

# A Critical History of Nutrition Education in the Netherlands (1900 – 2000)

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SHIFTING RESPONSIBILITIES AND CONFLICTING  
INTERESTS



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Suzanne van der Meijden,

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## Abstract

The goal of this research project was to find out which different stakeholders are now or have been in any way involved in nutrition education, and if their involvement has led to compromises regarding nutritional guidelines. To this end, the development of nutrition education in the Netherlands throughout the 20<sup>th</sup> century has been investigated by identifying conflicts of interests and analyzing how these led key players in the field to make a series of concessions.

It was found that throughout the 20<sup>th</sup> century there has been a struggle in deciding which party should be responsible for the health of the Dutch population. The government was only willing to fund nutrition education during wartime and therefore nutrition educators were forced to ask the food industry for funds. During the 1980s educators found that consumers were eager to take personal responsibility, and therefore were no longer interested in strict guidelines. Unfortunately, in the 1990s it became clear that consumers were unable to educate themselves, because scientists, government, media, food industry and educators were all conveying a different message. This has resulted in the authority crisis the Dutch find themselves in today, where they no longer know what to eat and whom to trust.

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## Introduction

On May 6<sup>th</sup> 2015, the World Health Organization revealed an alarming statistic: in 2030, 89% of Europe's population will be overweight<sup>1</sup>. To date, thousands of dieting books have been written, claiming to have solved the problem with some magical diet. The solutions presented are diverse and often contradict one another. Some diets recommend eating lots of bread and dairy, other claim you should never eat either of those. Some diets claim that you can survive on only meat, others are entirely vegetarian. The list goes on.

In this research, it will be shown that these many solutions might actually be the problem causing the obesity epidemic, and not the solution. It will be explained how the world ended up in a situation where there is more knowledge than ever, yet health problems among the population only seem to have worsened. Nutrition educators are supposed to provide the public with guidelines on how to eat, ensuring the health of the public. Therefore to understand how this unfortunate situation came into being, understanding the history of nutrition education is crucial.

Worldwide, a lot of groundbreaking works have already been written on this topic. In *Food Politics: How the Food Industry Influences Nutrition and Health*, Nestle focuses on nutrition education in America. She argues that nutrition is a political issue. According to her, people are confused on what to eat because many guidelines are provided by the food industry – instead by nutritionists. Moreover, she argues that nutritional research is subject to interpretations and therefore dietary guidelines necessarily are political compromises between what science tells us and what is good for the food industry sponsoring the research. Finally, the government organization that devises the American guidelines is the United States Department of Agriculture, which is primarily concerned with agriculture and not with health. Nestle's arguments are for a large part confirmed by Harvard nutritionist Walter Willet, author of *Eat, Drink and Be Healthy*. In this work, he proposes an alternative model for nutrition education and attacks the current educational model in America. In particular, he

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<sup>1</sup> Van Os, S. "Waarom de Obesitas Epidemie ons Nederlanders zal overslaan". 7 May 2015. *HP de Tijd*. Found on: <http://www.hpdetijd.nl/2015-05-07/waarom-de-obesitas-epidemie-ons-nederlanders-zal-overslaan/> (accessed 02-06-2015).

argues that the flaws in nutrition education originate from its makers being interested in other things than people's health, such as agriculture or profit.<sup>2</sup>

Histories of nutrition pertaining to other countries have been written as well. However, no in depth work on the history of nutrition education in the Netherlands has been written. What has been written is either very specific, such as the dissertation of Huijnen on vitamin research in the Netherlands from 1918-1945, or too broad, such as a series describing all technological developments of the 20<sup>th</sup> century in the Netherlands.<sup>3</sup>

This work adds value to the existing literature because it provides the reader with an in-depth analysis of 20<sup>th</sup> century nutrition education in the Netherlands. The goal is to identify the various stakeholders in nutrition education and describe how their involvement may have influenced nutrition education. Ultimately, this work offers transparency. It will be found that throughout the history of nutrition education, educators were often forced to make concessions. Another key finding is that views on who is responsible for the health of the Dutch population have changed. There has been a constant struggle between the government and health educators, and over time it was decided that scientists, the food industry and the media should accept their responsibility as well.

This work does not describe the history of the Netherlands of the 20<sup>th</sup> century in detail, nor does it offer the reader nutritional advice. Instead, it allows the reader to decide for him or herself which sources of information on nutrition s/he finds reliable. Moreover, understanding why nutrition educators have failed to be effective over the years, could provide us with some valuable insights. Either it could be decided what went wrong and how it should be fixed, or it might be concluded that nutrition education is fundamentally flawed and that education is not the solution to the obesity epidemic after all.

The setup of this work is chronological. There are four chapters, each of which emphasizes different developments. Some chapters are more focused on the exact content of nutrition education, whereas others mainly focus on social developments.

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<sup>2</sup> Nestle, M. *Food Politics: How the Industry Influences Nutrition and Health*. 2007. California: University of California Press. 29-30, 32, 41, 51, 53, 59. Willet, W.; Skerrett, P.J. *Eat, Drink and Be Healthy*. 2005. New York: Free Press. 21.

<sup>3</sup> Smith, D.F. *Nutrition in Britain: Science, Scientists and Politics in the Twentieth Century*. 1997. New York: Routledge. Huijnen, P. 2011. *De Belofte van Vitamines: Voedingsonderzoek tussen Universiteit, Industrie en Overheid 1918-1945*. Hilversum: Uitgeverij Verloren. Schot, J.W.; Lintsen, H.W.; Rip, A.; Albert de la Bruhèze, A.A. *Techniek in Nederland in de Twintigste Eeuw III: Landbouw Voeding*. 2000. Zutphen: Walburg Pers.

Chapter I traces the origins of nutrition education back to WWI and WWII. Before WWI, nutritional guidelines were mainly focused on the quantity of food, and not as much on the quality. The outbreak of various diseases in WWI, however, highlighted the importance of the quality of food. This observation resulted in the foundation of the first institute that focused on nutrition education. After the war, however, the Dutch government no longer felt responsible for nutrition education. As a result, educators struggled to raise funds for their institute. Only when the threat of WWII emerged, the government decided to reinvest in nutrition education. The goal of chapter I is to show the reader that the reasons for initiating nutritional education were not merely idealistic, but were for a large part fueled by other interests. Scientists wanted to prove their usefulness to society, the government prepared for war and the food industry aimed to sell their products. The chapter focuses mainly on the social background against which nutrition education emerged and not as much on the education itself, which will be discussed more extensively in chapter II.

Chapter II centers on the introduction of the Wheel of Five. Especially the content of the education will be examined in more detail. When the times of scarcity were over, it became possible for educators to strive for the healthiest nutrition possible. However, retaining the interest of the Dutch housewives turned out to be a challenge. For this reason, it was decided to introduce the Wheel of Five. The idea was that this Wheel allowed educators to convey their nutritional guidelines in such a way that they were actually understood. The conveyed nutritional guidelines had some remarkable features, some of which seemed to hint at a conflict of interests. The goal of this chapter is to show the reader that concessions were done in designing nutrition education from roughly 1950 until 1975: compromises had to be made between the educators, the food industry and the Dutch people.

Chapter III is less focused on the content of nutritional advice, and more on the society it was developed in. First, it is shown that the effects of the Wheel of Five were not as educators had expected: although more and more people were familiar with the Wheel of Five and its goals, eating habits had worsened. Moreover, educators were receiving criticism on their work. These developments resulted in the introduction of a new educational tool: the Dinner Wheel. This new tool was again received with criticism. It turned out that the public was no longer looking for strict guidelines, but desired personal responsibility instead. The Dinner Wheel was therefore replaced by the Nutrition Index, which allowed people to make their own decisions. The goal of this chapter is to show how the individualization of society



led educators to change their advice. Therefore, the emphasis of this chapter is not on the exact content of nutritional advice, but on social developments.

Finally, Chapter IV will focus on the shift from personal responsibility of the individual consumer to the social responsibility of companies, the government, scientists and the media. In the 1990s, consumers were becoming increasingly distrustful towards various organizations, including nutrition educators. To regain their trust, educators reinstated the familiar Wheel of Five. By reintroducing a familiar tool, nutrition educators hoped to regain the trust they once had. Another effect of the distrust of consumers was that the personal responsibility of the individual consumer was reconsidered. The food industry, the government, scientists and educators were all taken to be responsible for the health of the Dutch population. The goal of this chapter is to explain how the discussion culture as described in chapter III escalated to the full authority crisis that we still live in today.

After reading this work, you will have had a peek behind the scenes of nutrition education, allowing you to decide for yourself what to eat and whom to trust.

## I. The origins of nutrition education in the Netherlands: 1900 - 1950

This chapter serves to describe how the origins of nutrition education can be traced back to WWI and WWII. Section I.1 is on the situation prior and during WWI, section I.2 is used to describe the situation after WWI and finally section I.3 briefly describes how nutrition education changed after WWII.

Before WWI, nutritional guidelines were mainly focused on the quantity of food, and not as much on its quality. The outbreak of various diseases in WWI, however, highlighted the importance of the quality of food. It will be shown in section I.1 that it were these circumstances that led to the commencement of nutrition education in the Netherlands.

After WWI had ended, the government no longer felt the responsibility to fund nutrition education. As a result, educators struggled to raise funds for their work. These educators were mainly scientists attempting to prove their usefulness to society by showing how their findings could be used in daily life. In other words, in section I.2 it will become clear that those who have something to gain from nutrition education tend to take part in it. This theory is further strengthened later in this section, when it is shown that only when the threat of WWII emerged, the government decided to reinvest in nutrition education.

The final section of this chapter is on nutrition education after WWII. In section 1.3, it is described how nutrition education took a new form after the Second World War. Educators no longer had to work with a limited amount of resources, but had to help people make the right decisions from an abundance of choices.

The goal of this chapter is to show the reader that the reasons for initiating nutritional education were not merely idealistic, but were for a large part fueled by scientists trying to prove their usefulness, the government preparing for war, and the food industry trying to sell their products. The chapter focusses mainly on the social background against which nutrition education emerged and not as much on the exact content of the education or the methods used by the educators, which will be emphasized more extensively in later chapters.

### I.1 WWI

At the start of the 20<sup>th</sup> century, it was commonly accepted that nutrition research was almost completed. It was known that food consisted of several elements and that the ratio among

those components differed in various types of foods, resulting in different caloric values. The sole task of scientists was to determine the optimal number of calories per person.<sup>4</sup>

The First World War proved this idea to be wrong. Although enough food in terms of calories was supplied during WWI, food related disease manifested itself nonetheless. The replacement of butter by margarine resulted in eye problems throughout Denmark, while scurvy was severely weakening military forces. It was discovered that these problems could be traced back to a lack of so-called vitamins, thus showing the inadequacy of conventional knowledge on nutrition.<sup>5</sup>

The observations catalyzed food research for years to come, opening up a new world of vitamin research. However, it turned out that the new insights were largely ignored by the Dutch population. For example, the Dutch were very keen on potatoes, which scientists considered to be inferior to brown rice. Nonetheless, brown rice was hardly consumed. According to journalist Pierre Henri Ritter, the Dutch would rather starve than to eat anything else than their beloved potato.<sup>6</sup>

Scientists felt responsible for communicating their insights to the public, but were not sure how to do so. Evert Cornelis van Leersum, a pharmacology professor from Leiden University, was the first to take action after WWI. He wanted to continue nutritional research and inform the public about healthy eating in a specialized institute: the Dutch Institute for Nutrition of the Public (DINP)<sup>7</sup>. Due to the poor economic situation, the food industry was unable to support his pursuit, leading him to turn to the Dutch government. The government was not convinced that nutritional education was a task for them - especially since there was no war. Moreover, the Health Council had already been in place since 1902 with the goal of ensuring the health of the Dutch population<sup>8</sup>. Nevertheless, Van Leersum managed to get some funds from the government, which, combined with several small subsidies, allowed him to found his institute in 1919.<sup>9</sup>

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<sup>4</sup> Huijnen, P. 2011. *De Belofte van Vitamines: Voedingsonderzoek tussen Universiteit, Industrie en Overheid 1918-1945*. Hilversum: Uitgeverij Verloren. 31.

<sup>5</sup> Huijnen, "Belofte", 24, 31-32.

<sup>6</sup> Huijnen, "Belofte", 24, 32, 35.

<sup>7</sup> Dutch Institute for Nutrition of the Public is a personal translation of 'Nederlands Instituut voor Volksvoeding'.

<sup>8</sup> Health Council is a personal translation of the Dutch "Gezondheidsraad".

<sup>9</sup> Huijnen, "Belofte", 24-25, 43-44, 48, 117.

## Sponsored research

The food industry did not make use of the research facilities the DINP offered. Instead, many companies created their own labs, because this allowed them to keep a close eye on desirable results, to make sure media coverage was positive and, finally, it could lead to new patents.<sup>10</sup>

These industry labs had ample funds, but lacked expertise. On the other hand, universities employed many talented scientists, but were on a limited budget. This situation led to the formation of various alliances among universities and companies. Of course, these firms always had primarily their own interest in mind: the research should set them apart from the competition. These industry-university collaborations therefore resulted in an entirely new set of difficulties for university scientists, as they now had to be concerned with patents, integrity and conflict of interests. This situation was difficult to combine with the image of an independent and selfless science, which universities held so dearly.<sup>11</sup>

Nonetheless, collaborating with the industry did provide an additional benefit: it allowed scientists to prove their usefulness to the Dutch nation. It was taken to be the moral duty of scientists to meet the needs of industry and thereby the Dutch people. A great example of a scientist devoting himself to the public cause was the DINP founder Van Leersum. The desire to bring science and the public together was shared with a larger group of scientists, who aimed to make themselves more useful to the public. This trend towards solving more practical issues instead those purely aimed to satisfy the curiosity of the scientist, started around 1900 and is still developing today.<sup>12</sup>

## I.2 After WWI

Shortly after the DINP was founded, an economic crisis struck the Netherlands. As a result, the Dutch government withdrew from the economy, resulting in large budget cuts. It did not take long for the government to cancel all subsidies towards the DINP, forcing the institute to close in 1933. The reasoning was that the only task of the government was to make sure there was enough food and therefore did not need to be concerned with the details of proper nutrition.<sup>13</sup>

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<sup>10</sup> Huijnen, “Belofte”, 25, 58.

<sup>11</sup> Huijnen, “Belofte”, 27-28, 147-149.

<sup>12</sup> Theunissen, B. “Zuivere wetenschap en praktisch nut: visies op de maatschappelijke betekenis van wetenschappelijk onderzoek rond 1900”. *Gewina* 17: 141-144. 142. Huijnen, “Belofte”, 25, 148.

<sup>13</sup> Huijnen, “Belofte”, 25, 50-52, 133.

The government's view changed when the threat of WWII emerged. Since The Netherlands aimed to be neutral during the war, they had to become self-sufficient. Food policy was an important item on the political agenda once more, resulting in the reinstatement of the DINP by chemist Jansen in 1938. It is relevant to stress that it was not the economic crisis and the resulting nutritional problems among the Dutch population that fueled this renewed interest in nutrition, but the threat of WWII instead.<sup>14</sup>

Additionally, the Foundation for Scientific Education about Nutrition was created<sup>15</sup>. In this foundation, several organizations from both the government and the food industry worked together to supply scientific nutrition education to the public via *The Netherlands Journal for Nutrition*<sup>16</sup>. Needless to say, different organizations had different reasons for being involved.<sup>17</sup>

According to the Health Council, these organizations were not able to meet the acute demand of society. Especially the Dutch capitulation in May 1940 led to an immediate need to work out a nutritional policy. For that reason, the Food Council was brought to life<sup>18</sup>. The main tasks of this council were to create guidelines, to perform research and to inform the public.<sup>19</sup>

This final task was too demanding for the Food Council by itself, which led to the creation of a separate committee. In January 1941, general practitioner Den Hartog became director of the Food Council's Information Bureau (FCIB)<sup>20</sup>. The FCIB realized that during the war, it was impossible to provide comprehensive nutritional advice as people had to limit themselves to the resources available. Therefore, the FCIB aimed to inform housewives about the healthiest way to prepare meals with limited means. They did so using various channels, such as flyers, radio, cooking lessons and expositions<sup>21</sup>.

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<sup>14</sup> Huijnen, "Belofte", 29, 116, 122.

<sup>15</sup> This is a personal translation of "Stichting voor Wetenschappelijke Voorlichting op Voedinggebied".

