

GENETIC-BASED PERSONALIZED NUTRITION IN HUNGARY – IS THERE A VIABLE BUSINESS MODEL?

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Abstract: *A move from population-based nutrition guidance toward personalized nutrition may offer a more effective strategy than before to improve dietary habits of citizens worldwide. However, a significant number of consumers are not willing to adopt the highest level of personalization, i.e., gene-based personalized nutrition. The purpose of this paper is to examine whether there is a viable business model for genetically based personalized nutrition services in Hungary, and what business model would promote a higher level of consumer acceptance of the new technology. As a first step, a systematic Internet search was conducted to gather personalized nutrition counselling services that meet four criteria: they are related to nutrition; show some level of personalization; offer a product or service; and use some kind of consumer information to personalize a product or service. The second step was an expert content analysis of the service providers' websites to identify the nine elements of the Business Model Canvas, based on which business model archetypes were identified. We can conclude that the vast majority of services available in the Hungarian market are based on phenotypic information; gene-based personalized nutrition is only rarely found. Our results suggest that business models of the Hungarian market differ significantly from the models identified by previous research. Of the eight identified business model archetypes, the "All in one place" model would promote a higher level of consumer acceptance of nutrigenomics-based services.*

Keywords: *personalized nutrition, nutrigenomics, genetic-based nutrition, business model*
JEL Code: I12, M31

INTRODUCTION

Efforts to improve eating habits in recent decades have not been very effective, resulting in an increase in the incidence of nutrition-related diseases worldwide. Chronic diseases such as obesity, diabetes, cardiovascular diseases and cancers are currently responsible for 71% of all deaths (WHO, 2018), while improving diet and lifestyle could prevent 80% of them (FALLAIZE et al. 2013). This raises the question of developing new, more effective strategies to change eating habits (FALLAIZE et al. 2013; BOUWMAN et al. 2005) to move individuals toward healthier eating. Part of this may be a shift from dietary recommendations for the entire population to personalized nutrition (FALLAIZE et al. 2013).

Personalized nutrition includes three levels (FISCHER et al. 2016; GIBNEY and WALSCH 2013; RIMBACH and MINIHANE, 2009): the first, least person-dependent level is personalized nutrition counselling based on individual

lifestyle (including nutrition information). The second level is based on phenotypic information (e.g., anthropometric, clinical parameters, and biochemical markers of nutritional status); and only the third level is personalized counselling using genetic information (RONTALTAP et al. 2013), providing the most accurate results.

In the early 2000s, some claimed that nutrigenomics had already reached the commercialization phase (MULLER and KERSTEN, 2003), and more than a decade ago several researchers had predicted that nutrigenomics would find its place in mainstream healthy eating within a few (i.e. 10-15) years. According to them we would have a list not only of what is healthy and what is not based on our specific genetic profile, but also of how much and at what intervals nutrients should be consumed (BOLAND, 2008; VAN EST and HANSSSEN, 2003). At the same time, experts in various disciplines in nutrigenomics (e.g., molecular biologists, food scientists, bioethicists, government agencies, food

and biotechnology companies, NGOs, including primarily patient rights advocates) expected the market introduction of genetically based nutrition advice or food products between 2010 and 2050; their average forecast was 2020 (RONTELTAP et al. 2007). According to RONTELTAP et al. (2013), the vast majority of personalized services available on the market belong to the first level; a significant part of them relies on phenotypic information, while although the third level of personalized nutrition has already appeared on the market, gene-based personalized nutrition is still not a mainstream activity in the market. This is partly due to consumer ignorance or even fear of the risks and costs of the new technology, which has been supported by a number of studies (BEREZOWSKA et al. 2015; BEREZOWSKA et al. 2014a; BEREZOWSKA et al. 2014b; STEWART-KNOX et al. 2013; WENDEL et al. 2013; MORIN, 2009).

Although a significant proportion of consumers worldwide would be willing to follow a genetic test-based personalized diet (among European consumers, the willingness varies between about 13 and 39% (STEWART-KNOX et al. 2009), in some countries it may reach 45 (ROOSEN et al. 2008) and even 70% (AHLGREN et al. 2013)), but not nearly everyone. According to Hungarian research studies, openness of domestic consumers to genetic-based personalized nutrition is lower than that of most foreign consumers: 27% in 2014 and 23.5% in 2019 would have been willing to try the new technology (SZAKÁLY et al. 2021; SZAKÁLY et al. 2014). Thus, despite the greater benefits of personalization than in case of the lower two levels based on more accurate information, consumers do not seem to be willing to take full advantage of the potential of genetically based personalized nutrition en masse; consumer acceptance of nutrigenomics-based personalized nutrition is much lower compared to personalized nutrition based on lifestyle and phenotypic information (RONTELTAP et al. 2013).

