 g)
- Cured ham (60 g)
- Mixed raw vegetables (60 g)
- White bread (60 g)

BCFN



# “WHAT YOU LIKE IS GOOD FOR YOU”

## UTOPIAN MEDIEVAL THINKING

*Nutritional science today is no longer that of the Middle Ages. It no longer speaks the language of Aristotelian physics but that of chemistry. Yet it continues to have a profound effect on the way we approach food: the rules of health continue to be, first and foremost, dietary laws, and the wise dietician does not hesitate to recognize that the pursuit of pleasure is perfectly compatible with health needs.*

BY MASSIMO MONTANARI

The relationship between pleasure and health, which is often perceived as conflictual, has long been thought of under the sign of alliance and mutual benefit. Medieval nutritional science was governed by a fundamental certainty: what you like is good for you. And vice versa: you like what is good for you. In this perspective, the pleasure of eating was the main test of the healthiness of a food and a true guide to health: “If the human body is healthy, all the things that taste better in the mouth are those that best nourish it,” wrote Aldobrandino of Siena, a doctor during the thirteenth century. In the following century, a Milanese physician, Maino de ‘Maineri, also clearly stated: “By using condiments, foods become better tasting,

and consequently, more digestible. In fact, what people like best, is better for their digestion.” This conviction arose from a precise line of logic: on the one hand, there is the subject, the human being, who, driven by his/her appetite, is attracted to one food rather than another; and on the other hand, there is the object, the food, that has its own particular flavor. But both terms (the desire of who is eating, the flavor of what is eaten) refer to something else. Taste is not casual or “accidental” (as it was then called, using a concept derived from the philosophy of Aristotle), but is linked to the “substance” of food: as such, it reveals its nature. Nor is the desire random, but rather it stems from a need of the body, and reveals it: therefore, “that is the





There was a constant exchange between everyday experiences and conceptual elaboration, cooking practices and scientific thinking



sign to which you should entrust your diet,” as stated in a text from the medical school of Salerno, the most famous in Europe in the Middle Ages. Only the last step is missing: the contact between subject and object, which occurs when a person ingests food, that can produce a pleasant or unpleasant sensation. If it is pleasant, it means that the encounter went well: that foodstuff is suitable to the needs of my body.

Within this tradition of thought, the “rules of health” were primarily dietary laws. To understand its meaning, we have to immerse ourselves in the culture of the ancient diet, which was inspired by the physics of Aristotle – once again – of classifying foods according to the four qualities (“cold” and “warm,” “wet” and “dry”) which were thought to be produced by the combination of the natural elements (earth, fire, water, air). The cooking process was assigned the task of eliminating the excesses, preparing and combining the products so that their qualities resulted in being as balanced as possible. The cook was acting mainly on two fronts: the cooking techniques and the methods of approach. For example, a product classified as “wet” was to be cooked without water, i.e., roasted; a “dry” product was better tempered with water, i.e., boiled. Simple ideas, which were ea-

sily passed on in the form of proverbs: the old chicken “makes good soup” and should not be roasted, because as animals age, they gradually lose moisture (the young pig, instead, is fine for roasting). The same rule held for the combinations: meat of a “hot” nature was served with a sauce, or combined with a food of the opposite nature.

It was not just the theoretical rules that counted in this game of combinations, but also experience and practice. The efficacy of the approaches and solutions was confirmed in their pleurableness. Who knows how many tests, how many experiments were made before being able to ensure that the melon (a fruit considered to be dangerous by its very wet and very cold nature) could be combined very well with ham (a salted meat, hot and dry in nature). And pears and cheese. And boiled meat with fruity mustard and green sauce. The proximity between dietetics and food was enhanced by the use of a language that encompassed both: the notions of hot, cold, wet, and dry were reflected in the body’s perception. There was a constant exchange between everyday experiences and conceptual elaboration, cooking practices and scientific thinking.

All this has an obvious limit. The validity of the

entire mechanism assumes that I will be able to listen to my body, its demands, and its reactions, without being influenced by external influences that could change the focus of my choices. But this is purely utopian. In the Middle Ages, as now and as always, food choices depend not only on the signals that our body sends us, but also and above all, on considerations that are extraneous to the nutritional act, such as social conventions, reasons of prestige and power (eating certain things because they are a status symbol), reasons of faith (certain beliefs may forbid certain foods), reasons of hunger or the market (preference for a food because it is cheaper or more convenient), of intemperance (why not), and so on. In a world like ours, dominated by food advertising, it is not difficult to understand how choices can be variously influenced by considerations and feelings unrelated to listening to the body. The picture painted by the medieval doctors is, therefore, an illusion, but by no means any less interesting (even now) than a proposal to consider ourselves as the primary protagonists of the food choices. There has to be an assumption of personal responsibility, joining with the instructions from the scientific world, in the notion of a “diet” that does not seem reductive

and punitive, but constructive and purposeful. Nutritional science today is no longer that of the Middle Ages. It no longer speaks the language of Aristotelian physics but that of chemistry, inaugurated by Lavoisier in the eighteenth century. The depth of analysis has increased, but so has the distance from the sensory evidence: who can recognize the taste of a carbohydrate, a glycoside, or a vitamin? However, dietetics continues to have a profound effect on our way of approaching food: for example, there is a clear relationship between the discovery of vitamins (twentieth century) and the predilection, so typical today, for raw or lightly cooked food (whereas up until the nineteenth century, raw and undercooked foods were considered in an absolutely negative sense). The alliance between gastronomy and dietetics seems to be a permanent given throughout history. The rules of health continue to be, first and foremost, dietary laws, and the wise dietician does not hesitate to recognize that the pursuit of pleasure is perfectly compatible with the needs of health.