<sup>16</sup> This is the translation chosen by the organization itself. The Dutch name for the journal is "Voeding".

<sup>17</sup> Huijnen, "Belofte", 117-118.

<sup>18</sup> Food Council is a personal translation of "Voedingsraad".

<sup>19</sup> Anonymus. *Verlagen en Mededeelingen betreffende de Volksgezondheid: 1941*. The Hague: Rijksuitgeverij dienst van de Nederlandsche Staatscourant. 1141, 1143. Huijnen, "Belofte", 45, 126.

<sup>20</sup> Food Council's Information Bureau is a personal translation of "Voorlichtingsbureau van den Voedingsraad".

<sup>21</sup> Anonymus. *Verlagen en Mededeelingen betreffende de Volksgezondheid: 1947*. The Hague: Rijksuitgeverij dienst van de Nederlandsche Staatscourant. 512-513. Huijnen, "Belofte", 132. Anonymus, "Verslagen 1941", 1142.

### I.3 After WWII

In the aftermath of the Second World War, the Netherlands had to be rebuilt: bridges, roads, harbors and cities had been destroyed. This not only deregulated international trade, but also the internal economy. The Dutch government attempted to recover from this situation by introducing a welfare system, in which a free market was combined with a guided economy, focused on creating jobs, social security and collective welfare.<sup>22</sup>

Under these circumstances, the FCIB decided that they should also inform the general public on economical choices, not just on choices regarding health. Of course, products that improved the Dutch economy were not necessarily the foods that improved public health. Therefore, the FCIB decided to only support healthy products - other products would have to be promoted by companies themselves. Following this decision, the FCIB established contacts with the fish industry, gas- and electricity companies and food companies such as Unilever. The fish industry was responsible for providing funds, whereas the other companies provided the bureau with educational materials<sup>23</sup>.

In the new post-war setting, it became possible for the FCIB to provide the public with more extensive nutritional guidelines. However, while the information supply was intensified, interest was lost: the general public no longer had to worry about limited resources. It took a few years for the FCIB to regain the interest of the people, but in 1949 people were again requesting materials and seeking contact with the FCIB as they had before. The foundation attributes this to their increased publicity, as they had become a well-known organization<sup>24</sup>.

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<sup>22</sup> Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1948*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 805. Schuyt, C.J.M.; Taverne, E. 2000. *1950: Welvaart in zwart-wit*. The Hague: Sdu Uitgevers. 37, 41-42.

<sup>23</sup> *Verslagen en Mededelingen betreffende de Volksgezondheid: 1946*. The Hague: Rijksuitgeverij dienst van de Nederlandsche Staatscourant. 27, 31-32. Anonymus, "Verslagen 1948", 805. Schuyt, "Zwart Wit", 37.

<sup>24</sup> *Verslagen en Mededelingen betreffende de Volksgezondheid: 1951*. The Hague: Staatsdrukkerij en Uitgeversbedrijf. 77. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1950*. The Hague: Staatsdrukkerij en Uitgeversbedrijf. 313. Anonymus, "Verslagen 1948", 805. Anonymus, "Verslagen 1947", 512-513, 515.

## II: The Wheel of Five: 1950 - 1975

The previous chapter focused on the social background against which nutrition education was first developed. In this chapter, the content of the education and the tools used will be examined in more detail. In section II.1, the introduction of the Wheel of Five will be extensively discussed, followed by section II.2 which pays attention to the organizational structure behind nutrition education. Finally, in section II.3 the focus will be brought back to the content of education and how and why this content changed between 1953 and 1975.

When the times of scarcity were over, it became possible for educators to strive for the healthiest, most economic nutrition possible. Since retaining the interest of the Dutch housewives turned out to be a challenge, it was decided to create an educational tool. In section II.1, the development of this new tool, the Wheel of Five, will be extensively discussed. The idea was that this Wheel allowed the FCIB to convey their nutritional guidelines in such a way that they were actually understood. The conveyed nutritional guidelines had some remarkable features, some of which seemed to hint at a conflict of interest between the food industry and the FCIB.

Conflicts of this kind will become more apparent in section II.2. Here, difficulties the FCIB and FSEN faced will be highlighted. Both parties struggled with balancing their finances and their objectivity: they needed industry funds to operate, yet companies had different interests than public health.

Finally, in section II.3, it will be shown how the FCIB struggled with welfare diseases, such as tooth decay and obesity. Besides launching several campaigns to combat these health hazards, the content and lay-out of the Wheel of Five changed over the years, adjusting it to the nutritional difficulties of that time. Here too, the influence of the food industry was apparent in the content of the nutrition education.

The goal of this chapter is to show the reader that roughly from 1950 until 1975, compromises had to be made between the educators, the food industry and the Dutch people.

### II.1 A new educational tool

At the start of the 1950s, the FCIB had established itself as an authority on nutrition education. However, their goal - to promote the most healthy and economic eating habits among the Dutch people - was by no means achieved, mainly because most Dutch housewives

considered nutritional guidelines to be too complicated. This was due to the complexity of the guidelines, which consisted of tables filled with abstract terms, as depicted in figure 1. In other words, reaching all Dutch housewives necessitated a change.<sup>25</sup>

NORMEN												
Groep	Cal.	Eiwit		Vet	Koolh.	Ca	Fe	Vitamines				
		ppm	Del					A	B1	B2	PP fact.	C
		g	g	g	g	mg	mg	E.	mg	mg	mg	mg
Volwassenen	2600	35	35	65	415	1000	12	5000*	1,2	1,6	12	75
0—1 jaar	900	10	25	30	115	800	6	1500*	0,4	0,6	4	30
1—4 jaar	1200	10	30	40	160	800	7	2000*	0,6	0,9	6	35
4—7 jaar	1500	20	30	45	210	800	8	2500*	0,8	1,2	8	50
7—9 jaar	1900	25	35	55	280	800	10	3500*	1,0	1,5	10	60
9—14 jaar	2600	30	45	80	375	1200	12	4500*	1,2	1,8	12	75
14—20 jaar	3100	35	55	95	460	1200	15	5000*	1,5	2,0	15	90
Matige arbeid	3250	35	35	100	495	1000	12	5000*	1,2	1,8	15	75
Zware arbeid	3900	50	40	125	585	1000	12	5000*	1,5	1,8	18	75
Zeer zware arbeid	4600	60	50	150	670	1000	12	5000*	2,0	1,8	18	75
Zwangeren en zogenden	3000	40	60	90	435	2000	15	7000*	1,5	3,0	18	125

\* 1/3 vitamine A

1: A table showing how many grams one needed of a particular nutrient. Den Hartog, C. “De Voedingsmiddelen Tabel”. (1949). *Voeding* 10 (6): 253-260. 253.

### The Basic Seven

After WWII, the United States expanded their political and economic efforts to a global scale to retain their economic prosperity. As a result, the FCIB came into contact with the United States Department of Agriculture (USDA) and the FCIB, which allowed director Den Hartog to travel to the United States. The goal was to come up with a solution for the disinterest of the Dutch housewives in nutrition education.<sup>26</sup>

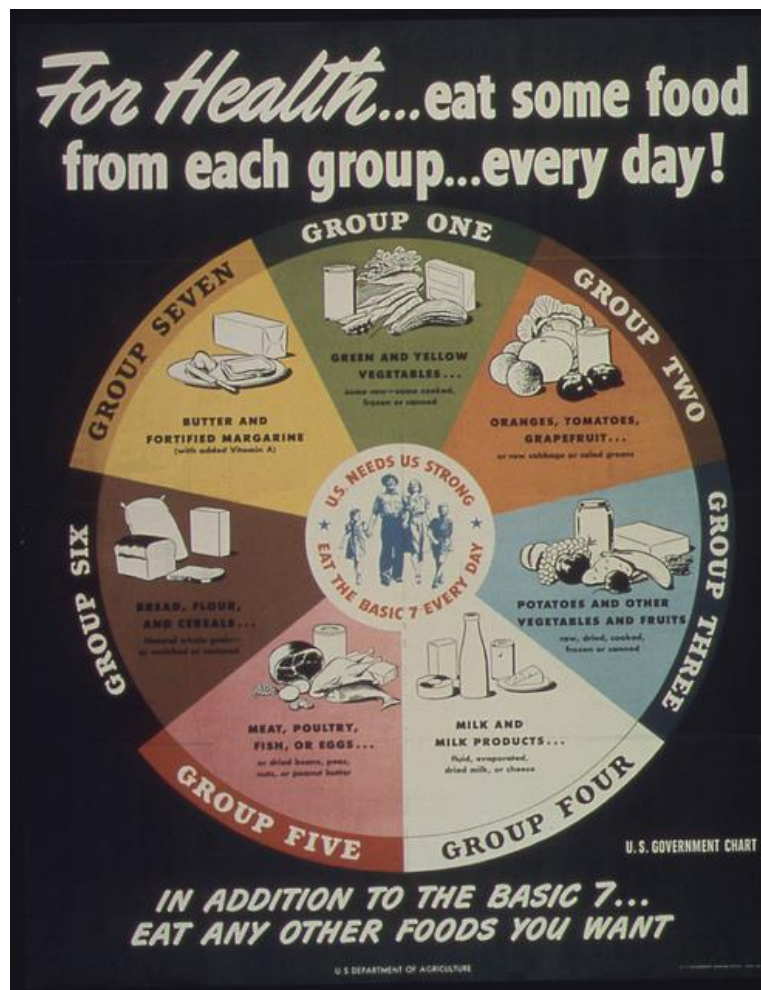
On his trip, Den Hartog found that the approach of the USDA was more visual and interactive than the Dutch methods. Already in 1943, the USDA introduced the Basic Seven. Here, seven food groups were represented in a wheel, as can be seen in figure 2. This food guide did not dictate exactly how much of each food group one should eat per day, only that

<sup>25</sup> Bast, “Schaarste”, 31. Den Hartog, C. and van Schaik, F.S.M. “Een Nieuwe Wijze van Voedingsvoorlichting”. 1953. *Voeding* 14 (5): 251-255. 252. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1952*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 537. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1953*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 59.

<sup>26</sup> Anonymus, “Verslagen 1952”, 539. Schuyt, “Zwart-Wit”, 49.



to keep healthy one should use some food from each of the seven groups every day. After WWII, suggested numbers of servings per day were added.<sup>27</sup>



2: The National Wartime Food Guide, published by the USDA in 1943. The represented groups were:

1. green and yellow vegetables;
2. oranges, tomatoes and grapefruit;
3. potatoes and other vegetables and fruits;
4. milk and milk products;
5. meat, poultry, fish, eggs, and dried pies and beans;
6. bread, flour, and cereals;
7. butter and fortified margarine.

The food guide did not dictate exactly how much of each group one should eat per day, only that to keep healthy “eat some food from each group... every day”. Mudry, J. 2009. *Measured Meals: Nutrition in America*. Albany: State University of New York Press. 65.

<sup>27</sup> Mudry, J. *Measured Meals: Nutrition in America*. 2009. Albany: State University of New York Press. 64.  
Welsh, S., Davis, C. and Shaw, A. "A Brief History of Food Guides in the United States." *Nutrition Today* 27: 6–11. 8. Anonymus, “Verslagen 1952”, 539.

### The Wheel of Five

Den Hartog's visit to the United States had led to a wide array of new ideas for the FCIB. It had become clear that nutritional education was not always effective, especially when it was not clear how to apply it in daily life. According to Den Hartog "it should be taken into account that the average housewife is unable to think in an abstract way". Abstract chemical terms such as protein, carbs and minerals meant nothing to 90% of housewives, Den Hartog argued. Instead, they understood products that make up a meal, such as milk and potatoes. Den Hartog concluded that if the FCIB wanted people to act on the latest insights, they should change their vocabulary.<sup>28</sup>

Following the United States' example, it was decided that products should be categorized. Here, it was decided to deviate from the seven American groups since the groups should be connected to the Dutch eating habits. It was decided by nutritionists and education experts to split the foods that were needed on a daily basis into five groups, in such a way that each group consisted of foods that were alike in their kind and nutritional value. It was attempted to put the foods that make up the most important source of a particular nutrient together. The resulting five groups are listed below.<sup>29</sup>

<b>Vitamin B2 &amp; calcium</b> <ul style="list-style-type: none"><li>•Milk</li><li>•Milk products</li></ul>
<b>Vitamin C</b> <ul style="list-style-type: none"><li>•Potatoes</li><li>•Vegetables</li><li>•Fruits</li></ul>
<b>Protein</b> <ul style="list-style-type: none"><li>•Cheese (also for calcium and vitamin B2)</li><li>•Meat or fish or legumes or eggs</li></ul>
<b>Vitamin A and D</b> <ul style="list-style-type: none"><li>•Butter or fortified margarine</li><li>•For the young and mothers to be cod-liver oil (for extra vitamin D)</li></ul>
<b>Vitamin B-complex and minerals</b> <ul style="list-style-type: none"><li>•Brown bread</li><li>•Rye bread</li><li>•Grain products</li></ul>

<sup>28</sup> Anonymus, "Verslagen 1953", 57, 59. Den Hartog, "Nieuwe Wijze", 251-252.

<sup>29</sup> Anonymus, "Verslagen 1953", 59. Den Hartog, "Nieuwe Wijze", 252, 254-255.

Out of each group, one product should be consumed each day. Moreover, a product out of the dairy group should be consumed at each meal, since that group was perceived to be of great importance. Products that were taken to be inessential, such as jam and macaroni, were not mentioned in this nutritional advice because the FCIB believed that one needed to eat some essential products, and whatever people ate besides that did not matter.<sup>30</sup>

Turning this seemingly straightforward message into a visual representation turned out to be quite difficult. After various attempts, the final design was realized on December 30<sup>th</sup> 1952.<sup>31</sup>



3: A pie chart consisting of five sections, each representing a particular food group. The groups were:

1. milk and milk products;
2. potatoes and vegetables and fruits;
3. cheese and meat or fish or legumes or egg;
4. butter or fortified margarine and for the young mothers to be cod-liver oil;
5. brown bread or rye bread or grain products.

The message to the public was that one needed something out of each group, each day and a product out of the dairy group at each meal. Bast, T. *Van Schaarste naar Overvloed: 70 Jaar Voedselvoorlichting in Nederland*. 2014. The Hague: Stichting Voedingscentrum Nederland Uitg, 2014. 30.

As can be seen in figure 3, the precursor of the modern Wheel of Five closely resembled the American Basic Seven. There were, however, various interesting differences between this design and the Basic Seven, the most striking of which are listed below.

<sup>30</sup> Den Hartog, “Nieuwe Wijze”, 252-255.

<sup>31</sup> Bast, “Schaarste”, 35.

## Wheel of Five



- One group for vegetables, fruit and potatoes
- No amount of servings added
- Cod liver oil recommended
- Cheese is placed within the protein group

## Basic Seven



- Three separate groups for vegetables, fruit and potatoes
- Amount of servings added already in 1946
- No cod liver oil recommended
- Cheese is placed within the milk and milk products group

These changes reveal some important aspects of nutrition education in the Netherlands. For instance, educators chose to recommend only one product from the vitamin C group per day, whereas in the United States one should consume three products related to potatoes, fruit and vegetables (as one should consume something from the green and yellow vegetables; something from the oranges, tomatoes and grapefruit group and something from the potatoes and other vegetables and fruits group each day). Furthermore, the Dutch educators chose an uncomplicated model, without a suggested number of servings. Both these changes seem to hint at the desire to create a simple model which was easy to understand and easy to live by.

The decision to recommend cod liver oil and to place cheese in the protein group in the Netherlands, versus not recommending cod liver oil and placing cheese in the milk and milk products group, seems to indicate that there was not only a friction between the educational method of the two countries, but also in the views on the content of the education.

According to the FCIB, designing the Wheel resulted in various debates. Unfortunately, pinpointing the subjects of these debates is challenging, as there are no transcripts available of the meetings the FCIB held on this matter. Therefore, the hypotheses offered above to explain the changes in transitioning from the American to the Dutch model cannot be easily verified. However, transcripts of the closely related and previously mentioned organization the FSEN offer some insight into how decisions were made in the

1950s. Den Hartog was closely related to FSEN as he was the secretary of this foundation and became its temporary director in 1950, linking the FCIB and FSEN.<sup>32</sup>

In transcripts of the meetings of the FSEN, there were various indicators of a conflict of interests between the foundation and the food industry. Combining receiving funds from the industry and providing the public with honest nutritional advice turned out to be a difficult task. Nonetheless, in 1953 the magazine started with advertising. Of course, this formed a welcome source of income, but it was feared that it might be at the price of the objectivity of the magazine. The organization especially struggled with margarine advertisements. The margarine industry was able to provide the funds the FSEN needed, but butter was considered to be the healthier option. Besides that, the foundation was for a large part sponsored by the dairy industry, which produced butter. Placing advertisements for margarine could severely damage the funds the magazine received from the dairy industry. In other words, the foundation did not only consider arguments concerning the health of the Dutch population, but also arguments of an economical kind, thereby endangering the objectivity of the organization<sup>33</sup>.