Based on these, the question arises as to whether there is a viable business model for genetically based personalized nutrition services at all, and what business model would promote a higher level of consumer acceptance of the new technology. To the best of the authors' knowledge, the issue has so far been investigated by a single study (RONTELTAP et al. 2013) in the case of services available in English and Dutch, so not specifically in the Hungarian market. To answer our research questions, we identified business models of personalized nutrition services that have been operated for years or even decades, some of which can be followed by gene-based personalized nutrition service providers.

MATERIALS AND METHODS

The starting point of the research methodology was the study by RONTELTAP et al. (2013), which was modified to take into account Hungarian specifics.

As a first step, we conducted an Internet search using the Google search engine in September 2020 to gather personalized nutrition counselling services that meet four criteria: they are related to nutrition; show some level of personalization; offer a product or service; and use some kind of consumer information to personalize a product or service. In our searches the Hungarian synonyms of these criteria were systematically combined, two-word expressions without quotation marks and also with quotation marks (Table 1). We conducted a total of 400 searches, and compiled an inventory of websites providing personalized nutrition services that met the four criteria. The results of a given search term were examined to the saturation point, i.e., we stopped at the result page where no new inventory hit appeared. Only pages that are (also) available in Hungarian were examined, as the research focused on services targeting Hungarian consumers.

The second step was to analyse the content of the websites in the inventory (expert content analysis). For each website, both authors individually recorded the nine elements of the "Business Model Canvas" developed by OSTERWALDER and PIGNEUR (2010), which are the building blocks of business models: 1. consumer segments (the company's target group), 2. value proposition (how consumer problems are solved, needs are satisfied), 3. channels (communication and distribution channels), 4. customer relations (way of communicating with segments), 5. revenue sources (in exchange of the value proposition), 6. key resources (these are needed to implement the previous elements), 7. key activities (in order for the company to provide the previous elements), 8. key partners (who perform outsourced activities and provide resources), 9. cost structure (cost aspects of the other elements). In addition, we recorded the type of personal information collected from customers and the prices of the service. After the compilation of the inventory with the business model elements by both authors, possible differences were discussed and consensus was developed, thus, the business model elements were finalized.

We then explored the similarities and differences between the items in the inventory in terms of the business model, again individually. Among the canvas elements, first we reviewed the key value proposition for each business model, followed by key activities, resources, and channels, consumer segments, and finally customer relationships, revenue sources,

Table 1: Criteria and search terms considered using the Google search engine

Criteria	Search terms (Hungarian)	Search terms (English)
1. nutrition	táplálkozás, étkezés	nutrition, eating
2. personalization	személyre szabott, „személyre szabott”, egyéni, személyes	personalized, individual, personal
3. product	diéta, tanácsadás, ajánlás, terv, étrend	diet, advice, recommendation, plan, menu
4. consumer information	nutrigenomika, genomika, nutrigenetika, genetika, fenotípus, genotípus, fenotipikus, genotipikus, metabolikus egyensúly, „metabolikus egyensúly”	nutrigenomics, genomics, nutrigenetics, genetics, phenotype, genotype, phenotypic, genotypic, metabolic balance, „metabolic balance”

Source: Authors' own construction

key partnerships, and cost structure. Based on this review both authors individually identified archetypical approaches to personalized nutrition. Archetypes with their items identified by each of the authors then were compared and differences were discussed. After a consensus was achieved, final archetypes were set.

Besides the identification of business model archetypes for personalized service providers, the providers' key features are also described, primarily by basic descriptive statistics (frequencies, mean, standard deviation); average prices of providers of services at different personalization levels, however, are compared by independent samples t tests.