*Massimo Montanari is Professor of Medieval History and Food History at the University of Bologna and directs the European Masters in History and Culture of Food*

# EAT YOUR VEGETABLES

FOR HEALTH AND THE ENVIRONMENT

BY DANIELLE NIERENBERG  
FOOD TANK CO-FOUNDER



The key need  
is for balanced diets

Parents all over the world have been telling kids to eat their vegetables for... well, since forever.

Vegetables are not only nutritious, they also make starchy staple crops – maize, wheat, rice, cassava, and other grains – taste good.

And they can be an important way to protect the environment, preserve biodiversity, and raise incomes.

Unfortunately, most research institutes and donors tend to focus on calories rather than nutrients. Starchy staple crops receive the bulk of investment and research dollars.

Over the last 30 years, the food output of sub-Saharan Africa, Asia, Latin America – and North America – has become more focused on raw commodities, and less on more nutrient-rich crops such as leguminous grains and vegetables. And people in the industrialized and the developing

world alike have diets high in carbohydrates. In many countries, more than 70 percent of diets now consist of just one staple.

This over-emphasis on staples leads to higher rates of obesity, hypertension, type 2 diabetes, and other chronic health problems.

According to a recent report by the Barilla Center for Food & Nutrition (BCFN), *Nutrition & Well-Being for Healthy Living*, vegetable consumption can have a preventive effect against cardiovascular disease, helping prove that food can often be the best medicine.

In addition, vegetable production can be one of the most sustainable and affordable ways of alleviating micronutrient deficiencies among the poor.

Often referred to as hidden hunger, micronutrient deficiencies – including lack of Vitamin A, iron, and iodine – affect some 1 billion pe-

ople worldwide. This can lead to poor mental and physical development, especially among children, and cause poor performance at work and in school, further crippling communities already facing poverty and other health problems. “The key need is for balanced diets,” according to AVRDC-The World Vegetable Center Director General Dyno Keatinge. “Vegetables are our best source of the vitamins, micronutrients, and fiber the human body requires for health. They add much-needed nutritional diversity to diets.”

*But vegetables not only help improve nutrition, they can also help farmers adapt to and mitigate climate change.*

According to the BCFN’s Double Pyramid, vegetables, along with grains and fruit, should be at the base of our diets to increase health and protect the environment. Vegetables are less ri-

sk-prone to drought than staple crops because they typically have shorter growing times. And they can help maximize scarce water supplies and soil nutrients. Indigenous vegetable breeds can also help restore cultural traditions. In sub-Saharan Africa, Slow Food International is working with young farmers – and eaters – to reignite a taste for indigenous vegetables.

These vegetables tend to be rich in micronutrients and resistant to pests, disease, drought, and high temperatures.

And growing vegetables is one of the most important ways for small-scale farmers to generate income on and off the farm.

Vegetables are not only a key ingredient in healthy diets, they can also improve both economic and environmental sustainability in rich and poor countries, helping nourish people and the planet alike.

COLUMN

# APPETITE

“I want to eat healthier but I’m not able to”: according to the first Censis/Coldiretti report, this is the statement that best describes the frustration at the table of 37% of Italians. A share which has now surpassed that of those (33%) who, instead, declare to follow a balanced diet because they believe that proper nutrition is one of the key factors for physical and mental health. We are in the era of “food polytheism,” which encourages people to eat everything, without any taboos, preferring the “subjective” aspect of their relationship with food.  
So which way do you follow?

BY **ELISA BARBERIS**

## LET YOURSELF BE GUIDED. I FEEL FOOD

Available at Apple stores for euro 1.79 it is a complete guide to healthy eating; its title hints at a famous song by James Brown and, in practice, it is concerned with providing valuable advice on how to buy, prepare, and store food safely. At your fingertips is a database with nutritional information about 760 food types, the ability to quickly and easily calculate the daily amount of calories and nutrients (including minerals and vitamins), and a quiz with 200 questions to test your knowledge. Do you think you know everything about what you eat?

FOODLY is also ready to put you to the test: three levels of a game to learn more about the resources we consume every day when we open the refrigerator.