Even though margarine was considered to be inferior to butter, margarine can be found in the Wheel of Five, indicating that the FCIB too had difficulties with conflicting interests. This was not the only conflict of interests the FCIB faced, as the entire concept of the Wheel was a concession to the wishes of the Dutch population. The Wheel was less accurate than a table with lists of all possible nutrients and the required number of grams per day. However, since this was too difficult to apply, it was decided to simplify this nutritional advice, compromising the accuracy of the nutritional guidelines.

## II.2 Reorganising the FCIB

In 1956, the FCIB broadened its goals: besides educating the public about healthy and economic nutrition, they wanted to increase the public awareness of the importance of good

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<sup>32</sup> *Notulen van de 13<sup>e</sup> vergadering van de Stichting tot wetenschappelijke voorlichting of voedingsgebied gehouden op Dinsdag, 31 Januari 1950 in het gebouw Koninginnegracht 42 te 's-Gravenhage.* NL-HaNA, Voorlichtingsbureau Voeding, 2.11.88, inv. Nr 1. 2. Bast, “Schaarste”, 35.

<sup>33</sup> *Notulen van de 11<sup>e</sup> vergadering van de Stichting tot wetenschappelijke voorlichting of voedingsgebied gehouden op Dinsdag, 16 november 1948 te 's-Gravenhage.* NL-HaNA, Voorlichtingsbureau Voeding, 2.11.88, inv. Nr 1. 6. *Notulen van de 15<sup>e</sup> vergadering van de Stichting tot wetenschappelijke voorlichting of voedingsgebied gehouden op Maandag, 23 Juli 1951, des voormiddag te 10:30 in het gebouw Koninginnegracht 42 te 's-Gravenhage.* NL-HaNA, Voorlichtingsbureau Voeding, 2.11.88, inv. Nr 1. 3. *And Notulen van de 18<sup>e</sup> vergadering van het Bestuur van de Stichting tot wetenschappelijke voorlichting of voedingsgebied gehouden op Vrijdag, 23 October 1953, te 's-Gravenhage.* NL-HaNA, Voorlichtingsbureau Voeding, 2.11.88, inv. Nr 1. 1-3.

health. To fulfill this purpose, the Food Council decided that the FCIB should be a foundation – meaning that it would be legally separated from the government. It was argued that this would loosen the strictness of the nutritional guidelines, which was a desired change as resistance against the welfare state started to unfold. Recall that after WWII the Dutch government focused on creating collective welfare. Over time, more and more attention was paid to the individual instead of the collective, and therefore more and more people opposed governmental interference.<sup>34</sup>

As a part of transitioning to a foundation, the name of the FCIB was changed from Food Council's Information Bureau to Information Bureau for Nutrition Foundation (IBNF)<sup>35</sup>. Besides relieving the organization from its status as a governmental institution, the transition to a foundation had additional advantages. For instance, it would allow the Food Council to place their own members in the board, creating a connection between the content of nutritional guidelines and the corresponding education<sup>36</sup>.

#### Discontinuing the Fish Department

A few years after the reorganization from the FCIB to the IBNF, another restructuring took place. The bureau had always had a separate fish department, responsible for education and promotion – two tasks that could not always be separated properly. In 1960 the subsidy from the fish industry was reduced, while promotion costs kept increasing. As a result, the IBNF decided that it was no longer responsible to promote fish. A year later, the fish promotion returned because the board of the IBNF was able to regain its subsidy from the fish industry. However, there remained a struggle between the two parties, which eventually led to the decision to discontinue the fish department.<sup>37</sup>

This is a very interesting episode in the history of the IBNF, as there was a clear correspondence between the promotion of a particular kind of food and funds. If health was the only thing at stake for the bureau, promotional activities should not have been reduced, or

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<sup>34</sup> Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1957*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 525. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1956*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 539. Schuyt, “Zwart-Wit”, 270.

<sup>35</sup> Personal translation of “Stichting Voorlichtingsbureau voor de Voeding”.

<sup>36</sup> Anonymus, “Verslagen 1956”, 539. Anonymus, “Verslagen 1957”, 525.

<sup>37</sup> Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1964*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 1362. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1962*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 991 (1). Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1961*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 399, 451.

should not have been this elaborate in the first place. An alternative solution to deal with the decreasing funds might have been to reduce the promotion of all foods slightly. Instead, since the fish industry no longer sponsored the bureau, fish promotion was reduced.<sup>38</sup>

Truska Bast has a different opinion on this matter. In her book on 70 years of nutrition education in the Netherlands, she argued that the fish department was discontinued as a result of the FCIB changing into a foundation.<sup>39</sup> This seems flawed, as being a foundation had little to do with having a separate fish department. Moreover, the account described above is based on primary sources: the annual reports of the IBNF. The reason for this discrepancy might be found in her client: the Nutrition Center (the successor of the IBNF)<sup>40</sup>. A clear conflict of interests.<sup>41</sup>

### Struggling with advertising

In 1970, the annual reports of the IBNF were no longer published together with all records on health, but in *The Netherlands Journal for Nutrition*. Recall that already in the 1950s the FSEN decided to start advertising. As a result, an advertisement for honey was placed at the back of the IBNF's annual report of 1970, as can be seen in figure 4. Since nutrition educators had been trying to lower sugar consumption for years, placing an advertisement for honey at the back of an annual report seemed to defy the purpose. Of course, the editors had placed the advertisement – not the IBNF. However, the main editor of the magazine, Den Hartog, was the former director of the IBNF. Over time, the amount of advertisements increased. In later editions of the journal, there were for instance advertisements for Karvan Cévitam's syrup and there was an advertisement for curd carefully placed in an article on calcium intake.<sup>42</sup>

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<sup>38</sup> “Verslagen 1962”, 991 (1).

<sup>39</sup> Bast, “Schaarste”, 36.

<sup>40</sup> Nutrition Center is a personal translation of “Voedingscentrum”.

<sup>41</sup> We have contacted Bast on this matter per e-mail. Unfortunately, the author was unable to check her sources because she was finished with the project.

<sup>42</sup> Mellona. “Daarom honing van het grootste bijenpark in Nederland”. 1971. *Voeding* 32 (10): 548. Karvan Cévitam, “Karvan Cévitam: Goed voor het hele Gezin”. 1973. *Voeding* 34 (9): between page 486 and page 487. and Mino. “Mino dessertkwark, de kroon op uw werk”. 1973. *Voeding* 34 (3): between page 170 and page 171.



4: An advertisement that was placed on the back of an annual report of the IBNF. We see a bee proudly stating that Mellona honey met all legal demands. Mellona. “Daarom honing van het grootste bijenpark in Nederland”. 1971. *Voeding* 32 (10): 548.

During the 1960s, several developments resulted in a rapid growth of the advertising industry. Firstly, many Dutch advertising bureaus were acquired by their large foreign competitors, resulting in new methods and more means to advertise. Secondly, the introduction of the Broadcasting Act in 1967 allowed commercials to be aired on radio and television. These developments combined with the financial struggles of many organizations faced, resulted in more and more advertisements being placed: grocers placed products in their windows, editors placed advertisements in magazines and newspapers and commercials were aired on radio and television.<sup>43</sup>

The IBNF commented on this development in its annual report of 1972. Here, they criticized industry advertisements, which they felt were often misleading and incorrect.

<sup>43</sup> Hemels, J.M.H.J. Book review of W. Schreurs, *Geschiedenis van de reclame in Nederland 1870-1990* (Aula paperback CLXXVII; Utrecht: Het Spectrum, 1989). *BMGN – Low Countries Historical Review* 107 (2): 355-357. 355. Bardoel, J. Dutch Television: Between Community and Commodity. Taken from *Television and Public Policy: Change and Continuity in an Era of Global Liberalization* edited by Ward, D. New York: Taylor & Francis Group LLP, 2008. 199-222. 202. Van Otterloo, A.H.; “Prelude op de consumptiemaatschappij in voor- en tegenspoed 1920-1960”. Taken from Schot, J.W.; Lintsen, H.W.; Rip, A.; Albert de la Bruhèze, A.A. *Techniek in Nederland in de Twintigste Eeuw III: Landbouw Voeding*: 263-279. 2000. Zutphen, Walburg Pers. 269.



However, since the budget of the industry was much larger than that of the IBNF, it seemed impossible to counter this with their own propaganda.<sup>44</sup>

### II.3 Adjusting the message, maintaining the tone

Fat and sugar consumption had been on the rise ever since WWII had ended, which can be explained by a variety of societal changes. Compared to 1953, people had more choice in food products and more money to spend. There was more leisure time, so more time to eat. When people were working, they left their bread at home and bought food outside their homes. As a result of these changes, there was an increased demand for special and pre-made foods, alcohol and snacks. Consequently, vitamin and protein deficiencies were replaced by dental problems and obesity<sup>45</sup>.

Several campaigns were launched to combat these issues. An interesting example was a campaign funded by the horticulture industry, in which it was suggested that one should eat apples as a snack, instead of candy. Here, no attention was paid to the fact that an apple too contained lots of sugar. Additionally, the IBNF published a leaflet on dieting especially for women, which can be seen below in figure 5. The title of this leaflet is striking, “Little girl, stick to your diet”<sup>46</sup>. This patronizing message was at the time not frowned upon, but was quite normal. In fact, this way of addressing people would remain acceptable until the 1980s.<sup>47</sup>

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<sup>44</sup> Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1972”. 1974. *Voeding* 35 (2): 100-167. 100.

<sup>45</sup> Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1958*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 1321. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1963*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 1229 (5). Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1967*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 1978. 1078. Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1976”. 1977. *Voeding* 38 (11): 594-641. 595. Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1977”. 1979. *Voeding* 40 (2): 49-75. 50.

<sup>46</sup> “Little girl, stick to your diet” is a personal translation of “Meisje houd je lijn aan het lijntje”.

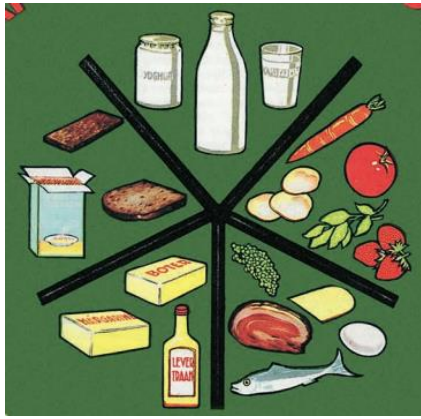
<sup>47</sup> Bast, “Schaarste”, 48. Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1970”. 1971. *Voeding* 32 (10): 512-547. 547. Anonymus. *Verslagen en Mededelingen betreffende de Volksgezondheid: 1966*. The Hague: Staatsdrukkerij en uitgeversbedrijf. 1791.



5: A leaflet introduced in 1968 by the IBNF to instruct girls on how to stay slim. The title of the leaflet was “Little girl, stick to your diet!”. Anonymus. ”Meisje, houd je lijn aan’t lijntje!”. 1968. Found on: <http://www.catawiki.nl/catalogus/boeken/uitgeverijen/voorlichtingsbureau-voor-de-voeding/1945163-meisje-houd-je-lijn-aan-t-lijntje> (Accessed 18-12-14).

### Changing the Wheel

Besides launching separate campaigns, the Wheel of Five was changed to fight obesity and tooth decay. Although the basic wheel with five food groups remained intact, the focus of nutritional education changed. In figure 6, the small changes the wheel went through between 1953 and 1969 are shown.



1953

- Brinta replaced by a generic box.
- Cracker added.
- Different design.



1964

- Generic box replaced by grain.
- Cracker removed.
- Different design.



1969

6: We see three versions of the Wheel of Five, published in 1953, 1964 and 1969. We see that the brand Brinta was initially represented in the Wheel, but was later replaced by more abstract depictions of grain. Furthermore, in 1964 a cracker was added, which was again removed in 1969. Finally, the design of the Wheel changed over the years. Sources top to bottom: Bast, T. *Van Schaarste naar Overvloed: 70 Jaar Voedselvoorlichting in Nederland*. 2014. The Hague: Stichting Voedingscentrum Nederland Uitg, 2014. 35; Anonymus. 6 March 1964. “Schijf van vijf” wijst de weg naar verantwoorde voeding. *Nieuwsblad van het Noorden*. 17; Anonymus. 21 October 1969. *Spaar uw lijf met de Schijf van Vijf*. *De Telegraaf*. 13.

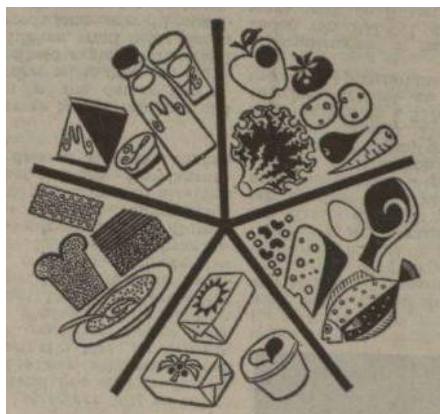
When the Wheel of Five was first introduced, the food industry was invited to have their products placed in the Wheel. Brinta was the only company that took advantage of this option, and a Brinta box was placed in the wheel of 1953. Later, the branded box was replaced by a more abstract box and thereafter by just grain. Further changes were the style of the illustrations and the temporary addition of a cracker. In the literature, no discussions on these three changes can be found, and it is therefore presumed that these changes were accepted without question.<sup>48</sup>

The Wheel was changed more thoroughly in the 1970s, after the original leaflet on the Wheel of Five sold out. After the redesign, a few products were added and others were removed, as can be seen in figure 7.<sup>49</sup>



1969

- Grain replaced by a bowl.
- Cracker added.
- School milk added.
- Apple added.
- Lettuce added.
- Strawberries removed.
- Peas removed.
- Beetroot added.
- Cod-Liver oil removed.
- Margarine added.



1973

7: The redesign of the Wheel of Five. Sources top to bottom: Anonymus. 21 October 1969. Spaar uw lijf met de Schijf van Vijf. *De Telegraaf*. 13. Schuil-van Walraven, A.M. 5 July 1973. Op trek met de pollepel! *Nederlands Dagblad*. 4.

<sup>48</sup> Ter Haar, G.I.; De Bekker, G.J.P.M; Hammink, J. "De Schijf van Vijf - een ideaal voorlichtingsinstrument?" 1979. *Voeding* 40 (2): 34-41. 38.

<sup>49</sup> Anonymus. "Een nieuwe schijf van vijf". 1970. *Voeding* 31 (9): 479. 479.

Especially the addition of school milk, diet margarine and an apple were very telling as they were all clearly in line with new developments in nutrition. Diet margarine was added to convey the message that the use of fat should be limited and the apple functioned as a healthy snack to prevent tooth decay<sup>50</sup>.

School milk had already been introduced in the 1930s, but due to the war efforts in promoting milk had been greatly reduced. However, when the production of milk increased tremendously in the 1950s, school milk was reintroduced.. A special bureau was created to promote milk. The strategy was to make milk something that was not only healthy, but also ‘cool’. Mainly children were targeted by the dairy bureau, since if one got used to drinking milk at a young age, the habit would remain throughout one’s life. A special heroic character ‘Joris Driepinter’ was created. Driepinter drank three glasses of milk and helped those in need, as can be seen in figure 8. This renewed promotion style can be linked to the rise of advertising and marketing at that time<sup>51</sup>



8 Joris Driepinter stopping a train to save a cow. He holds three glasses of milk, which were supposed to make him a strong hero. Anonymus. “Zuivel in de Reclame”. Found on [http:// www.zuivelgeschiedenis.nl/? PageID=54](http://www.zuivelgeschiedenis.nl/?PageID=54) (accessed 14-01-15).

<sup>50</sup> Anonymus, “Nieuwe Schijf”, 479.

<sup>51</sup> Andere Tijden. 2007. “Schoolmelk”. Found on: <http://www.huisvlijt.com/2013/08/schoolmelk.html> (accessed 14-01-15).