RESULTS AND DISCUSSION

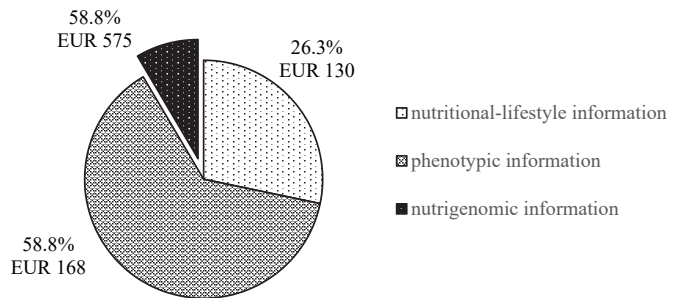
Our web searches based on the described methodology resulted in a total of 114 service providers that met all four of our predefined criteria, so these were analysed further. It is worth noting that compared to the study of RONTELTAP et al. (2013), this number of providers found with the same search methodology is significantly higher in a much smaller market than the one targeting English- and Dutch-speaking consumers (76 service providers were found by RONTELTAP et al. 2013), which suggests an increasing interest in personalized nutrition in Hungary in the last decade.

Key features of personalized nutrition service providers

The vast majority (67 or 58.8%) of the 106 providers offering clear information on personalization level provide personalized nutrition services based on lifestyle-nutritional information (supplemented by some basic personal background variables such as gender, age, and BMI) as well as phenotypic information (e.g., metabolic type, body composition, body fat, waist-to-hip ratio, blood pressure, nutritional status, blood sugar and cholesterol levels). 30 providers (26.3%) personalize their nutrition advice based on basic lifestyle-nutrition information only, and only a few (9 or 7.9%) build on nutrigenomic information. These results differ significantly from those of RONTELTAP et al. (2013), where the majority of providers (52.6%) personalized their services at the first level, while 35.5% at the second level, and 11.8% used nutrigenomics (Figure 1).

The prices of personalized nutrition counselling were examined on the basis of the price information available on the websites (92 cases), by considering the largest package of services available, and if the possibility was explicitly referred to, one health check-up/control was considered. Prices show large differences, ranging from free to HUF 381,000 or EUR 1,066 (mean: HUF 66,405 or EUR 186, standard deviation: HUF 62,851 or EUR 176). Significant differences can be found in the average prices for the three levels of personalization; similar to the findings of RONTELTAP et al. (2013), the more personal information the service provider requests, the higher the price (Figure 1). The cheapest service is counselling based on nutritional-lifestyle information only (mean: HUF 46,411 or EUR 130,

Figure 1: Distribution of personalized nutrition service providers based on the personalization level (N=106) with average prices of services (N=92)



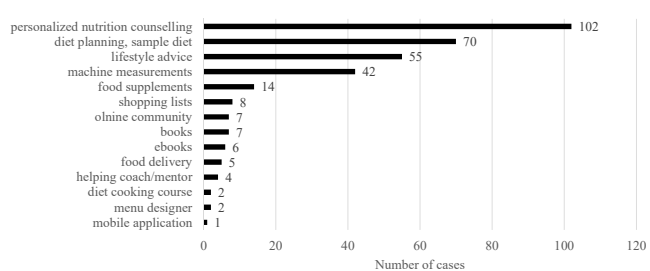
Source: Authors' own construction

st. dev.: HUF 32,064 or 90 EUR), followed by advice based on phenotypic information (mean: HUF 60,229 or EUR 168, st. dev.: HUF 49,390 or EUR 138), average prices of which, however, do not differ significantly from those of the previous level ($p=0,212$). The highest average price can be found at those providing genetically based personalized services (mean: HUF 205,500 or EUR 575, st. dev.: HUF 115,591 or EUR 323), which is significantly higher than the average prices of the other two types ($p=0.019$ and $p=0.027$, respectively).

Based on the results, it is likely that Hungarian consumers are more willing to choose a service based on phenotypic information, which is not significantly more expensive, but allows for a more precise personalization compared to purely lifestyle-based personalization, resulting in a higher level of demand for the former services. From the service provider's point of view, the fact that a number of new measurement tools providing phenotypic information have appeared on the market or become cheaper in recent years helps to adjust to demand. These factors explain the higher level of supply for phenotypic information-based services in the Hungarian market compared to the supply level found by RONTELTAP et al. (2013). There is, however, a difference in magnitude of average prices between levels 2 and 3, which can be stepped over by only a small proportion of Hungarian consumers, generating a much lower demand for gene-based personalized nutrition compared to the lower two levels of personalization.

