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My Food, our Food

Introduction

Honourable Rector, Mr Smid, members of the Executive Board of Wageningen University and Research centre, ladies and gentlemen.

Health is a great asset. Healthy nutrition, in terms of quantity and composition, is essential for the good health of both the individual consumer and society as a whole.

Every day, the media, newspapers, books and films report about malnutrition and over-nutrition, health and illness, food production and food processing. The film "Supersize Me" illustrates the direct relationship between our nutritional pattern and health. The main character in the film ate only fast food and soon developed serious problems with his body weight and his fat and glucose metabolism. Recently, the film "Our Daily Bread" illuminated high-tech agriculture and industrial food production in such a chilling fashion that it causes viewers to lose their appetite. The book "The Omnivore's Dilemma" describes in an appealing fashion the lack of transparency in the food chain and the dilemmas for the consumer who wants to be responsible and aware. Not to mention diet rages, cookbooks, functional foods, and food commercials. Our food is more than a collection of products on the market; it affects us personally and is an essential precondition for life, embedded in social and cultural structures. This is the reason for the title of this presentation: My Food, Our Food.

The Wageningen approach

Levels

This scheme is derived from the new strategic plan of Wageningen. The left column represents the "potential of nature", the right our society and "quality of life". From the nutritional point of view, the left column refers to edible plants and animals, the right column to individuals, households and society.

For the remainder of my speech, it will be useful to extract the health issues from each column. That results in the health column with (from below to above) the levels of mechanism – individual – food product – public health and policy.

For simplicity, I will reduce this to three levels: "individual", "food" and "society".

I will illustrate these three levels based on the example of "French fries". Not just because I like them very much, preferably with mayonnaise. But because they can serve as an example, that helps to illustrate the levels and to analyse the debate on these levels.

Illustration "French fries"

The level of the individual is concerned with, for example, the effects of the fat in French fries on blood lipids and heart disease. But also questions like: does it matter what genes for heart disease are running in my family?

The level of the food is obviously related to food technology and the properties of products. But it also concerns the food choice of the consumer. We eat French fries when we become hungry while shopping in the city, and then inhale a nice smell originating from the snack bar on the corner.

At the level of the society, stakeholders come into play. How do food industry and health policy shape our lifestyle? The number of fast food outlets for French fries has grown explosively the past decades. On the other hand, which processes did contribute to the increased use of healthy frying oils and abandoning of trans fatty acids?

Health

Before continuing, we must first provide a better definition of health. The World Health Organization defines health as "a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (WHO, 1948).

In the context of health promotion, health is seen as a "resource for living", and the conditions that are necessary for health are stressed. These concern not only food, but also shelter, education, income, a stable ecosystem, sustainable resources, social justice and equity (Ottawa Charter, 1986). Many are familiar concepts to Wageningen. Prevention is concerned with avoiding to "slide down", while health promotion is concerned with "climbing the mountain" towards better health. In both, the societal dimension is essential: the role of communities, coherent policy, public-private partnerships and societal infrastructures (Bangkok Charter, 2005).

Now we return to the three levels. All three have the ambition and the potential to contribute to health. For each level, I will first describe the principles or ambitions, and then map out the tensions and debate.

Individual level

Principle.

At the individual level, our ambition is to provide our body with an optimum composition of energy, fats, vitamins, minerals, etc. No shortages, no overweight, we want our bodies to function properly. We also want to participate in society as we age by delaying limitations caused by diabetes, cardiovascular disease, mental decline or cancer as long as possible. Human studies and nutrigenomics provide essential and new evidence. Taken together, the scientific evidence in this field forms the basis for the new Dietary Guidelines, published last December by the

Dutch Health Council.

Debate individual –population

But there is a debate on the health of the individual versus public health as a whole. This is called the prevention paradox.

As an example, I will use the salt that you put on the French fries. For people with high blood pressure, it is beneficial to limit salt intake. They could take a very drastic approach by eating low-sodium bread, abandon the salt shaker from the table, etc. But from the viewpoint of public health, it is much better if everyone would reduce their salt intake just a little bit, because that has a larger impact on population health.

Moreover, around 70% of our salt intake is from processed food. Instead of banning the salt shaker, wouldn't we achieve much more if the food manufacturers reduced the salt content in processed food? Of course, individuals have their own responsibility for health, the government has responsibility for public health as a whole, and the free market can sell low-salt foods. But what is the optimal approach to various nutrition problems and how to achieve that?

Food - level

Principle.

The food level obviously involves food composition, food safety, shelf life etc. For the consumer, sensory aspects, convenience and price also play a role. Health issues are becoming more and more important. By means of food technology and consumer research, we are striving for food products, which can help to "make the healthy choice the easy choice".

Debate on healthy products –food pattern – lifestyle.

However, the new Nutritional Guidelines are not concerned with specific products, but with the dietary pattern as a whole: more fruit and vegetables, more bread and grain products, and fewer products that are rich in fat and energy or poor in nutrients.

What do these guidelines mean for the shopping basket of the consumer? The shelves in the supermarkets contain thousands of foods and most of our food choices take place subconsciously. How to make a healthy choice?

Food industry, retail and commerce enter the arena with enriched products, functional foods, health claims and food logos. But how much does an isolated food product contribute to a healthy dietary pattern? When does this oversimplification lead to an undesirable food pattern or to an undesirable direction in product development?

Besides the shopping basket, other aspects are also important for health such as smoking, alcohol consumption, exercise, sports and relaxation. Moreover, a deliberate choice of food is not only concerned with health: Ethical aspects also play a role, such as animal welfare and sustainability, along with aspects such as enjoyment and indulgence. For the consumer, emotional and situational factors play an important role, and there is tension between the actual well-being and the lifestyle changes that are perhaps necessary to maintain health in the long term.