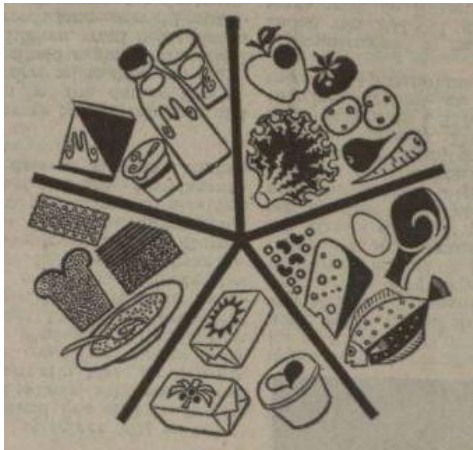
The remaining changes that took place in the redesign were not connected to health in an obvious way. Instead, these changes were likely to have a relation with fitting the Wheel of Five to the diet of the Dutch. Products added might have been more appreciated by the Dutch, and the products that were removed might have been disliked. This is a hypothesis, strengthened by the fact that cod-liver oil was no longer recommended because it was no longer used by the Dutch. Since one of the aims of the Wheel was to fit with the existing diet, it is presumed that these other changes can be connected to this end as well.<sup>52</sup>

The Wheel kept being updated over time, as can be seen in figure 9. However, there were only changes in design. The Wheel became increasingly well-known: the number of people who recognized the Wheel of Five rose from 33% in 1968 to 46% in 1974. Although this seems promising, as we shall see in our next chapter, the actual effectiveness of the Wheel turned out to be disappointing.<sup>53</sup>

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<sup>52</sup> Ter Haar, “voorlichtinginstrument”, 38.

<sup>53</sup> Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1974”. 1975. *Voeding* 36 (9): 489-532. 511.



1973

Different design.



1975

Different design.



1976

9: Three versions of the Wheel of Five after it was redesigned. From left to right the Wheels are from 1973, 1975 and 1976. Sources to bottom: Schuil-van Walraven, A.M. Op trek met de pollepel! 5 July 1973. *Nederlands Dagblad*. 4; Anonymus. Zo eet je gezond. 5 April 1975. *Limburgs Dagblad*. 34; Schuil- van Waveren, A.M. Op eigen benen. 2 September 1976. *Nederlands Dagblad: Gereformeerd gezinsblad*. 4.

### III. Action and reaction: 1975-1990

In this chapter, the Dinner Wheel and the Nutrition Index will be introduced. Section III.1 describes problems nutrition educators were facing. The solution to these problems, the Dinner Wheel, is presented in section III.2. In section III.3 the emerging discussion culture will be extensively discussed, followed by section III.4 which describes how the food industry managed to increase their influence in nutrition education. Finally, section III.5 is on the introduction of the Nutrition Index

First, section III.1 shows that the effects of the Wheel of Five were not as the IBNF had expected. Although more and more people were familiar with the Wheel of Five and its goals, eating habits had worsened. Moreover, the IBNF was receiving criticism from both nutritionists and an environmental movement.

These developments resulted in the introduction of the Dinner Wheel, which is described in section III.2. The main difference between the Wheel of Five and the Dinner Wheel is that one should not consume something of a food group every day, but at every meal.

This new tool was received critically. Section III.3 describes how the food industry and consumer organizations criticized the IBNF and the Dinner Wheel. Additionally, the IBNF and food industry too were criticizing each other and the Food Council. It will become clear that times had changed and a culture of discussion had developed.

Another interesting development is the increasing influence of companies in nutrition education. Section III.4 describes how both the IBNF and the FSEN were reorganized in such a way that the food industry managed to gain significant influence in both foundations.

Finally, section III.5 presents the Nutrition Index. It had turned out that the public was no longer looking for strict guidelines, but desired personal responsibility instead. The Nutrition Index was a tool that ensured health, but allowed people to make their own decisions.

The goal of this chapter is to show how the individualization of society led the IBNF to change their advice. Therefore, the emphasis of this chapter is on social developments, rather than the content of nutritional advice. Companies, consumers and scientists were all



discussing the meaning of proper nutrition and consequently the position of the IBNF as the only authority on nutrition vanished.

### III.1 Time for a change

Although the public became increasingly familiar with the Wheel of Five, the IBNF started to question whether the Wheel was still the best way to educate the Dutch population. Society had changed, with two major consequences. Firstly, the Dutch had adopted a completely different eating pattern compared to when the Wheel of Five was designed. Secondly, it became acceptable to question authority, resulting in criticism on the IBNF. In this section, first the eating habits of the Dutch will be discussed, followed by a review of the criticism emerging from society.<sup>54</sup>

#### Doubting effectiveness

After WWII various societal changes had taken place, many of which influenced the Dutch eating habits. In general, there was an increased range of products to choose from, an increased amount of money to spend on these products and less time for people to prepare their meals.<sup>55</sup>

An influential change took place when housewives were starting to enter the workforce, the effects of which were twofold. Firstly, this led to more money being spent on food, allowing families to buy more luxurious and industrially prepared foods. Secondly, women in the workforce had little time to prepare meals, consequently it became widely accepted to make use of industrially prepared foods. Whereas before, housewives took this to be lazy.<sup>56</sup>

Further, the Dutch found themselves in a growing economy, which resulted in even more wealth, allowing them to, for example, develop hobbies, go on vacations and give pocket money to their children. As more people enjoyed their hobbies, parents and their children spent less time at home simultaneously, leading them to eat out. Additionally, the prosperity of the Dutch nation encouraged people to travel and encounter new foods on their

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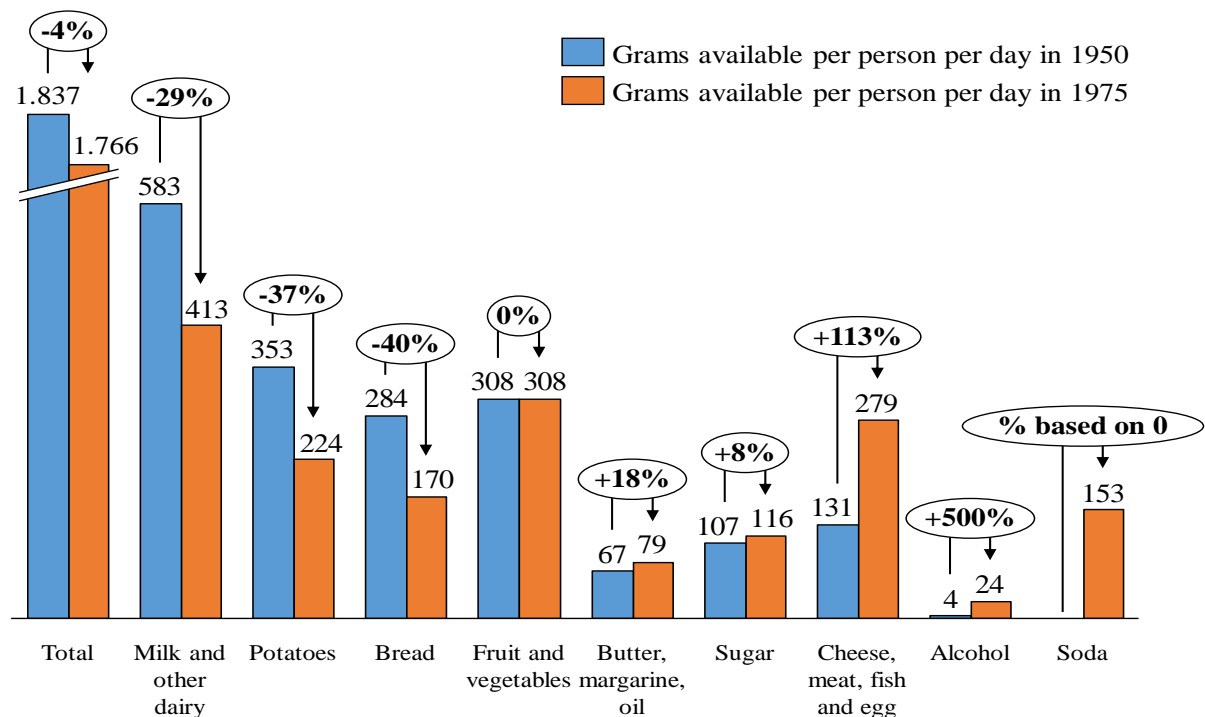
<sup>54</sup> Voorlichtingsbureau voor de Voeding, “Verslag 1976”, 595. Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1977”. 1979. *Voeding* 40 (2): 49-75. 50.

<sup>55</sup> “Verslag 1976”, 595. And “Verslag 1977”, 50.

<sup>56</sup> Van Otterloo, A.H.; Sluyter, B. “Naar variatie en gemak 1960-1990”. Taken from Schot, J.W.; Lintsen, H.W.; Rip, A.; Albert de la Bruhèze, A.A. *Techniek in Nederland in de Twintigste Eeuw III: Landbouw Voeding*: 281-295. 2000. Zutphen, Walburg Pers. 282-283.

journeys. People brought their renewed eating habits home, resulting in a more varied eating pattern and the decline of the consumption of the old-fashioned potato. Not only were people eating across borders, they were also eating products that were out of season, which was made possible by the development of new transportation systems and preservation techniques. Finally, the economic prosperity allowed parents to give their children pocket money, which was often spent on snacks and soda.<sup>57</sup>

These societal changes ultimately resulted in an increased demand for fast food, alcohol and snacks. Therefore, the production of food of 1950 compared to 1975 showed great differences, as depicted in figure 10.<sup>58</sup>



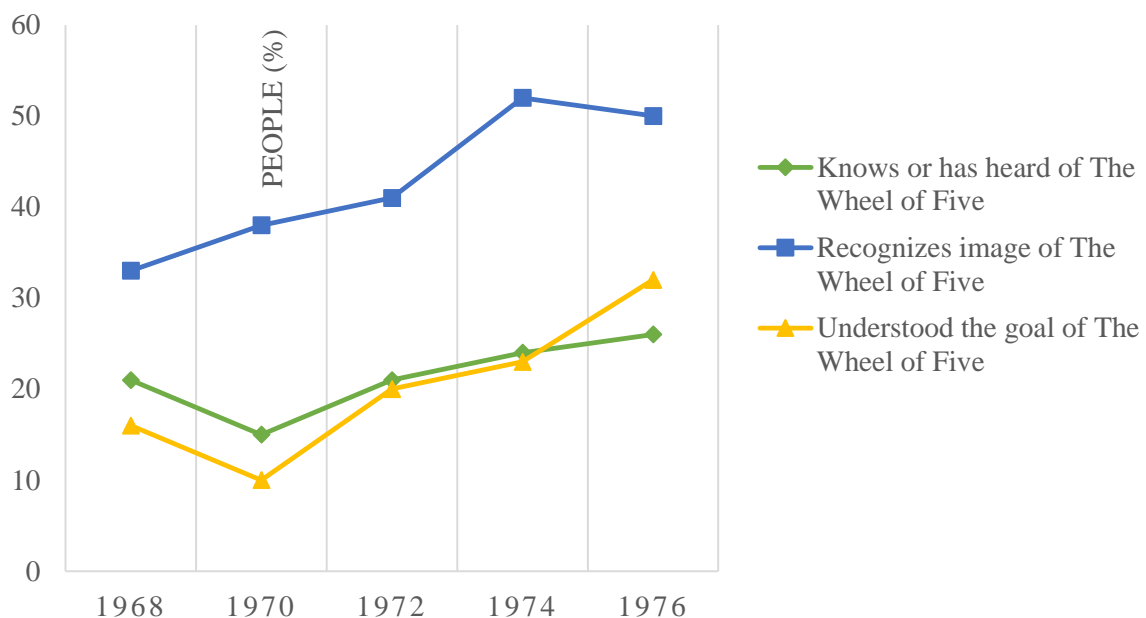
10: A bar chart showing the amount of grams of a particular product available per person per day in both 1950 and 1975. Although the amount of food produced was not equal to the amount consumed per person, it is presumed that these trends were the same in consumption. Voorlichtingsbureau voor de Voeding. "Verslag van de werkzaamheden van het voorlichtingsbureau voor de voeding over 1977". 1979. *Voeding* 40 (2):49-75. 49. Visual representation created in ThinkCell.

<sup>57</sup> Van Otterloo, "Naar variatie", 282-283.

<sup>58</sup> Voorlichtingsbureau voor de Voeding, "Verslag 1977", 49-50.

Although figure 10 indicates an overall decrease in the production of food, it should be noticed that the foods that were produced more were richer foods than those that had decreased. Therefore, an overall increase in the amount of calories produced was presumed. It was striking that products promoted by the IBNF, such as milk, bread and potatoes, were produced less, while the production of foods that had been warned for, such as fats, alcohol and sugar, had increased.

Nevertheless, the IBNF did manage to increase the popularity of the Wheel of Five, as can be seen in figure 11. The contrast between increasing awareness and disappointing results led the IBNF to question their practices.<sup>59</sup>



11: The results of the evaluation of the Wheel of Five. Over the years, the familiarization of the Dutch population with the Wheel of Five and its goal increased. It must be noted that the image of the Wheel of Five was the logo of the IBNF, so recognizing the logo could have meant being familiar with the IBNF. Ter Haar, G.I.; De Bekker, G.J.P.M.; Hammink, J. “De Schijf van Vijf – een ideaal voorlichtingsinstrument?”. 1979. *Voeding* 40 (2):34-41. 38. Visual representation created in Excel.

Figure 11 shows that the public became increasingly familiar with the Wheel of Five and its goal. Recall, however, that this awareness did not result in improved eating habits. The

<sup>59</sup> In 1981 a short statement was sent out by the IBNF. Here they pointed out that already when the Wheel was introduced, battling overconsumption was one of their concerns. The IBNF attempted to correct the ‘historical misinterpretation’ that the wheel has food deficiencies as its background. In the transcripts on the construction of the Wheel of Five however, these statements could not be verified. Anonymus. “De ‘Schijf van Vijf’ en de ‘Goede voeding met de Maaltijdschijf’”. 1981. *Voeding* 42 (6): 205.

IBNF thought that this situation was caused by the negativity of nutritional advice. The relation between nutrition and health was mainly perceived as negative by the public, meaning that many people only knew the downsides of particular types of food (sugar makes your teeth rot, fat makes you obese, etc.). The positives were often lost. As a result, the public thought that they could not eat anything anymore. Moreover, not emphasizing the healthy aspects of food might explain why there was no increase in the products that were taken to be healthy.<sup>60</sup>

### New influencers

Over time, there were more and more sources of information on nutrition. Advertisements from the food industry have already been described in chapter II. New sources were a new type of nutritionists and an environmental movement. Each group had their own ideas on nutrition, resulting in a flood of criticism for the IBNF.<sup>61</sup>

### Nutritionists

For a long time, nutritionists were trained in medicine, chemistry, biology or a related field - there was no special degree for nutrition science. This changed when Wageningen University created a department for human nutrition in 1968. As a result, nutrition science in Wageningen became more developed and the IBNF lost its monopoly position as an educator on nutrition. As a result, the IBNF could now be held accountable for their nutritional advice.<sup>62</sup>

In particular, some nutrition educators felt that the Wheel of Five was unable to convey the relationship between nutrition and lifestyle diseases. Others thought that the Wheel was fundamentally flawed, as it served conflicting purposes. Namely, it was the trade mark and logo of the IBNF; it should represent the ideal diet and, finally, it should be actionable – meaning that people should understand it and want to act on it. All these purposes were conflicting, they argued.<sup>63</sup>

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<sup>60</sup> Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het voorlichtingsbureau voor de voeding over 1978”. 1980. *Voeding* 41 (4): 143-159. 143-144.

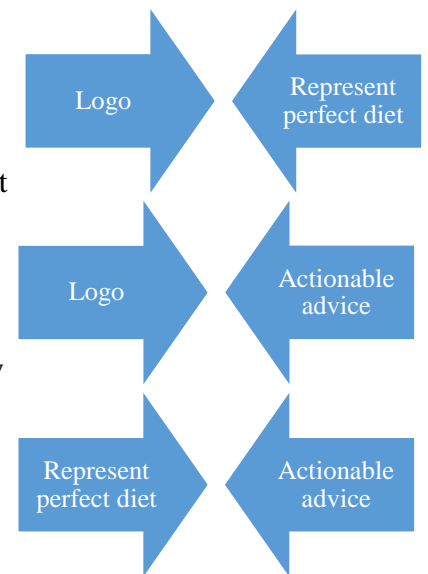
<sup>61</sup> Voorlichtingsbureau voor de Voeding. “Verslag 1978”, 143-144.