Among the key activities, we first considered the requested personal information (see the level personalization above) and the service elements that are part of the offer. Regarding the type of personalized offers, it can be stated that most (i.e., 102) service providers offer personalized nutrition counselling and 61 of them supplement this with diet planning and sample diet compilation; 9 pursues the latter activities independently, without advice. In addition, 55 providers offer lifestyle advice in a broader sense (in some cases, including a personalized workout plan), and 8 provide shopping lists. Finally, 32 companies also offer other products and services, including food supplements, books, e-books, online community, food delivery, helping coach/mentor, menu designer, diet cooking course, and mobile application. Beside these, 42 providers offer their

Figure 2: Key activities of personalized nutrition service providers (N=114)



Source: Authors' own construction

own machine measurements, too. It should be noted that the sum of the values is higher than the 114 cases in the inventory, as many service providers offer multi-item offers (Figure 2).

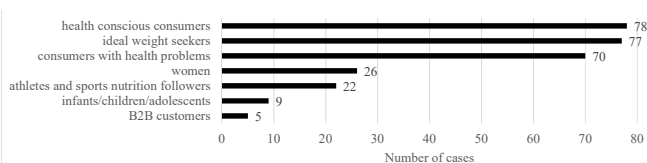
For the vast majority of companies providing personalized nutrition services (93 providers), human resources are the most important resource (most often dietary expertise (72), medical expertise (17), coaching expertise (8), and international expert background (4) and experience (4)), a significant proportion of them (21) also rely on infrastructural resources (including working with or having access to some special equipment, laboratory, testing, or kitchen), and some build on high brand value and recognition (4). Again, the sum of the values is higher than the 114 cases in the inventory, as many providers rely on a variety of key resources.

The vast majority (86 cases) of service providers use a personal channel to reach customers. In addition to or instead of this, they also consult via e-mail, webcam, telephone, website, and Facebook-page or text message. Physical products (sampling kits, books, food) are delivered by post or courier (Figure 3). Through these channels, customer relationships are managed individually by all service providers, however, in three cases the use of the service begins in groups. Out of all service providers in the inventory 30 (26.3%) come into contact with customers only once, whereas 43 (37.7%) promise one health check-up after the first consultation, and 41 (36.0%) multiple check-ups or continuous follow-ups for a few weeks/months. The sum of the values is higher than the 114 cases in the inventory, as many service providers use multiple channels to reach customers.

Seven target groups have been identified in the case of the examined service providers (Figure 3). These often did not appear as separate segments but as a combination, and such combined segments were considered for each related target group. Most providers target the segments of health-conscious (those who wish to maintain or improve health or prevent

diseases; who follow reform diets – e.g., vegetarians and vegans; and who want a more energetic life) (78 cases) and those who want to achieve their ideal weight and appearance (who wish to lose or gain weight, or to build lean muscles) (77). It is worth noting that of those wishing to achieve the ideal weight, the majority of providers focus at least on those who wish to lose weight (72). In addition, people with various health problems (such as hormonal and thyroid problems, PCO, insulin resistance, digestive problems, diabetes, food allergies and intolerances, high blood pressure, eating disorders, skin problems) is also a popular target group. The other four target groups i.e., women (in general; those wishing to have a baby; pregnant and breastfeeding mothers; those in menopausal transition); athletes and those following sports nutrition; infants, children, and adolescents; and B2B customers are much less targeted. The share of service providers targeting B2B customers, i.e., employers who purchase the service for their employees, is slightly lower in the Hungarian market than in the research of RONTELTAP et al. (2013) (6 out of 76); the low ratio indicates that the vast majority of Hungarian employers do not yet feel that it is important to provide this type of employer benefit. In addition to these segments, in 1-1 cases there could be identified other target groups (busy, wealthy individuals, those looking for premium service, and those around 30 years of age).

Figure 3: Marketing channels used by personalized nutrition service providers (N=114)



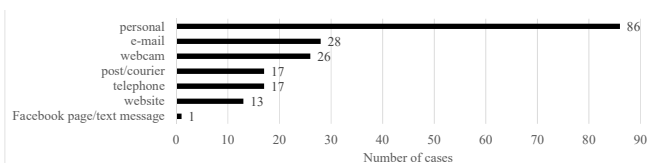
Source: Authors' own construction

Based on our results, it can also be stated that the majority of service providers target 2 or 3 segments (27 or 23.7% and 33 or 28.9%, respectively), although the number of those pursuing a one-segment strategy is also significant (31 or 27.2%). Four segments are targeted by 20 (17.5%), while the most, i.e., 5 segments are targeted by only 6 providers (4.4%). The most popular target segment combination (for 20 providers, 17.5%) includes the segments of those who want an ideal weight and those who are health-conscious and have health problems.