Society level

Principle.

Individuals choose their food within the possibilities offered by society. The ambitions for a healthy society relate to social justice and equity, a stable ecosystem and sustainable resources (Ottawa Charter). Effective policies require clear choices and interaction with stakeholders in agriculture, health and education.

Debate on policy and practice.

But there is a debate between policy and practice. Despite equal access to food, people from disadvantaged neighbourhoods are less healthy than those living in more prosperous ones. On top of income and lifestyle factors, the food pattern plays an important role.

But it is not easy to improve dietary habits. The British television cook Jamie Oliver has put healthy food for school-aged children on the agenda in England. But in some areas, this led to protests from parents who wanted to maintain the traditional school meals. How can food policies be developed in such a way that they can be implemented smoothly in practice?

Moreover, both health policy and food industry shape our society and the environment. The new Dutch cabinet has formulated an interesting prevention paragraph, and we are eager to contribute our expertise on diet, health and lifestyle. The past decades, preventive policies, legislation and social pressure have altered attitudes towards cigarettes and alcohol. Now, the food sector must take further responsibility for public health and sustainability.

Debate – Dietary Guidelines

How do this three level-model work out in practice? Let us take the recent Dietary Guidelines as an example. This advice is formulated by experts in the field. But many issues still arise, if we want individuals and society to take full benefit from this expertise.

First, it is of utmost importance to involve policymakers and stakeholders to learn about the practical possibilities and constraints regarding the guidelines: consumers, retailers and manufacturers; medical faculties, care providers, insurance companies and the government are involved. That process is ongoing in society. A suitable agenda for education and research requires a systematic approach, efficient organisation and making the correct

decisions. This is a science and art in itself. For the time being, questions arise at all levels. To mention a few:

Society: What is a sufficient amount of evidence to formulate guidelines? Do mass media approaches help to communicate the guidelines, or should tailor-made advice be preferred? How to orchestrate agriculture, food industry, retailers and health promotion?

Food Products: How to convert the generic guidelines to specific foods? Are logos on our foods useful instruments? How can we develop healthier foods? How can people learn to choose a healthy food pattern?

Individual: If people eat according to the guidelines, does this improve their health? Is orange juice equally healthy as an orange? What key regulating processes are affected at the molecular level?

Dietary guidelines and food patterns address "Our Food". They provide just one example to illustrate how the levels of the health column can be used to structure the debate and to develop ideas for research programmes. Everyday, the media provide issues for the debate. Opposite to generic dietary guidelines and food patterns for the population as a whole, there is a debate starting from the level of the individual: This concerns personal nutrition advice, tailor made to our genetic constitution. In a sense, this extreme represents "My Food". Between these two complementary approaches, we see society struggling with our advancing knowledge: food industry and retail introduce logos on food to influence healthy food choice and increase their market share; health promoters take initiatives to develop healthy schools for our children; and at the same time, societal interest in food production for a sustainable future of our planet is raising.

Coping with such important issues requires a long term vision and strategy. I hope the framework I presented helps to structure discussions on that. Let's now turn to education and research.

Education and research

Strategic plan

In its strategic plan for the next four year (2007 – 2010), Wageningen prioritises nutrition, health and behaviour as a core theme. I have pointed out that it makes sense to address this at the level of individual, food and society. How can we in Wageningen effectively deal with the current demands of society, at each of these levels? And how can we structure education and research in such a way that the next generation of students can answer the questions of the future?

Research

Food has a major impact on society, on individual health and public health and vice versa. This places high demands and responsibilities on the research. Minor changes in the molecular interactions, food composition or in food habits can have major consequences.

This requires fundamental research. We must explore creative ideas under controlled conditions, using new technologies like nutrigenomics and bionanotechnology, and using new approaches in stakeholder involvement and policy development. Motivated researchers must have the opportunity to conduct excellent research on the cutting edge of the individual, food and society.

But the debate not only requires in-depth fundamental science. We also need strategies that call rigid standpoints and interests into question. Participatory action research and stakeholder involvement can help to build bridges with consumers, the health sector, the agro-food sector and policymakers.

Education

In education, we have to teach our students to generate and evaluate scientific evidence. This requires in-depth knowledge on food, health and society, together with concepts, methods, technologies, etc. They must study the textbooks, the scientific literature and participate in ongoing research projects. That requires researchers committed to both education and training of our students.

But education also embodies personal development in a broader sense. We have to challenge our students to take their own personal position in the societal debate on diet, health and behaviour, based on solid arguments. This will help to sharpen their minds to interact effectively with policymakers and stakeholders during their career. How can this be realised? Science and society meet already in research. This could be extended to the lecture hall. Stakeholders and researchers must be challenged to take public responsibility, and be prepared to reflect critically on their principles, their objectives and their practices. This debate can motivate students to master fundamental sciences, integrating sciences, or both, depending on their competences. In any case, our graduates must be inspired to make a difference. We must provide the high quality seeds and proper growth conditions for that. This is our academic ambition.

In closing

To conclude, by focusing on the theme of nutrition, health and behaviour, Wageningen has placed itself as a vital and learning organization in the midst of the societal debate. But this is only a beginning. There are innumerable challenges for research and education, in both content and methodology. But the ultimate objective is clear: to ensure a healthy diet and to contribute to the quality of life of people, throughout their lifespan, in a healthy and sustainable society.

I thank you for your attention. And I would now like to hand over to the chairman.