<sup>62</sup> Kraak, H. “Frans Kok luidt jubileumjaar in: ‘Voedingswetenschap gebaat bij integrale aanpak’ “. 2008. *Voeding Nu* (9): 9-11. 9. Rijnveld-Van Dijk, H.L.G. “Een korte kroniek van 40 jaar voedingsvoorlichting”. 1981. *Voeding* 42 (5): 142-146. 144.

<sup>63</sup> Ter Haar, “voorlichtingsinstrument”, 34-38.

Of course, the logo of the IBNF had to be clean and elegant, whereas the perfect diet was a very complex topic. Combining the purposes of a logo with an actionable advice was a complex process as well. The advice needed to be understood, meaning explanatory text was needed. Furthermore, the existing diet, like the ideal diet, was far too complex to be summarized into a logo<sup>64</sup>.

Finally, actionable advice and the perfect advice were two very different things. Even before the Wheel of Five was first introduced, it had become clear that an advice would not be followed if people did not understand it or if they simply did not like the food that was recommended<sup>65</sup>.



#### *An environmental movement*

Besides nutritionists, the IBNF had to face another group of strongly opinionated people. The founding of The Club of Rome at the end of the 1960s had triggered the development of an environmental movement, in which consumers reflected on the environmental consequences of Western over consumption as well as the use of additives and pesticides. As a result, a more ‘natural’ way of eating became popular. In a 1978 article endorsing a more natural way of eating, it was stated that “this is a much more informed and complete way of eating than what the IBNF advises”<sup>66</sup>. Shortly thereafter, a magazine supporting an alternative lifestyle published the Wheel of *Four*, which was designed to limit food waste. The Wheel of Four is shown in figure 12, on the next page.<sup>67</sup>

<sup>64</sup> Ter Haar, “voorlichtingsinstrument”, 34-38.

<sup>65</sup> Ter Haar, “voorlichtingsinstrument”, 34-38.

<sup>66</sup> Unknown, “Het is veel ingewikkelder dan de Schijf van Vijf: Praktisch Reform Handboek over de natuurgeneeskundige voedingsleer”. 27 June 1978. *De Waarheid*. 4.

<sup>67</sup> Rijnveld-Van Dijk, “korte kroniek”, 144-145. Van der Wal, M. “De Schijf van Vijf”. 8 March 1980. *Het Vrije Volk*. 33.



12: The Wheel of Four has four compartments, some of which are larger than others, to emphasize their importance. Grains, fruits and vegetables were recommended and intake of protein and fats should be limited. Meats were not included in this wheel. Van der Wal, M. “De Schijf van Vijf”. 8 March 1980. *Het Vrije Volk*. 33.

Although many people inquired information on a more natural way of eating, the IBNF initially tried to hold off giving advice on these matters. However, due to the increasing demand they did eventually try to inform the public on natural eating. A key problem for the IBNF here was that they were very unsure about which advice to give, as “several interpretations can be given by nutritionists given the same basic information”<sup>68</sup>. Notice that the IBNF here admits insecurity and acknowledges that they work with interpretations, and not with facts only. Additionally, Cramwinckel, a nutritionist from the University of Nijmegen, stated that scientific sources could only rarely be interpreted in only one way. He concluded that “we do not know as much about nutrition as we pretend to”<sup>69</sup>.

The events described in this section are clear indicators showing that authority vanished and a culture of discussion came into being. Later, in section III.3 more attention will be paid to this development.

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<sup>68</sup> Rijnveld-Van Dijk, “korte kroniek”, 144-145.

<sup>69</sup> Cramwinckel, A.B. “Eenheid in voedingsvoorlichting”. 1982. *Voeding* 43 (5): 167-168. 167.

### III.2 Introducing the Dinner Wheel

The disappointing effectiveness of the Wheel, combined with a flood of criticism, forced the bureau to develop a new approach. One of the most drastic changes was the revision of the Wheel of Five. The nutritional aim was to increase the consumption of brown bread, potatoes, legumes, fruit and vegetables, while the intake of meat, whole milk and dairy, margarine and other fats, and sugar, sugar products and salt, was to be reduced.<sup>70</sup>

To convey this message, the bureau created new food groups. It was decided to have only four food groups, to make it easier to comprehend. The resulting groups were as follow<sup>71</sup>:

1. Potatoes and potato replacements such as rice, macaroni, spaghetti; bread and bread replacements such as knäckebröt and cereal; legumes
2. Fruit; vegetables
3. Milk and dairy; meat, fish, chicken, egg
4. Butter, diet margarine, margarine

It was not enough to consume something out of each of these four groups, each *day*. Instead, one should consume something out of each group at each *meal*. The underlying idea was that changing the everyday message to an every meal message, would make the advice more practical and therefore actionable. However, there were in fact *seven* food groups underlying the above *four*, and one was supposed to eat something out of those seven groups each day. These seven groups were as follow<sup>72</sup>:

- i. Potatoes and potato replacements such as rice, macaroni, spaghetti
- ii. Bread and bread replacements such as knäckebröt and cereal
- iii. Fruit
- iv. Vegetables
- v. Milk and dairy
- vi. Meat, fish, chicken, egg
- vii. Butter, diet margarine, margarine

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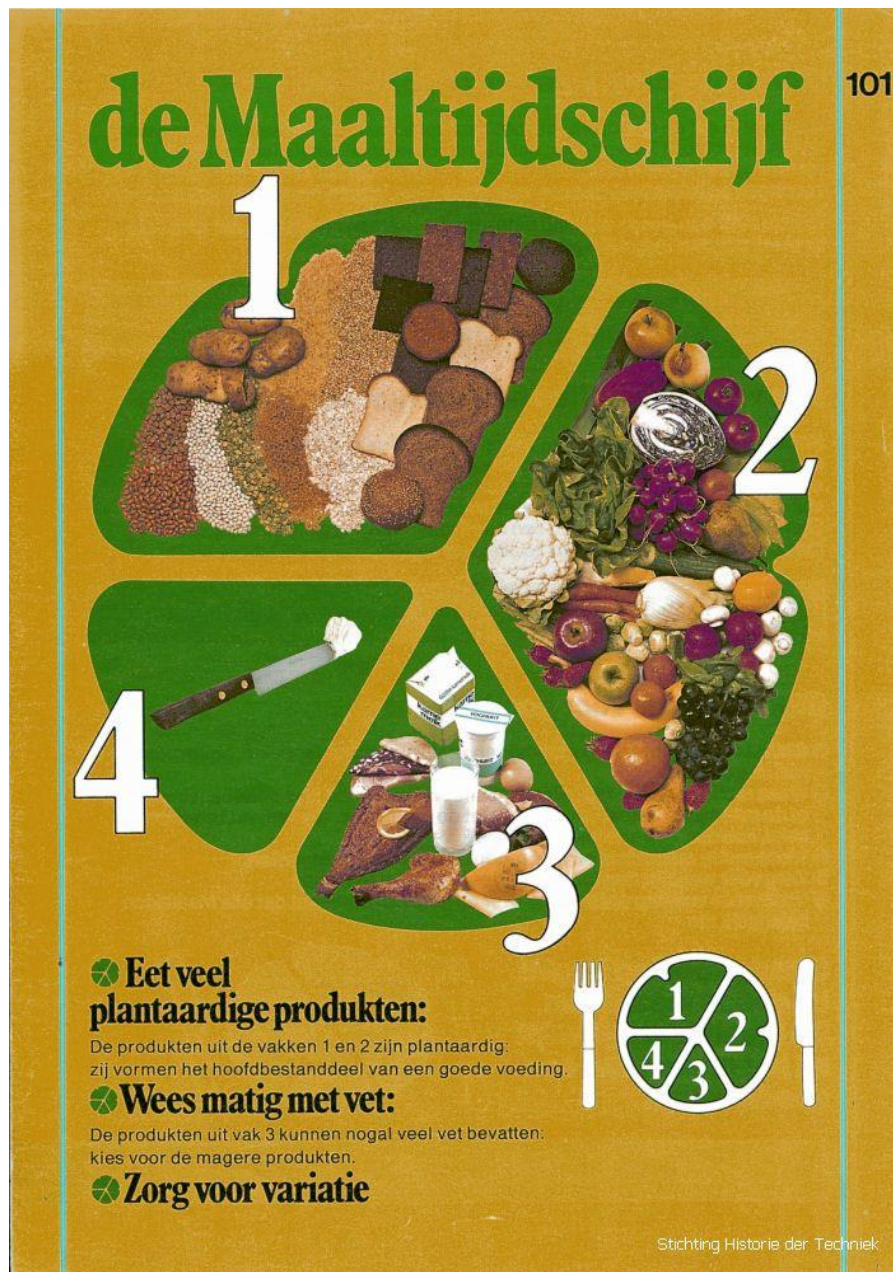
<sup>70</sup> Voorlichtingsbureau voor de Voeding, “Verslag 1977”, 50. Voorlichtingsbureau voor de Voeding, “Verslag 1978”, 144. Voorlichtingsbureau voor de Voeding, “Verslag van de werkzaamheden van het voorlichtingsbureau voor de voeding over 1979”. 1981. *Voeding* 42 (7): 228-246. 228.

<sup>71</sup> Ter Haar, G.I.; De Bekker, G.J.P.M. “Overwegingen die geleid hebben tot een nieuw voedingsvoorlichtingsinstrument: ‘De maaltijdschijf’”. 1981. *Voeding* 42 (5): 146-153. 148.

<sup>72</sup> Bast, “Schaarste”, 82. Ter Haar, “overwegingen”, 148-149.

This meant that, for example, one should eat something out of group 2 the “fruit and vegetables” at each meal. Additionally, one should eat at least one product out of group iii “fruit” and at least one product out of group iv “vegetables” each day.

In 1981 the Dinner Wheel, as can be seen in figure 13, was presented to the public.<sup>73</sup>



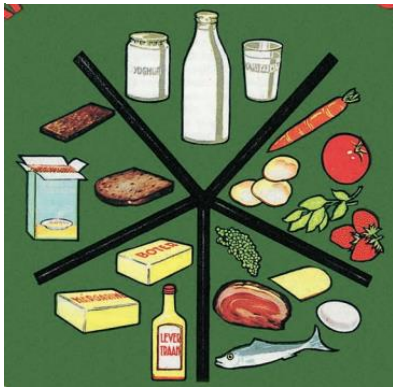
13: The Dinner Wheel. We see four food groups, having different sizes. The advice was to eat many vegetal foods, limit the intake of fat and to make sure to eat varied foods. Anonymus, “BESTAND: 05 G357 V 4 03TIFF.KPG”, found on: [http://www.techniekinnederland.nl/nl/index.php?title=Bestand:05\\_G357\\_V\\_4\\_03tiff.jpg](http://www.techniekinnederland.nl/nl/index.php?title=Bestand:05_G357_V_4_03tiff.jpg) (accessed: 19-02-2015).

<sup>73</sup> Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het voorlichtingsbureau voor de voeding over 1981”. 1983. *Voeding* 44 (9): 314-334. 314.



Notice that the Dinner Wheel might have been a combination of Wheel of *Five* and the Wheel of *Four*, both shown below. Similar to the Wheel of *Four*, the Dinner Wheel had four sections and the sections had different sizes. An important difference was of course, that the Dinner Wheel did contain meat, whereas the Wheel of *Four* did not.

**Wheel of Five (1953)**



**Wheel of Four (1980)**



**Dinner Wheel (1981)**



14: Left to right: the Wheel of Five, the Wheel of Four and the Dinner Wheel. Notice how the Dinner Wheel seems to be a combination of the Wheel of Five and the Wheel of Four. Left to right: Bast, T. *Van Schaarste naar Overvloed: 70 Jaar Voedselvoorlichting in Nederland*. 2014. The Hague: Stichting Voedingscentrum Nederland Uitg, 2014. 35. Van der Wal, M. “De Schijf van Vijf”. *Het Vrije Volk*. 8 March 1980. 33. Anonymus, “BESTAND: 05 G357 V 4 03TIFF.KPG”, found on: [http://www.techniekinnederland.nl/nl/index.php?title=Bestand :05 G357 V 4 03tiff. Jpg](http://www.techniekinnederland.nl/nl/index.php?title=Bestand%3A05_G357_V_4_03tiff.jpg) (accessed: 19-02-2015).

### III.3 The emerging discussion culture

As became clear in section III.1, the IBNF had to deal with more criticism than before. This would only increase after the introduction of the Dinner Wheel. In this section, criticism of the dairy industry towards the Dinner Wheel will be discussed first. Thereafter, the focus will lie on the development of various consumer organizations, which criticized both the IBNF and the food industry. After that, the IBNF’s response will be discussed. Finally, it will be shown that the introduction of new nutritional guidelines led to criticism from both the IBNF and the food industry. In other words, the development of the emerging discussion culture will be the subject of this section.

#### Criticism from the industry

Soon after the Dinner Wheel was introduced, a letter criticizing this new tool was sent to the editorial office of *The Netherlands Journal of Nutrition*. The criticism can only be explained

against the background of its author. The letter was sent by G.J. Hiddink, a representative of the dairy industry.<sup>74</sup>

In this letter, Hiddink argued that the Dinner Wheel was much more complex than the Wheel of Five. He highlighted the varying sizes of the compartments; the change from an everyday message to an every meal message; and the fact that a normal meal did not look like the Dinner Wheel. He argued that these were all elements that made the Dinner Wheel more complex than the Wheel of Five. Finally, presumably the most important critique, he rejected the merging of the dairy and meat section as “both product groups possess their own qualities”<sup>75</sup>.

Recall that dairy had its own compartment in the predecessor of the Dinner Wheel, as dairy was believed to be crucial when the Wheel of Five was designed. Later, however, nutritionists decided that it was not necessary to consume dairy at *every* meal. In other words, the IBNF did not deny the qualities of dairy, but merely chose to place their focus in their education elsewhere. The industry, however, presumably feared that this message would not be conveyed. In turn, this could impact their sales negatively.<sup>76</sup>

### Criticism from consumers

During the late 1970s, an economic recession struck the Netherlands, leading the IBNF to focus their activities on saving on groceries. To this end, a special cook book was released, filled with tips on how to eat on a budget.<sup>77</sup>

This book was not received well. For instance, the social service in Rotterdam refused to hand out the booklet to the unemployed as they perceived it to be stigmatizing. Recall the leaflet “little girl, stick to your diet”, which used to be perfectly acceptable and was not perceived as derogatory or stigmatizing at all. Clearly, times had changed. People were no longer accepting strict advice and were starting to become more assertive.<sup>78</sup>

This development did not stand on its own. The Dutch were starting to raise their voice against various developments, such as unemployment, nuclear energy and food

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<sup>74</sup> Hiddink, G.J. “Brieven aan de redactie”. 1982. *Voeding* 43 (4): 132-134.

<sup>75</sup> Hiddink, “Brieven”, 132.

<sup>76</sup> Voorlichtingsbureau voor de Voeding, “Verslag 1981”, 327

<sup>77</sup> Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1982”. 1984. *Voeding* 45 (8): 263-276. 265. Bast, “Schaarste”, 88.

<sup>78</sup> Bast, “Schaarste”, 88.

scandals. In particular, whereas food scandal could be solved by a simple apology in the 1960s, in 1980 Iglo lost millions over two deaths resulting from their fried rice. They were forced to apologize with large and costly advertisements, trying to regain the trust of consumers.<sup>79</sup>

In line with these developments, various consumer organizations were created. Three organizations will be briefly described below: Consumer Contact, the Association for Scientific Workers and the Information Center for Nutrition Foundation<sup>80</sup>. These organizations all criticized the shortcomings of the IBNF and attempted to fill whatever they thought was the gap in nutrition education.

Consumer Contact focused on educating the Dutch about misleading commercials, flawed legislation and food supply. They paid special attention to revealing the ‘true nature’ of a product, e.g. exposing the use of additives. Furthermore, Consumer Contact argued that the Dinner Wheel did not meet modern demands and aimed to fill this gap. Notice that this organization connected the development of a discussion culture with the focus on a more natural way of eating.<sup>81</sup>

The Netherlands Association for Scientific Workers was formed to help consumers make informed decisions. They criticized the IBNF for accepting the current supply of foods without fighting misleading commercials. Moreover, the association accused the IBNF of hiding their insecurities regarding certain matters and pretending to give objective advice, while working with blindly accepted information provided by the food industry. This organization was a clear indication of the upcoming discussion culture, in which neither the food industry nor the educators were safe. Authority was questioned and the food industry was distrusted.<sup>82</sup>

Finally, the Information Centre for Nutrition Foundation aimed to inform consumers, without giving incomplete or conflicting messages, which they accused the IBNF of giving. This foundation criticized the Dinner Wheel, which they felt had failed to reach the public. For instance, the fact that the vegetable section was so large, was perceived by consumers to

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<sup>79</sup> Bast, “Schaarste”, 88.