The revenues of personalized nutrition providers come predominantly from nutrition and lifestyle counselling. A significant part of the service providers (55, 48.2%) also provide other services with counselling in one package (e.g., control, measurements, diet planning). 55 service providers (48.2%), on the other hand, do not sell the elements of their offer (control, measurements, diet planning, food supplements, books, food delivery) in packages, but separately; some combine two items at a time (counselling and control, and counselling and diet planning (in 2-2 cases, 1.8-1.8%)), while charging a separate price for the others.

Of the examined providers of personalized nutrition services, the largest number cooperate with health care funds

Figure 3: Marketing channels used by personalized nutrition service providers (N=114)



Source: Authors' own construction

(22 providers, 19.3%), in addition, some providers partner with nutrition- and health-related actors (8, 7.0%), genetic and other testing laboratories (8, 7.0%), hospitals, clinics, and health professionals (6, 5.3%), food companies and sports equipment manufacturers (2-2, 1.8-1.8%), the National Public Health and Medical Officer Service (2, 1.8%), and pharmaceutical companies (1, 0.9%).

Business model archetypes of personalized nutrition

Using the nine elements of the business model canvas (OSTERWALDER and PIGNEUR, 2010), based on expert judgement, the following eight business model archetypes have been identified (see Appendix).

“Standing strong together”: The most important part of its value proposition is to address weight loss with community support. Community support (or a certain degree of community pressure) contributes to a higher level of self-control and following advice. In all cases, the key activities include specific diet planning (sample diets) offered together with food recipes, and in several cases the sale of food supplements and healthy food. The vast majority of providers belonging to this type base their advices on dietary-lifestyle information, while a minority on phenotypic information.

“Health club”: The value proposition of this type typically builds on a broader lifestyle change that addresses weight management, appearance, and fitness. It also includes different types of workouts as well as sales of food supplements.

“Do-it-yourself-healthy-diets”: The main value proposition in this case is some kind of diagnostic tool (e.g., questionnaire, machine measurement), with which providers collect nutritional-lifestyle and phenotypic information (in most cases metabolic type). The channel for requesting dietary-lifestyle information is usually the Internet, and personal in case of machine measurement. There are few follow-up options, which is usually initiated by the customer. The target group consists mostly of those who want to eat healthier.

“Innovative do-it-yourself-diets”: This archetype can be seen as an extension of the previous one in two ways. First, providers offer personalized advice based on genetic and novel phenotypic information (e.g., microbiome, hair tissue analysis), and second, in most cases the counselling includes broader lifestyle advice in addition to nutrition recommendations. The channel is personal for most service providers and the Internet for a smaller number of them, in addition to which genetic tests themselves are delivered through physical distribution channels (post office, courier services). Similarly to the previous type, there is limited, mostly customer-initiated follow-up in this type. The main target group typically consists of health-conscious consumers here as well.

“All the way with you”: The main feature of this type is that the service provider holds the customer’s hand all the way by providing long-time assistance and intensive communication for a successful, sustainable lifestyle change. Most of the time, this means using personal channels, but there are also a significant number of services provided over the Internet. Similarly to the previous archetype, a wide range of lifestyle advice (mostly on exercise) is offered together

with nutritional recommendations. In addition to the health-conscious customers, these providers also target those who want the ideal body weight.

“Heal with nutrition”: The most important distinguishing feature of its value proposition is the promise of healing as well as treatment for different health problems. The vast majority of providers offer nutritional advice based on phenotypic information, and some also offer diet planning. With one exception, they reach customers through a personal channel.

“All in one place”: As with the previous type, the most important part of the value proposition here is the promise of healing, but with the support of a professional health care background. The majority of service providers collect phenotypic information, while some collect only lifestyle information from customers. This information is then used as the basis for dietary advice and/or sample diets, but there is no other part of the offer. Without exception, customer relationship management is established through a personal channel; health check-up can be initiated by the customer. The majority also provide access to financing through health care funds.

“Convenient diet”: This type elevates healthy eating and lifestyle changes to the most comfortable level possible, as the providers offer food delivery, so the customer only has to eat what is prepared exactly for him/her. In addition, in half of the cases belonging to this type, part of the revenue comes from the sale of nutrition-related books. The target group consists primarily of those who wish to lose weight, and they are asked for phenotypic information.