## THE HI-TECH ASSISTANT

It takes perseverance to maintain a trim figure and it is easy to fall into temptation when you are always in a hurry. If you need an “assistant” to monitor you, MÉTADIETA (euro 4.99) is for you. When you first start, you just set the parameters related to your height, weight, age, and eating habits. Then you choose the type of diet you want to follow: for each type of diet, it offers a description of the recommended foods, those that should be avoided, and the relationship to observe between lipid, protein, and carbohydrate foods. Then, through a detailed photo database, all you need to do is accurately report what you eat. But as you know, staying in shape is not just about losing weight: proper nutrition must be accompanied by a healthy sport or exercise activity. That is why the developers have also provided the opportunity to include this in the calculation of the calorie intake that your body requires every day.



© Nicole Genoni / Istituto Italiano di Fotografia - “Di che pasta sei fatto?”

## DIET BECOMES SOCIAL

There are those who stick the specialist’s weekly plan onto the fridge, but most have already discovered FOODZY technology, the platform that generates statistics on what we swallow - at the office cafeteria, the pub, and the family dinner and that allows you to keep an eye on the amount of energy burned in real time. Then the “social” component must be added: comparisons with friends about who drinks more beer on the weekend or who is hungrier for pizza.

## A COMMUNITY OF ADVICE

And if you do not trust the numbers, but prefer advice that is more “human,” for those who own an iPhone or an iPad, Massive Health has developed an app called THE EATERY that puts an entire community into a network that you can consult for suggestions. Simply take a picture of the dish cooked or served at a

restaurant, give it a rating, and then wait to see if the evaluation of other users is the same: the lower it is, the more discouraged you will be to continue the meal. And by sharing concerns, experiences, and progress made, it will be easier to follow one’s own food performances and learn where the places offering the healthiest dishes are.

## VEG-MANIA

That the country of steak, sausage, eel stew and pasta with sardines is changing its eating habits at the table is a fact. 10% of the population has already ruled out meat and fish completely, so that now Italy is second only to India.

The new mantra is raw food cuisine and for those who want to eliminate all foods of animal origin from their diet, there is RAW VEGAN (79 cents in the Apple and Android virtual stores), ready to provide you with suggestions and ideas.

## FOOD FOR HEALTH

PARADOXES OF FOOD AND HEALTHY LIFESTYLES IN A CHANGING SOCIETY

APRIL 2013

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Barilla**

*il tuo cibo, la tua terra*  
people, environment, science, economy

## The BCFN research areas

### Food for All

Access to food and malnutrition: the BCFN reflects on how to promote a better food system on a global scale and how to enable a more equitable distribution of food resources, encourage social welfare, and reduce the impact on the environment.

### Food for Health

The relationship and the delicate balance between diet and health: the BCFN has collected the recommendations of scientific institutions around the world and of the most qualified experts, and explains its proposals to facilitate the adoption of a proper lifestyle and a healthy diet.

### Food for Sustainable Growth

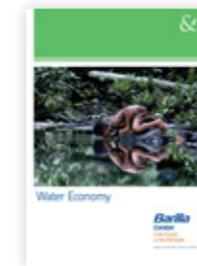
An analysis of the food chain aimed at signaling the existing weaknesses and assessing the environmental impact of production and consumption. The BCFN proposes good practices and recommends personal and collective lifestyles that are able to have a positive impact on the environment and resources.

### Food for Culture

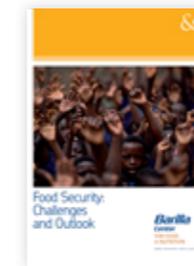
The relationship between mankind and food, its stages throughout history, and an analysis of the current and future situation. The role of the Mediterranean diet in the past and, according to the BCFN and major scientific studies, the current important task: rebalancing the relationship of people with their food.

## BCFN publications

2011



Water economy



Food Security:  
Challenges and  
Outlook



Measuring well-being and its sustainability:  
The 2011 BCFN Index



Beyond GMOs.  
Biotechnology  
in the agri-food sector



2011 Double Pyramid:  
Healthy food for people,  
sustainable for the planet



Longevity and well-being:  
the role of diet



Food prices and market volatility:  
the variables involved



Obesity and malnutrition:  
the paradox of food for our children

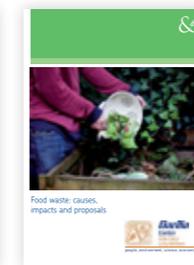


New models for sustainable agriculture

2012



Nutrition & well-being for healthy living



Food waste: causes, impacts and proposals



Obesity: the impacts on public health and society



Sustainable agriculture and climate change



Double Pyramid 2012: enabling sustainable food choices



Eating in 2030: trends and perspectives

All the BCFN publications are available on [www.barillacfn.com](http://www.barillacfn.com)



Fondazione Barilla

il tuo cibo, la tua terra

DEADLINE  
July 1, 2013



# YOUNG BRIGHT IDEAS WANTED TO FEED OUR PLANET

If you're a student and/or researcher, under 30 years and you think out of the box, sign up to **YES! Young Earth Solutions** of the Barilla Center for Food & Nutrition (BCFN).

## THE CHALLENGE?

Reduce our environmental impact, guaranteeing health and access to food for all.

REGISTER NOW TO PARTICIPATE  
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