<sup>80</sup> Consumer contact is a Personal translation of “Konsumenten Kontakt”. Association for scientific workers is a personal translation of “Vereniging van Wetenschappelijke Werkers”. Information Centre for Nutrition Foundation is a personal translation of “Stichting informatiecentrum op Voedingsgebied”.

<sup>81</sup> Van der Veen, A. “Eenheid in de voedingsvoorlichting: Zijn er tegengestelde belangen?”. 1982. *Voeding* 43 (8): 266-267. 266.

<sup>82</sup> Manschot, M. “Eenheid in de voedingsvoorlichting; welke belangen zijn daarmee gemoeid?”. 1982. *Voeding* 43 (11): 386. 386.

be a graphic-esthetic choice rather than a nutritional message: “the fruit and vegetable section is so large, because otherwise it would be impossible to picture all different kinds”<sup>83</sup>.

Contrary to the Netherlands Association for Scientific Workers, the Information Centre for Nutrition Foundation was open to working with the food industry. To conclude, they mainly criticized the IBNF for using the wrong method, and did not focus as much on the content of nutritional advice.<sup>84</sup>

### Den Hartog’s response

There was a clear trend of consumers becoming increasingly empowered and articulate. Den Hartog realized a response was necessary and therefore published an article in which he attempted to argue against the criticism.<sup>85</sup>

Den Hartog stated that when the FCIB transitioned to the IBNF, the organization paid close attention to securing the objectivity and independence of the nutritional education. Moreover, he pointed out that to the - in his words - ‘uninformed’, it might seem strange that the IBNF was for a large part dependent on funds from the Ministry of Agriculture and Fishery. However, he argued, this dependence could be explained by considering the origins of the bureau. For a long time, the government did not feel responsible for the quality of food, only for its quantity. Thus it made more sense for the Ministry of Agriculture and Fishery to pay for the foundation, rather than for the Ministry of Social Affairs and Public health. However, as time progressed and the importance of the quality of food became clear, the Ministry of Social Affairs and Public Health decided to fund the IBNF as well.<sup>86</sup>

Den Hartog explicitly stated that the bureau had never felt any pressure from any organization whatsoever to compromise their objectivity; the IBNF was never tempted to overly stimulate people to consume foods that had been produced in surplus. He provided an example where they rejected the government’s suggestion to recommend more milk to soldiers, to get rid of a milk surplus.<sup>87</sup>

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<sup>83</sup> Bast, “schaarste”, 85.

<sup>84</sup> Ruisch, S. “Nieuwe Stichting wil met deskundige informatie over voedsel onnodige onrust wegnemen”. 12 December 1981. *De Telegraaf*. 19. 19. Bast, “schaarste”, 85.

<sup>85</sup> Den Hartog, C. “Kort historisch overzicht van het Voorlichtingsbureau voor de Voeding”. 1979. *Voeding* 40 (5): 199-200. 199.

<sup>86</sup> Den Hartog, “historisch overzicht”, 199.

<sup>87</sup> Den Hartog, “historisch overzicht”, 200.

Note that, even though the bureau did not recommend more milk to soldiers, the IBNF did help the dairy industry in another way. Recall the propaganda for milk consumption and school milk when there was a milk surplus. Moreover, there have been various instances where the bureau was forced to make concessions in their nutritional advice due to financial pressure. For instance, recall the discontinuation of the fish department and the depiction of margarine in the Wheel of Five.

### New guidelines

In 1986 the guidelines for healthy nutrition were updated by the Food Council. These new guidelines indicated that one should decrease the use of alcohol, salt, cholesterol, saturated fat and sugar, and increase the intake of unsaturated fat and complex carbohydrates.<sup>88</sup>

Although the IBNF was eager to work with the renewed recommendations, they thought that the nutritional terms used, such as ‘complex carbs’, were too difficult. An attempt to make these guidelines more tangible was undertaken by adding more concrete guidelines. For example, the guideline to lower cholesterol was translated by the Food Council into eating no more than three eggs per week. This resulted in criticism, however, because these exact numbers were giving a sense of false certainty. Moreover, it was very likely that these numbers should be revised, which would not help the vanishing authority of the nutrition educators either.<sup>89</sup>

To make sure these new guidelines would actually improve the eating habits of the Dutch population, a special committee was created. This committee was formed by delegates of the government, the IBNF and the Food Council. The most important task of this committee was to decrease the consumption of fat. The reason for focusing on fat was a pragmatic one, as educators thought that they had more chance of success if they would convey one message at a time. They chose to focus on fat in particular, because they thought that this could result in the largest health improvement.<sup>90</sup>

The food industry was hardly involved in this new committee. The precise reasons for this separation are unclear, but it is presumed that the committee wanted to avoid conflict of

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<sup>88</sup> Voorlichtingsbureau voor de Voeding. *Jaarverslag over 1986*. 1987. The Hague: Voorlichtingsbureau voor de voeding. 3.

<sup>89</sup> Voorlichtingsbureau voor de Voeding, “Jaarverslag 1986”, 4. Westmaas-Jes, M.M. “Commentaar vanuit de voorlichting op het advies Richtlijnen goede voeding”. 1986. *Voeding* 47 (6): 183. 183.

<sup>90</sup> Anonymus. “Stuurgroep Project Goede Voeding Ingesteld”. 1987. *Voeding* 48 (10): 286-287. 286-287.

interests. In 1988 a representative of the meat industry complained on the lack of involvement in the committee and argued that the industry was already working on reducing the fat content of their products. Additionally, the dairy industry urged the Food Council to revise their guidelines in 1990, as they considered research on fats to be controversial. Note that the dairy industry presented these comments in 1990: four years after the publication of the renewed guidelines and just after the announcement of a large add campaign to combat the use of fats, which could, of course, damage the dairy industry.<sup>91</sup>

### III.4 Industry influence

Although the food industry was shut out from the committee, presumably to avoid conflict of interests, it did manage to increase its influence. In particular, various industry representatives were placed on the board of the IBNF, the FSEN and the DINP.

#### Industry influence and the IBNF

In 1986, the internal structure of the IBNF changed. Until then, the board had consisted of delegates from the (semi-)government. To broaden social support for the IBNF, several delegates from the food industry, consumers groups and nutrition science were added<sup>92</sup>.

As mentioned, the indicated goal of the reorganization was to broaden the social support for the IBNF. However, recall that around this time an economic recession confronted the Netherlands, which caused the government to reduce subsidies in all sectors of society. In other words, the restructuring coincided with a series of budget cuts from government, which made it necessary for the IBNF to collaborate with the industry. It is therefore presumed that a large part of the considerations in the restructuring of the board were of a financial kind<sup>93</sup>.

The IBNF acknowledged that as a result of the renewed board, the boundaries between industry and non-profit faded. For instance, together with the Dutch supermarket chain Albert Heijn and the dairy products firm Becel, a new nutritional program was launched. The IBNF

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<sup>91</sup> Albers, H.F.F. “Stuurgroep Project Goede Voeding. Een valse start?”. 1988. *Voeding* 49 (3): 68. 68. Hiddink, G.J. “Vet: Minder en/of anders? Nieuw advies Voedingsraad noodzakelijk!”. 1990. *Voeding* 51(6): 170-171. 170-171.

<sup>92</sup> Voorlichtingsbureau voor de Voeding, “Jaarverslag 1986”, 31.

<sup>93</sup> Voorlichtingsbureau voor de Voeding, “Jaarverslag 1986”, 31. Voorlichtingsbureau voor de Voeding, “Verslag 1982”, 265.

insisted that it aimed to bring information to the people in an accessible way, which would not have been possible without the resources and expertise of these commercial partners.<sup>94</sup>

### Industry influence and the NNF

The FSEN, which published *the Netherlands Journal for Nutrition*, had plans to broaden social support as well. Moreover, they aimed to advance education, schooling and research. To reach these goals it was decided that they would merge with the DINP, resulting in the Netherlands Nutrition Foundation (NNF)<sup>95</sup>. Recall that the DINP was one of the first organizations to focus on nutrition education, founded by Van Leersum shortly after WWI and later reinstated by Jansen when the threat of WWII arose.<sup>96</sup>

In the new setting, four of the seven members of the daily board of the NNF were industry representatives. As a result, the NNF admitted to have become unable to give advice on nutrition, since the opinions regarding healthy nutrition of the involved parties were very different. They argued that they did, however, offer the opportunity for dialogue. Moreover, they stated that nutrition education was the task of the IBNF, not theirs. Recall that one goal of the NNF was to improve nutrition education. Therefore, it seems strange that the NNF was no longer able to give advice itself. Even the commonly accepted advice to reduce salt intake was off the table and could not be defended anymore.<sup>97</sup>

Instead of publishing articles on nutrition research, *the Netherlands Journal for Nutrition* became filled with articles that appeared to be subtle advertisements. For instance, in 1988 a nutritionist from General Biscuits wrote that “Eating and drinking do not serve the sole purpose to provide the body with energy and nutrients, but also, and maybe most important of all, to enjoy. When speaking about proper nutrition, this element is often forgotten” or “Looking at the consumption of products, we are justified to hold that the food industry has contributed to the fact that the current nutrition is less far off from the ideal nutrition than it would be without these products”<sup>98</sup>. Another example of a piece that appeared

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<sup>94</sup> Voorlichtingsbureau voor de Voeding. *Verslag over 1987*. Year unknown. The Hague: Voorlichtingsbureau voor de voeding. 4.

<sup>95</sup> The Netherlands Nutrition Foundation is a personal translation of the “Stichting Voeding Nederland”.

<sup>96</sup> Penning, A. E. “Wisseling van de wacht”. 1985. *Voeding* 46 (5): 158. 158. Stichting Voeding Nederland. “Jaarverslag 1986 van de Stichting Voeding Nederland”. 1987. *Voeding* 48 (8): 247-248. 247.

<sup>97</sup> Anonymus. “De nieuwe Stichting Voeding Nederland”. 1985. *Voeding* 46 (5): 160. 160. Van Kasteren, J. “Stichting Voeding Nederland: Platform voor universiteiten en bedrijfsleven”. 1988. *Voeding* 49 (1): 20-23. 20.

<sup>98</sup> Bekker, G.J.P.M. “Voeding in een toekomstperspectief; voedsel ter overweging”. 1988. *Voeding* 49 (2):39-42. 39-40.

to be subtle propaganda was an interview with a representative of the dairy industry, strikingly titled “Dairy is much more than only milk fat”<sup>99</sup>.

Besides publishing a journal, the NNF facilitated chairs for special professors. Here, the idea was that companies could donate money to a fund, and professors could be paid from those funds. This way the chairs remained independent of the companies supporting them. A similar construction was created for the other activities of the NNF: companies had no say in what happened with their donations. This way, the NNF tried to remain as impartial as possible. Although the NNF was very confident in their system, it seemed to be sensitive to conflicts of interests. For instance, it was possible for companies to deliver extra funds to one chair in particular, which seems to contradict the strict division between companies and the professors. For example, in 1992 Coca Cola provided extra funds for the chair of the Free University Amsterdam, and the Sweeteners Information Center provided extra support for the chair in Wageningen. In fact, assuming that companies would donate money to a fund that could potentially harm them, seems naïve.<sup>100</sup>

Finally, although the NNF claimed to be independent of the industry, companies and government, they did note in their journal that it was made possible by the financial support of several representatives of the food industry.<sup>101</sup>

### III.5 The Nutrition Index

After the Dinner Wheel was introduced, the IBNF started its evaluation. It turned out that many people did not understand how to use the Dinner Wheel. Especially using something out of each food group each *meal* - instead of each *day* - turned out to be a message difficult to convey. Despite changing the text that accompanied the Dinner Wheel, the success the Wheel of Five remained unmatched.<sup>102</sup>

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<sup>99</sup> Van Kasteren, J. “Zuivel is véél meer dan alleen melkvet”. 1988. *Voeding* 49 (3): 69-71.

<sup>100</sup> Van Kasteren, “Platform”, 22-23. Stichting Voeding Nederland. “Nieuws van de Stichting”. 1992. *Voeding* 53 (9): 248. 248.

<sup>101</sup> Hekkens, W. Th. J. M. “1992: een beslissend jaar”. 1992. *Voeding* 53 (1): 1. 1.

<sup>102</sup> Voorlichtingsbureau voor de Voeding, “Verslag 1982”, 270. Voorlichtingsbureau voor de Voeding. “Verslag van de werkzaamheden van het Voorlichtingsbureau voor de Voeding over 1983”. 1985. *Voeding* 46(2): 76-89. 76.



### Personal responsibility

The failure of the Dinner Wheel startled the IBNF, stating that “an explanation cannot be given”<sup>103</sup>. Yet, an explanation might be found in the growing individualization of society. The individualization of the Dutch society had started in the 1960s and sped up during the 1980s. Two aspects of this individualization were that people were striving for individual freedom and that they were no longer accepting traditional ideas.<sup>104</sup>

The fact that people were questioning authority has already been highlighted earlier in this chapter. People indicated a desire for personal freedom in choosing what they ate, in perfect alignment with the general strife for individual freedom. In other words, people did not want strict guidelines anymore, but insisted on having their own responsibility.<sup>105</sup>

### Introducing the Nutrition Index

To meet these modern demands, a new educational tool was designed. In this model, the consumer had more freedom to put together a healthy diet. This tool was nearly the same as the Dinner Wheel: the content of the message was equal but the form of conveying that message had changed. Although there were still four sections of foods, the new model included a section for fluids, as can be seen below. The idea was that the consumer should fill the sections of the nutrition index with foods of his or her choice, ensuring personal responsibility as well as the intake of enough nutrients. Since the Nutrition Index served mainly as an educational change and not a change in the message of the nutritional advice, little attention was paid to this new model<sup>106</sup>.

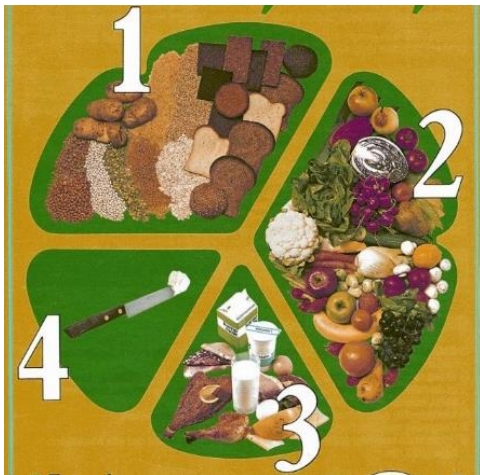
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<sup>103</sup> Voorlichtingsbureau voor de Voeding, “Verslag 1983”, 76.

<sup>104</sup> Felling, A.J.A. *Het proces van individualisering in Nederland: een kwarteeuw sociaal-culturele ontwikkeling*. 2004. Nijmegen, Katholieke Universiteit Nijmegen. 3.

<sup>105</sup> Bast, “Schaarste”, 112.

<sup>106</sup> Bast, “Schaarste”, 113. Anonymus. “Voedingwijzer volgt maaltijdschijf op”. 24 December 1991. *Limburgs Dagblad*. 19. Sysma-Aalbergs, A.B. “De Voedingwijzer”. 20 January 1992. *Nederlands Dagblad*. 7.



1981

- Group for fluids added.
- Only the food groups are pre-determined, the consumer can choose the products.
- Different design



1991

15. The Nutrition Index had the same four sections for food as the Dinner Wheel and an extra section for fluids. Consumers could place products in these sections, ensuring personal responsibility and health. Sources top to bottom: Anonymus, “BESTAND: 05 G357 V 4 03TIFF.KPG”, found on: [http://www.technikinnederland.nl/nl/index.php?title=Bestand:05\\_G357\\_V\\_4\\_03tiff.Jpg](http://www.technikinnederland.nl/nl/index.php?title=Bestand:05_G357_V_4_03tiff.Jpg) (accessed: 19-02-2015). Anonymus, “Schijf van Vijf: Maaltijdschijf: Voedingsschijf: Voedingspiramide: Wie en wat moet je geloven?”, found on: <http://afvallen123.com/schijf-van-vijf-maaltijdschijf-voedingsschijf-voedingspiramide/> (accessed 24-02-2015).