Comparing our results to those of RONTELTAP et al. (2013), it can be noticed that only some of the business models identified here (“Standing strong together”, “Health club”, “Do-it-yourself-healthy-diets”) appeared in the previous research, therefore the Hungarian market significantly differs from the international market of eight years ago. Of the types identified in the present research, most providers fall into the “All the way with you” and “All in one place” archetypes, of which the latter business model may be the best analogy for nutrigenomics-based personalized service providers to follow, for more than one reason. First, the professional health care background needed to interpret genetic tests is available here. Second, there are only limited opportunities for follow-ups in this type, which does not increase the already high cost of gene-based nutrition services. Finally, financing through health care funds can help alleviate these high service costs. Due to the reasons above, the use of the “All in one place” business model could increase consumer acceptance of nutrigenomics-based personalized nutrition.

CONCLUSIONS

The aim of our research was to identify a viable business model for genetically based personalized nutrition in the Hungarian market. According to our results, the vast majority of services available in the Hungarian market are based on phenotypic information; gene-based personalized nutrition is only rarely found. Eight archetypical business models of

personalized nutrition have been identified, of which the “All in one place” model could be the best one to follow for providers of genetically based personalized nutrition services.

The current research is unique in its kind; no such study has been conducted in Hungary so far. To the best of the authors’ knowledge there is only one similar research (RONTELTAP et al. 2013) aimed to reveal business models for personalized nutrition services; however, it was conducted in English and Dutch, therefore service providers targeting international rather than Hungarian customers were addressed. An interesting future research direction is to examine business models of personalized nutrition in other markets and to compare the results with the results of the present and the previous research studies.

One of the limitations of the current research is that the full range of companies providing personalized nutrition services have not been examined; moreover, the sample composition is influenced by the methodology used for the Internet search. Therefore, generalizability of the results is somewhat limited; however, our results can draw attention to prevailing trends. Besides, the identification of business model archetypes relies on expert judgment and is therefore subjective to a certain degree.

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Wendel S, Dellaert BGC, Ronteltap A, van Trijp HCM. (2013): Consumers' intention to use health recommendation systems to receive personalized nutrition advice. *BMC Health Services Research*. 13: 126. <http://dx.doi.org/10.1186/1472-6963-13-126>

WHO (2018): Noncommunicable diseases. World Health Organization. <http://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>. Accessed 1 June 2018.

APPENDIX

Table A1: Business model archetypes of personalized nutrition

“Standing strong together”	
1. Dietetikusod	https://dietetikusod.hu/
2. Egészség és Diéta	https://egeszsegdieta.eu/
3. Fitmeal	https://fitmeal.hu/
4. Formami	https://formami.hu/
5. Kolly fitness blogja	https://www.kolly.hu/etrendtervezes/
6. Krámlí Anitá	http://kramlianita.hu/eletmod/
7. Medifat	http://medifat.hu/genek_es_az_egeszseg_fogyas
“Health club”	
1. Biotech USA	https://biotechusa.hu/lifestyle/
2. Elite Stúdió	http://elitestudio.hu/SZOLGALTATASOK/GENETIKAI_TaPLaLKOZaS.html
3. Quintess Egészségközpont	http://www.quintess.hu/
4. Teljesítményfokozó Team	http://teljesitmenyfokozo.hu/
5. Testszervíz	https://testszerviz.hu/
“Do-it-yourself-healthy-diets”	
1. Anya és Gyermekek Természetgyógyászat	http://www.anyagyermek.hu/szolgáltatásaink/taplalkozasi-tanacsadas
2. Babalesz	https://www.babalesz.hu/termekenység-tamogato-termek/hormonegyensuly-tanacsadas/
3. Benyovszky Orvosi Központ	https://www.orvosikozpont.hu/dietetika/
4. Dr. Kriston Ildikó	https://kristonildiko.hu/taplalkozasi-es-eletmod-tanacsadas/
5. Genetikai Táplálkozás	http://genetikaitaplalkozas.hu/
6. Mitevő	https://mitevo.com/
7. New Day Apartments	http://www.newdayhotel.eu/orvosaink
8. Preventissimo	http://www.preventissimo.hu/a-preventissimorol
9. Profitt Diéta	https://profitt-dieta.hu/
10. Répási Eszter	http://www.repasieszter.hu/
11. Rofe	https://rofe.hu/kezelesek/dietetika-eletmod-taplalkozasi-tanacsadas/
12. Táplálkozásbeállítás	https://taplalkozasbeallitas.hu/
13. Tóth Boglárka	https://tothbogi.cafeblog.hu/
14. Tudatos Egészség Centrum	https://tudatosegeszseg.hu/szolgáltatások/funkcionalis-taplalkozas-tanacsadas-szemelyre-szabva/
15. Vércsoportteszt	https://vercsoportteszt.hu/miert-fontos/szemelyre-szabott-eletmod/
16. Wáberer Medical Center	https://wmc.hu/dietetika/
17. Wellbalance	http://wellbalance.hu/genetikai_taplalkozas
“Innovative do-it-yourself-diets”	
1. Amway - Bodykey Nutrilite	https://bodykey.hu/public/
2. Arcfiatalítás Pécs	https://www.arcfiatalitaspecs.hu/gentesztek/
3. Atlas Biomed	https://atlasbiomed.com/hu/microbiome/nutrition
4. DNAnutryControl	https://taplalkozasgenetika.hu/
5. Exom	http://www.exom.hu/szolgáltatás.php?p=szszo
6. Fittgénék	https://fittgenek.hu/termek/body/
7. Gellért Medical	https://www.gellertlabor.hu/hirek/2019-01-14_taplalkozasi-genterkep
8. Hajszövetelemzés	https://hajszovetelemzes.hu/2015/04/11/testsuly-kontroll-es-tartos-fogyas-hajszovet-analizis-segitsegevel/
9. Medifitness	https://www.medicalfitness.hu/gen-elemzes/
10. New Era Genetics	http://work.gfx.hu/newera_work/nutrigenetikai.html
11. Sportgenetika	http://sportgenetika.hu/
“All the way with you”	
1. Alfa Egészségközpont	https://www.alfaegeszsegkozpont.hu/Szakterulet/Dietetika
2. Anyagcseretípus-mérés	https://anyagcseretipusmeres.hu/programok.html
3. Bence Mária	http://www.adietetikus.hu/egyeni-tanacsadas/
4. Bezzeg Ramóna	https://www.bezzegramona.hu/etrendtervezes
5. Bodywakes	https://bodywakes.hu/taplalkozasi-tanacsadas
6. Derma-Art Klinika	https://www.dermaart.hu/szolgáltatások/esztetikai-borgyogyaszat/orvosi-fogyokura
7. DiaVitas Életmód Program	https://www.diavitas.hu/programunk/
8. Dietaktika	http://dietaktika.hu/insumed-rendszer
9. Diétás étrend.hu	https://dietasetrend.hu/
10. Dietetika	https://dietoterapia.hu/

11. Egészséges táplálkozás	https://www.egeszsegestaplalkozas.com/
12. Életmód Orvosi Központ	https://www.eletmodorvosikozpont.hu/taplalkozasi_tanacsadas
13. Életmód-Navigátor	https://eletmod-navigator.hu/dietas-etrend-vagy-szemelyre-szabott-taplalkozas/
14. Fannizero	https://www.fannizero.hu/main.php
15. Feelgoodsmart	https://feelgoodsmart.com/okos-taplalkozas.html
16. Fitlife – HB	https://fitlife-hb.hu/programok/
17. Fittdiéta	https://fittdieta.hu/
18. Fittétrend	https://fitttrend.hu/
19. Freya Szalon	https://freyaszalon.hu/szolgáltatások/kategoria/taplalkozas-tipus-meghatározás
20. Genetikai Alapú Táplálkozás	https://taplalkozas-eletmod.hu/
21. Kiss Virág	https://kissvirag.com/szemelyre-szabott-etrendek/
22. Laser Dental	http://www.laserdental.hu/dietetika/
23. LifeLike Egészségügyi és Mozgásdiagnosztikai Központ	https://life-like.hu/rekreacio/
24. Málnárium	https://malnarium-vac.hu/genetikai-anyagcsere-tipus-meresrol-roviden-es-tomoren
25. Mozdulj Anyu	http://mozduljanyu.hu/
26. Naturhouse	https://naturhouse.hu/
27. Nutriexpert	https://nutriexpert.hu/
28. Nutrifit by Sophie	https://www.nutrifitbysophie.com/
29. Oxygen Wellness-Fitness	https://oxygenwellness.hu/taplalkozasi-tanacsadas/
30. Perjes Kinga	https://www.perjeskinga.com/tanacsadas.html
31. Shape Bakery	https://shapebakery.hu/szemelyre-szabott-etrend-tervezes/
32. Sportkontroll	https://sportkontroll.hu/etrendbeallitas/