Although consumers could decide on their diet individually, the IBNF designed ten rules to help the consumer<sup>107</sup>. Since the consumer could interpret these guidelines freely, there was still enough room for snacks - to the satisfaction of snack producers. For instance, in 1991 a representative of Mars B.V. emphasized personal responsibility. This way, the

<sup>107</sup> The rules to use the nutrition index were as follows: Eat varied; Moderate the consumption of fat; Eat lots of fibers and starch; Eat three meals per day and use no more than four snacks in between; Use salt sparingly; Drink at least 1.5 liters of fluid per day, but be moderate with alcohol; Maintain a good weight; Prevent food poisoning by proper hygiene; Take the presence of harmful substances into account; Read what is on the packaging. Bast, “Schaarste”, 113-115.

company's responsibility for producing sugar loaded foods was implicitly denied. According to this representative "there are of course people who eat too much chocolate. Just like there are people eating too much chips or cookies. That is their own responsibility. Good or bad individual products do not exist; there is only good or bad nutrition as a whole"<sup>108</sup>.

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<sup>108</sup> Van Kasteren, J. "Ook zoetwaren zijn voedingsmiddelen". 1991. *Voeding* 52 (2): 137-139. 137-139.

## IV. Scattered Responsibility: 1990 - 2000

This chapter will focus on the shift from personal responsibility of the individual consumer to the social responsibility of companies, the government, scientists and the media. Section IV.1 briefly discusses how the Nutrition Center, a merger of various foundations for nutrition education, came into being. Thereafter, the various challenges faced by the Nutrition Center will be discussed in section IV.2. Next, the solutions the Nutrition Center came up with will be discussed in section IV.3. Thereafter, in section IV.4, the trend of functional foods will be examined in detail. Finally, section IV.5 describes how all these developments resulted in a shift from personal responsibility of the individual consumer to the social responsibility of companies, the government, scientists and the media.

Section IV.1 shows how, based on pragmatic considerations, it was decided to merge four organizations for nutrition education into the Nutrition Center. Then, section IV.2 pays extensive attention to the various problems the Nutrition Center faced. In particular, the Nutrition Center struggled with ignorance of consumers regarding their own eating habits, resulting in consumers ignoring their advice. Additionally, consumers were becoming increasingly distrustful towards various organizations, including the Nutrition Center.

To regain the trust of consumers, the Nutrition Center reinstated the familiar Wheel of Five in 2004. Section IV.3 shows that this was more of a marketing move than an educational decision. The Wheel of Five was a familiar concept, whereas the Nutrition Center was not. By reinstating an old familiar tool, the Nutrition Center hoped to get back the trust they once had.

Although the Nutrition Center seemed to be unable to change the eating habits of the Dutch population, they did increase the awareness of the relation between nutrition and health. This resulted in the popularization of a new type of foods: functional foods. These products claimed to have some positive effect on health, which could not be proven by science. Therefore, strict guidelines were created to limit the use of health claims.

Finally, section IV.5 describes the result of all these developments. It was concluded that consumers could not be held accountable for their eating habits, until the involved parties worked together to create a more unified message. This turned out to be a challenge which, until today, remains unresolved.

The goal of this chapter is to explain how the discussion culture as described in chapter III escalated in a full authority crisis. The focus is therefore on the relations between

the various parties involved to show how a web was created where many parties were dependent on one other, and no longer had the interest of the consumer as their first priority.

#### IV.1 The Nutrition Center

In 1989 a group of ten professors representing the NNF suggested to combine four independent nutrition bureaus (the FCIB, the NNF, the Steering Committee Healthy Nutrition and the National Center for Food Hypersensitivity) into one national center<sup>109</sup>. This Nutrition Center would advise the government and educate the public. Besides creating a more (cost-) efficient situation, this would ensure a coherent message.<sup>110</sup>

First, the four involved organizations were transferred to a new office: the Nutrition Center. Thereafter, the four organizations were officially merged. The latter turned out to be an arduous task, as defining a vision and creating a scope turned out to be challenging. Moreover, budget cuts had put the project on hold during the 1990s. It was not until 2000 that the Nutrition Center became an official organization.<sup>111</sup>

#### IV.2 Challenges

In their efforts to educate the public, the Nutrition Center faced two main challenges. Firstly, they found out that consumers lacked self-knowledge, which they assumed to be causing the public to ignore advice. Secondly, consumers distrusted the various sources of information, including the Nutrition Center.

##### Lack of self- knowledge

Despite the introduction of the Nutrition Index, getting nutritional guidelines across remained challenging. Nutritionists figured that the main obstacle in their education was that the public lacked a clear image of their diet. For instance, it was found that out of the Dutch population

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<sup>109</sup> Steering Committee Healthy Nutrition is a personal translation of “Stuurgroep Goede Voeding”. National Center for Food Hypersensitivity is a personal translation of “Landelijk informatiecentrum Voedselovergevoeligheid”.

<sup>110</sup> Stichting Voeding Nederland. “Nieuws van de stichting”. 1990. *Voeding* 51 (6): 176. 176.

<sup>111</sup> Wagenaar, C. “Het Voorlichtingsbureau voor de Voeding is van ons allemaal”. 1991. *Voeding* 52 (10): 238-239. 239. Hekkens, W.Th.J.M. “Nota Voedingsbeleid: Omzien in verwondering”. 1994. *Voeding* 55 (2): 3. 3. Gerritsen, W.J. “Integratie Voedingscentrum gestrand”. 1994. *Voeding* 55 (10): 4-6. 4. Gerritsen, W.J. “Voedingscentrum presenteert businessplan”. 1997. *Voeding* 58 (7/8): 6-7. 6. And Anonymus. “Voedingscentrum een feit”. 1998. *Voeding* 59 (1/2): 4. 4. Bast, “Schaarste”, 132.

older than 16 years, approximately 41% underestimated their fat consumption, 64% overestimated their vegetable consumption and 24% overestimated their fruit intake. As a result, many people did not feel addressed to in many campaigns, as they felt the message did not apply to them.<sup>112</sup>

A promising solution was found in providing the public with more tailored advice. Those receiving personal feedback, were more inclined to change their eating habits than those receiving generic advice. Consequently, the Nutrition Center launched various campaigns to make people more aware of their eating pattern. For example, they launched a program where individual consumers could fill out a form on their diet. Consumers could then send this form back to the Nutrition Center and thereafter they received personal feedback.<sup>113</sup>

### Trust issues

Unfortunately, even if people were aware of what they were eating, the problem would not be solved. It turned out that consumers did not understand what they should eat. Especially the use of additives and genetic modification were controversial and, according to the Nutrition Center, poorly understood.<sup>114</sup>

The underlying problem was not a lack of knowledge, but a lack of trust. When consumers were asked to list the three most reliable sources of information on nutrition, they gave telling answers.<sup>115</sup>

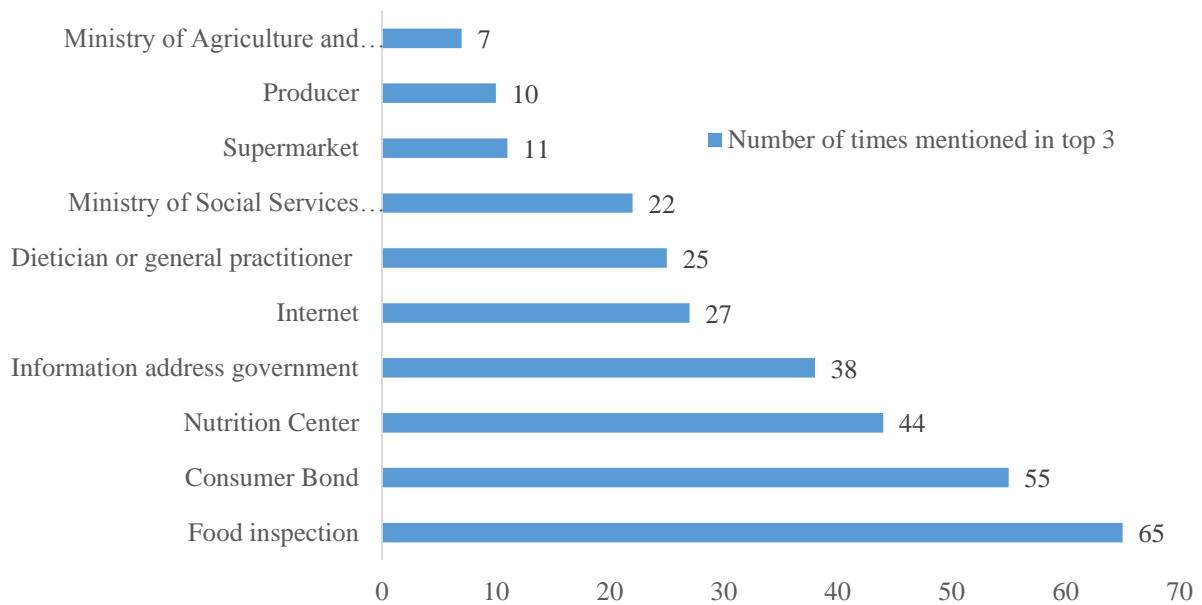
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<sup>112</sup> Gerritsen, W.J. “Ideeën over eigen voeding staan gezonder eetpatroon in de weg”. 1996. *Voeding* 57 (11): 34-36. 36. Bemelmans, W.J.E. “Realistisch beeld vetconsumptie basis voor verandering”. 1996. *Voeding* 57 (7/8): 32-35. 32-33.

<sup>113</sup> Anonymus. “Met computer misconcepties over voeding te lijf”. 1997. *Voeding* 58 (7/8): 31-32. 31-32. Van Vugt, M.; Knoppert, J. “Een krasfolder geeft inzicht in het voedingsgedrag”. 1999. *Voeding Nu* (5): 30-31. 30. Anonymus. “Goede voeding, wat let je? Campagne aangepast”. 1999. *Voeding Nu* (6): 8. 8.

<sup>114</sup> Spanjersberg, M. “E-nummers geven misverstanden”. 2002. *Voeding Nu* 1: 34. 34. De Koning, F.; Buurma, E. “Communicatie laat te wensen over: Acceptatie consument bepaalt succes ggo's”. 2002. *Voeding Nu* (3): 29-31. 29.

<sup>115</sup> Dagevos, “Vraagbakens”, 13.



16 Consumers were asked to list their top 3 of most reliable sources for nutrition information. The Food inspection came out as the most popular source, and the Ministry of Agriculture and Fishery was trusted the least. Dagevos, H.; Hansman, H. “Onderzoek Voedingscentrum: vraagbakens en vertrouwen van consumenten rond voedselveiligheid”. 2002. *Voeding Nu* (6): 13-16. 14.

Notice in figure 16 that not only the food industry had a bad reputation, the government was distrusted as well. There were two main causes for this situation: food scandals and an increasing distance between the food industry and consumers.

Firstly, a series of food scandals had led to distrust of consumers towards both the food industry and the government. It was no surprise that the food industry was distrusted, since they produced the harmful products. The reason why the government was distrusted as well was because they had failed to inform the public on several occasions. Food scandals that had a major impact were, for instance, the outbreak of BSE (mad cow disease), dioxin in chickens and eggs and infant botulism, which was caused by honey.<sup>116</sup>

Secondly, consumers no longer knew how their food was produced. As products became increasingly processed, consumers no longer knew how these products were made. For instance, desserts, dry soups and soda’s all had a supply chain that was unknown to

<sup>116</sup> De Boer, J.; Willemsen, H. A. “Communicatie en gedrag: Vier incidenten voedselveiligheid geanalyseerd”. 2003. *Voeding Nu* (12): 13-15. 13, 15.

consumers. According to the Nutrition Center, this unawareness increased the distance between industry and consumers, which in turn fueled distrust.<sup>117</sup>

### The Nutrition Center under attack

The Nutrition Center considered itself to be the go-to organization to inform consumers on complex and controversial topics. Since the organization based its advice on scientific consensus - “that what scientists agree upon” - they thought they had an advantage over other sources of information<sup>118</sup>. These other sources were, according to the Nutrition Center, unclear and unreliable because of a lack of scientific support and conflict of interests.<sup>119</sup>

Although the Nutrition Center was very confident in their abilities and objectivity, other organizations were starting to question their intentions. Their funding and the promotion and protection of ‘unhealthy’ products angered consumer organizations.

The Nutrition Center was funded by the Ministry of Social Services and Health and the Ministry of Agriculture and Fishery. Recall that these governmental organizations did not score well in the research shown in figure 16. Therefore, distrust in these organizations led to distrust towards the Nutrition Center. In particular, they were accused of being influenced by the industry via the government<sup>120</sup>.

Moreover, the Nutrition Center was accused of promoting unhealthy products. Each year, the Nutrition Center awarded a company that made healthier nutrition easier and more accessible to the Dutch population. Companies were eager to make use of this opportunity, mainly because this award would be a perfect marketing tool. Products nominated were, for instance, low-fat snacks or sauces with lots of vegetables. Nominees included fast-food chain McDonald’s and IgloMora, which was involved in a food scandal that killed two people in the 1980s. The media commented on this award, as it seemed strange to award pre-made foods produced by controversial companies. According to the Nutrition Center, consumer trends

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<sup>117</sup> Satter, J. “Voedingscentrum informeert over voedselproductieketens”. 2004. *Voeding Nu* (3): 29. 29. Van Otterloo, A.H. “Voeding in Verandering”. Taken from Schot, J.W.; Lintsen, H.W.; Rip, A.; Albert de la Bruhèze, A.A. *Techniek in Nederland in de Twintigste Eeuw III: Landbouw Voeding: 237-248*. 2000. Zutphen, Walburg Pers. 238.

<sup>118</sup> Bast, “Schaarste”, 133.

<sup>119</sup> Janssen, L. “Consumenten over ggo’s informeren”. 2003. *Voeding Nu* (9): 34. 34.

<sup>120</sup> Kraak, H. “Het Voedingscentrum als communicatieautoriteit: ‘Een icoon voor mensen die vragen hebben over hun eten’ ”. 2004. *Voeding Nu* (5): 25-28. 25.



could not be ignored: people wanted easy to prepare foods anyway, with or without the presence of their award.<sup>121</sup>

Additionally, in 2005 the Nutrition Center published a list of products that contained a large amount of saturated fat and their ‘healthy’ alternatives. This campaign was remarkable as it offered sugary foods as alternatives to fatty products. According to the campaign, candy bars found a healthy alternative in lollypops. Situations like these made it for the consumer impossible to make informed decisions, according to a consumer organization.<sup>122</sup>

Finally, besides being accused of promoting unhealthy products, the Nutrition Center was also accused of protecting them. This resulted in public bickering between the Nutrition Center and consumer organizations. For example, in 2004 a consumer organization published an article describing the dangers of additives. In response, the Nutrition Center defended these additives as they felt the conclusions drawn in the article were exaggerated. Furthermore, when environmental organizations warned for pesticides, the Nutrition Center denied their claim. In response, this environmental organization exposed the relationships between the Nutrition Center and the agricultural industry.<sup>123</sup>

### IV.3 A new approach

The Nutrition Center was not as well-known as desired: only 20% of the Dutch population was familiar with the organization in 2000. This fact combined with the new trend of distrust and the disappointing results of their nutrition education led the Nutrition Center to develop a new strategy.<sup>124</sup>

In 2004, it was decided to reintroduce the Wheel of Five, which had been abandoned almost 20 years earlier. The Dinner Wheel and the Nutrition Index had never reached the same success as their predecessor, which was still very well known. The reintroduction of the Wheel of Five was mainly a marketing move, not much was changed to the content of nutritional advice. The idea was that the familiar Wheel of Five would bring back the reliable image nutrition educators once had<sup>125</sup>.

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<sup>121</sup> Faas, M. “Gezonde voeding scoort”. 2002. *Voeding Nu* (11): 34. 34. Van Sluys, Y. “Jaarprijs Goede Voeding en de pers”. 2003. *Voeding Nu* (12): 34. 34.

<sup>122</sup> Voedingscentrum. “Vet Wijzer: Let op verborgen vet!”. 2005. *Voeding Nu* (7/8): between page 17 and 18. Van der Laan, A. “‘Light’ gebakken lucht”. 2005. *Voeding Nu* (10): 9. 9.

<sup>123</sup> Kraak, “Communicatieautoriteit”, 26.