“Heal with nutrition”

1. Aranytű rendelő, Szabó Richárd dietetikus	http://aranytu.hu/?cat=11
2. Greff Brigitta	https://greffbrigitta.hu/
3. Hormontanácsadás	https://www.hormontanacsadas.hu/tanacsadas/arak
4. Madách11 Magánrendelő	http://www.madach11.hu/
5. MeDoc	https://medoklinika.hu/szolgáltatásaink/dietetika
6. Modiet	https://moderndietetika.com/tanacsadas/
7. Paleo Medicina	https://paleomedicina.com/hu/blog/2015/10/letezike-egyeni-anyagcsere-tipus-szemelyre-szabott-etrend-taplalkozasbeallitas
8. Physio Timi	https://www.gerinctorna-reflexologia.hu/hormonegyensuly-taplalkozasi-tanacsadas/
9. Tenuitas Egészség Stúdió	http://tenuitas.hu/arlista/
10. Vastagbél.hu	http://vastagbel.hu/index.php/szolgáltatás/taplalkozás
11. Your Health Academy	https://yourhealth.store/taplalkozasiprofil/

“All in one place”

1. Aranyklinika	https://aranyklinika.hu/szakrendelesek/dietetika/
2. Árvai-Barta MED Magánklinika	https://arvai-barta.hu/dietetika
3. Budai Corvin Orvosi Magánrendelő	http://www.corvinorvosirendelo.hu/dietetika_/
4. Budai Egészségközpont	https://bhc.hu/szolgáltatásaink/szakrendelesek/dietetika/
5. Budai Endokrinközpont	https://www.endokrinkozpont.hu/dietetikai-tanacsadas
6. CMC Déli Klinika	https://deliklinika.hu/szakrendeleseink/dietetika/
7. Da Vinci Magánklinika	https://davincimaganklinika.hu/hu/szolgáltatásaink/dietetika
8. Duna Medical Center	https://www.dunamedicalcenter.org/hu/szakterulet/dietetika
9. Endocare	https://endocare.hu/dietetikai-tanacsadas/
10. Endomedix	https://gasztroenterologia-kozpontok.hu/vizsgalatok/dietetikai-tanacsadas
11. Erzsébet Fürdő Gyógyászati és Szűrőközpont	https://www.erzsebetfurdo.hu/rendeleseink/dietetika/
12. FirstMed	https://firstmedcenters.com/hu/szakrendelesek/
13. For Life Medical Center	https://forlifemedical.hu/hu/szolgáltatások/dietetika-szakrendeles
14. Geomedical Egészségügyi Központ	https://geomedical.hu/service/dietetika/
15. IGD klinika	https://igdklinika.hu/dietetikai-szaktanacsadas/
16. Kelen Kórház	https://kelen.hu/szakorvosi-konzultacio-es-szeklet-genomikai-vizsgalat/
17. Maternity Szülészeti és Nőgyógyászati Magánklinika	https://maternity.hu/maternity-rendelo/további-szakrendelesek/dietetika/
18. Medicover	https://medicover.hu/szakrendelesek/dietetika/
19. Mentaház	https://mentahaz.hu/szakrendelesek/felnott-szakrendelesek/dietetika
20. Oktogon Medical Center	https://www.oktogonmedical.hu/dietetika
21. Oliva Med Magánklinika	https://olivamed.eu/szakrendelesek/dietetikai-taplalkozasi-szaktanacsadas

22. PrevMed	https://prevmed.hu/home/
23. Rózsadomb Medical Center	https://r-medical.hu/ir-ambulancia-az-inzulinrezisztencia-korszeru-es-komplex-kezelese
24. Sanitas Corporis	http://www.sanitascorporis.hu/etmod-terapia/
25. Sportorvosi Központ	https://www.sportorvosikozpont.hu/teljesitmeny-optimalizalas/sporttapolkozasi-tanacsadas
26. Versys Clinics	https://versysclinics.com/szakteruleteink/dietetika
27. Vitalorg	http://vitalorg.hu/project/dietetika/

“Convenient diet”

1. Bocsi Viki	https://bocsiviki.hu/hu
2. Energiakonyha	https://energiakonyha.hu/rolunk/
3. Metodic	https://metodic.hu/szolgaltatasok/
4. Naturwell	http://www.naturwell.hu/index.php?page=20

Source: Authors' own compilation