<sup>124</sup> Bast, “Schaarste”, 131, 135.

<sup>125</sup> Bast, “Schaarste”, 135, 138.

### The Wheel of Five 2.0

The renewed Wheel of Five was, in terms of content, similar to the Nutrition Index: there were four sections for food and one for fluids. The size of the sections represented the importance of that particular group. Cheese was removed as it contained too much saturated fat. Additionally, the ten rules of the Nutrition Index were summarized to only five, and the recommendation to exercise was added.<sup>126</sup>



1991



2004

- No more focus on consumers choosing their own products. Products again predetermined.
  - Cheese removed.
- Different design: circle diagram reintroduced.
- Five rules for healthy eating are shown in the Wheel of Five.

17: A comparison between the Nutrition Index (top) and the Wheel of Five (bottom). Sources top to bottom. Anonymus, “Schijf van Vijf: Maaltijdschijf: Voedingswijzer: Voedingspiramide: Wie en wat moet je geloven?”, found on: <http://afvallen123.com/schijf-van-vijf-maaltijdschijf-voedingswijzer-voedingspiramide/> (accessed 24-02-2015). Anonymus. “Schijf van vijf: Model ontwikkeld in 1953 (schijf van vijf)”. Found on <http://schijf-van-vijf.nl/> (accessed 05-04-2015).

<sup>126</sup> Voskamp, A.M. “De comeback van de Schijf van Vijf”. 2004. *Voeding Nu* (12): 9-12. 10. Bast, “Schaarste”, 136.

The Nutrition Center aimed at a feasible advice, which has led to some interesting decision making. For instance, eating fish was not encouraged because not everybody liked eating fish. Further, an alternative educational tool, the food pyramid, was rejected because it discouraged the intake of potatoes and dairy. Since this conflicted with Dutch eating habits, the Nutrition Center thought it was unlikely for the Dutch people to use the model and therefore decided not to use it.<sup>127</sup>

Further, the Nutrition Center aimed to keep things simple as conveying complicated messages was deemed too difficult. For example, communicating the differences between types of fat (saturated and unsaturated) had turned out to be a challenge. Therefore, it was decided that conveying the difference between these two types of fat would not be attempted.<sup>128</sup>

To conclude, in reintroducing the Wheel of Five, the Nutrition Center made various pragmatic decisions. They aimed at a simple and feasible message, instead of a 'perfect' advice. Moreover, the reason for placing this information in a circle diagram was because it could then be labeled the Wheel of Five, which was perceived as reliable by consumers.

#### IV.4 Health claims

The efforts of nutrition educators did result in consumers becoming increasingly aware of the relation between nutrition and health. As an undesired consequence, products with medical claims were becoming very popular. These 'functional foods' were not received with much enthusiasm by nutritionists because these products were promoted with claims that could not be unequivocally supported by the literature. As a result, a new nutritional discussion came into being. To illustrate this development, two examples will be discussed: Fysiq yogurt and olive oil.<sup>129</sup>

Fysiq was a yogurt produced by Mona that claimed it "contributed to a responsible cholesterol level"<sup>130</sup>. The health inspection tried to forbid this claim, but failed. The reason

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<sup>127</sup> Voskamp, "Comeback", 9-10. Hammink, J. "Moet de voedingsvoorlichting ondersteboven? De piramide van Willett in Nederlands perspectief". 2003. *Voeding Nu* (4): 18-19. 18-19.

<sup>128</sup> Gerritsen, W.J. "Voorlichters over uitgangspunten vetboodschap". 1998. *Voeding* 59 (10): 27-28. 28.

<sup>129</sup> Gerritsen, W.J. "Claims mogen, vragen blijven". 1996. *Voeding* 57 (7/8): 4. 4. Gerritsen, W.J. "Dokteren aan gezondheidsclaims". 1996. *Voeding* 57 (7/8): 14-16. 16.

<sup>130</sup> Gerritsen, "Claims mogen", 4.

was that a high cholesterol was not an illness and therefore one could not argue that producer Mona was claiming to be of medical importance. Only claims that explicitly stated that the product was healthy, were forbidden.<sup>131</sup>

Olive oil was not produced by one single company, which makes this case different from FysiQ. The European Community played a key part in the promotion of olive oil, for economic reasons. In 1997 the European Committee organized a consensus meeting regarding the health aspects of olive oil. Here it was concluded that there was consensus on the health aspects of olive oil in the Mediterranean diet. On closer inspection, however, it became clear that the focus of the meeting was on the Mediterranean diet as a whole, and not so much on olive oil by itself<sup>132</sup>. Nonetheless, this consensus was phrased in such a way that it seemed as if the health aspects of olive oil by itself were proven.

If claims such as those mentioned above were allowed, it could be expected that there were many more to come. Since these claims could not be forbidden, they continued to appear in commercials, whether they were founded or not. As a result, consumer organizations feared that consumers would become unable to determine which foods were healthy.<sup>133</sup>

### Creating guidelines

In 1998, ten collaborating health funds demanded an end to the confusion surrounding health claims. As a response, the Nutrition Center created a code of conduct, which was signed by representatives from both the food industry and consumer organizations. The code of conduct determined how health claims should be judged and supported.<sup>134</sup>

A few years later, it turned out that these guidelines had been too lenient. More and more products were claimed to have some positive effect on health. New policies were therefore designed, both on a national as well as on a European level. In 2005, a more elaborate set of EU rules was designed to assess the scientific research supporting health

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<sup>131</sup> Gerritsen, “Claims mogen”, 4.

<sup>132</sup> Gerritsen, W.J. “Geoliede gezondheid”. 1997. *Voeding* 58 (6): 4. 4. Gerritsen, W.J. “Voor gezondheidsclaims olijfolie voldoende onderbouwing”. 1997. *Voeding* 58 (6): 18-19. 18. Gerritsen, W.J. “Olijfolie, hoezo consensus?”. 1997. *Voeding* 58 (7/8): 4. 4.

<sup>133</sup> Van den Boogaard, A.C.; Van Dam, F.W. “Claims – hoe nu verder?”. 1996. *Voeding* 57 (9): 25. 25.

<sup>134</sup> Anonymus. “Gezondheidsfondsen willen einde aan vewarring voeding en gezondheid”. 1998. *Voeding* 59 (4): 4. 4. Gerritsen, W.J. “Toetsingsprocedure en criteria vastgelegd in Gedragscode”. 1998. *Voeding* 59 (5): 6-8. 6.

claims on foods and ingredients. This set was much more extensive than before, narrowing down the options for companies to make misleading health claims.<sup>135</sup>

#### IV.5 Shifting responsibilities

It has become clear that it became increasingly difficult for consumers to make informed decisions. Consumers overestimated their health, distrusted educators and simply were unable to assess commercials critically. This fueled an entirely new discussion and, as a result, a shift took place. Starting from the 2000s, personal responsibility of individuals was replaced by the social responsibility of companies, the government, scientists and the media. Being overweight was no longer the fault of the overeating individual consumer, but a problem of the entire society. This section will go into more detail on the role of the various players.<sup>136</sup>

In 2002 the Nutrition Center stated that “it is time for fast food chains to take their responsibility” and later that “we can no longer hide behind the personal responsibility of the consumer”<sup>137</sup>. In other words, educators were addressing the food industry, confronting them with their social responsibility. Unfortunately, many companies were not ready to take this responsibility. For example, in 2003 the Nutrition Center launched a campaign to combat the intake of fat. As a part of this campaign, a commercial was aired with the message that one third of cheese consists of fat. Representatives of the dairy industry complained, since, strictly speaking, not all cheeses were one third fat. Therefore, the Nutrition Center was forced to alter their commercial. Additionally, the following quote by a Campina (dairy company) representative is telling: “we are just a commercial company. Our goal is to sell as much as possible. [...] we do not have an explicit idealistic goal.”<sup>138, 139</sup>

Not only the food industry was forced to take responsibility, the government was urged to take responsibility as well. In a letter sent to *Nutrition Now*, the government was held accountable for the health of the Dutch population and was asked to take on a more active role

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<sup>135</sup> Van den Berg, H.; van Nieuwland, L. “Ferm standpunt Gezondheidsraad over gezondheidsclaims”. 2003. *Voeding Nu* (7/8): 9-11. 11. Verhagen, H.; Tuijelaars, S.; Pijls, L. “Consensusrapport van het EU-project PASSCLAIM: Wetenschappelijke onderbouwing van gezondheidsclaims op voedingsmiddelen”. 2005. *Voeding Nu* (7/8): 15-17. 17.

<sup>136</sup> Schaafsma, G. “De dikker wordende mens, het gelijk en ongelijk van Bob Cramwinckel”. 2004. *Voeding Nu* (10): 30. 30. Dubbink, W. “Transparantie markt niet zaligmakend: Overgewicht: eigen Schuld, dikke bult?”. 2005. *Voeding Nu* (3): 15- 17. 15.

<sup>137</sup> Hammink, J. “Fastfood: boosdoener bij overgewicht!?”. 2002. *Voeding Nu* (9): 34. 34. Breedveld, B. “Verantwoordelijkheid van de consument”. 2004. *Voeding Nu* (10): 34. 34.

<sup>138</sup> Engelbarts, C. “Bedrijven en voorlichters: samen op de bres voor gezonde producten”. 1998. *Voeding Nu* (1): 17-19. 17.

<sup>139</sup> Anonymus. “Kaasspot Voedingscentrum gewijzigd”. 2003. *Voeding Nu* (1): 7. 7.

in preventing health problems<sup>140</sup>. Unfortunately, it turned out to be a challenge to get this topic on the political agenda, as the government considered consumers themselves responsible for their nutrition.<sup>141</sup>

Scientists too were confronted with their social responsibility. As discussed in the previous section, the food industry increasingly utilized health claims to promote their products. Thus, science became a marketing tool. Of course, scientists benefited from industry as well. As the collaborations between scientists and the food industry tightened, people began questioning this partnership. This was not only voiced in several books, but also by scientists themselves. For example, nutritionist Katan from Wageningen warned for the negative sides of the collaborations between industry and science. According to him, sponsored researchers could feel obligated to verify health claims - ignoring negative results and emphasizing positive ones. Especially when there were financial interests involved, the wording of results could be chosen in such a way that the actual message was concealed<sup>142</sup>.

Moreover, it turned out that many relationships between nutrition and health were not as solid as had been thought before. For instance, there was no scientific basis for the relationship between various cancers and nutrition. The general difficulty was that nutrition research was based on epidemiological research, meaning that the research was conducted to see *whether* the intake of a particular food would lead to some statistical significant effect. There was no focus on *how* that effect was created. This method was criticized more and more over time. According to former nutritionist Cramwinckel, the division for nutrition research in Wageningen should be dissolved, because he considered their epidemiological approach to be ineffective.<sup>143</sup>

Finally, journalists were taken to be responsible as well. They were therefore asked to present a more balanced view of both the positive and negative effects of nutrition, combined

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<sup>140</sup> *Nutrition Now* is a personal translation of *Voeding Nu*. *Nutrition Now* was the result of a merger between *The Netherlands Journal of Nutrition* and *Nutrition and Education*. This merger was part of the creation of the Nutrition Center. *Nutrition and Education* is a personal translation of *Voeding en Voorlichting*. Gerritsen, W.J. "Een speciaal nummer". 1998. *Voeding* 59 (11): 4. 4

<sup>141</sup> Van der Woning, M. "Voeding in de politiek: bondgenoten nodig". 2005. *Voeding Nu* (6): 12-13. 12. Van der Woning, M. "Wat te doen met aanbevelingen van ons eten gemeten?". 2005. *Voeding Nu* (6): 26-27. 26.

<sup>142</sup> Van Stigt Thans, R. "Leef bewust eet gerust". 1999. *Voeding Nu* (3): 23. 23. Engelbarts, C. "Het 'pluis' van de wetenschapper". 1999. *Voeding Nu* (4): 13-15. 13-14. Anonymus. "Communicatie". 1994. *Voeding* 55 (1/2): 5. 5. Korthals, M. *Voor het eten: Filosofie en ethiek van voeding*. Boom, Amsterdam. 2002.

<sup>143</sup> Van der Woning, M. "Beter onderzoek geeft nog niet gewenste duidelijkheid: Richtlijnen Goede Voeding beste advies voor preventie kanker". 2002. *Voeding Nu* (7/8): 18-19. 18. De Vries, J. "Gezondheidsraad laat functies vetten onderbelicht". 2002. *Voeding Nu* (7/8): 20-21. 20-21. Interview with Bob Cramwinckel on 23-03-2015.

with the necessary background knowledge, allowing the consumer to place the results in context.<sup>144</sup>

Of course, journalists were no longer the only source of information available to consumers. After 1996, the number of homes connected to the internet had doubled every 12 to 18 months. The internet became a place where people were given the opportunity to speak their mind and to be heard. The internet brought an accessible exchange of ideas, texts and software, the likes of which humanity had never encountered. Presumably, this development further fueled the confusion of consumers, as there were tons of conflicting sources of information available with one click of the mouse.<sup>145</sup>

Unfortunately, it turns out that all involved parties were hesitant to take responsibility. In a study conducted with the goal of seeing how the involved parties could help one another, it was found that the involved parties were mainly pointing at one another and the individual consumer, leaving themselves out of the equation.<sup>146</sup>

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<sup>144</sup> Gerritsen, W. “Voedingsforum Nederlandse Academie van Wetenschappen: Over voeding in de media: graag meer nuance en emotie”. 2005. *Voeding Nu* (1): 15-17. 17.

<sup>145</sup> Van de Pol, H. *Bibliotheken en Internet*. 1997. The Hague: NBLC Uitgeverij. 24, 27.

<sup>146</sup> Van der Wooning, M. “Overgewichtprobleem effectiever aanpakken”. 2005. *Voeding Nu* (5): 16-17. 16.

## Conclusion

The goal of this thesis was to identify the various stakeholders in nutrition education and describe how their involvement may have influenced nutrition education. It was found that throughout the 20<sup>th</sup> century, educators were often forced to make concessions. The food industry provided funds, and therefore educators sometimes promoted products they maybe should not have. The Dutch population demanded easy and feasible guidelines, forcing educators to create a simplified version of the perfect diet. The meaning of the perfect diet, however, was subject to debate as well. Scientists became increasingly involved with the food industry, causing them to emphasize some results and leave out others.

Another key finding was that views on who was responsible for the health of the Dutch population have changed. There has been a constant struggle between the government and nutrition educators. The government often considered that it was the personal responsibility of the individual consumer to take care of his or her health. Only in times of war, the government was compelled to fund nutrition education. In the 1990s, it was decided that the individual consumer could not be solely responsible for his or her health. Instead, other parties should accept their responsibility too. This did not only concern nutrition educators and the Dutch government, but scientists, the food industry and the media were confronted with their role in the health of the Dutch population as well. Unfortunately, these parties all seemed hesitant to accept their responsibility.

Individuals confronted with these findings may adopt a different, more critical attitude towards the information they are being given. Not only should the consumer be aware of misleading commercials, s/he should also read articles critically and not accept the advice given by the Nutrition Center without question. Moreover, it should be realized that even scientific research can be biased. Recall that this thesis aimed to create transparency, not a verdict. The collaboration of the various involved parties need not be a bad thing. It is, however, relevant for consumers to be aware of the risks and insecurities these partnerships bring to nutrition education. The judgement as to whether these alliances are a good or a bad development, I leave for the reader to decide.

To society as a whole, this research should have made clear that something has gone wrong. Nutrition education has existed for over 70 years, without much success. Maybe it is time to try something else. It has been shown that people only seem to listen to nutritional guidelines when they have no other choice. Only in times of scarcity, there was a large demand for nutritional guidelines. These times have passed, and consumers now find



themselves in a position to make (unhealthy) decisions. It seems that as long as consumers have the freedom to choose unhealthy products, they will. Maybe, a tax on unhealthy products, limiting the availability of unhealthy products would be a solution.

Of course, the results obtained in this research can be disputed. Most of this research is based on the ideas of nutrition educators themselves. Educators concluded consumers wanted personal responsibility, thought that the Dutch people did not know what they were eating, judged that eating habits had worsened, etc. It is possible that from another point of view, this history might have been described very differently. Therefore, for future research it would be valuable to consider how the other parties involved perceived their role in nutrition education and the difficulties these parties faced.

For now, think carefully about what you eat and who you trust. You would not want to be in the 89% of Europe's population that is overweight in 2030, would you?

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## Additional sources

- Interview with Bob Cramwinckel on 23-03-2015.