



**NATIONAL OBSERVATORY FOR LIVING WITH DIGNITY
& NATIONAL CENTRE FOR FAMILY RESEARCH**

ACCESS TO HEALTHY, CLEAN,
AND FAIR FOOD

AN EXPLORATORY STUDY OF THE MALTESE SCENARIO

National Observatory for Living with Dignity
& National Centre for Family Research

Access to Healthy, Clean, and Fair Food
An Exploratory Study of the Maltese Scenario

The President's Foundation for the Wellbeing of Society
SAN ANTON PALACE
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This report was prepared by the National Observatory for Living with Dignity and the National Centre for Family Research, as part of the President's Foundation for the Wellbeing of Society.

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Foreword from Her Excellency, the President of Malta



Food is an essential element to our very humanity, nourishing our individual and collective wellbeing, while connecting people as part of a wider tapestry of food systems. It is a fundamental human right, fuelling social relationships and allowing each and every person to live with the basic dignity which they deserve, along with the opportunity to earn a dignified living. If we wish to uphold the inalienable rights of every human being, we must speak not only of access to food, but *equal* access to food, which is healthy and capable of nurturing wellbeing in its most holistic sense. This is the underlying aim of the United Nations' Sustainable Development Goal 2, which aims to end hunger, achieve food security and improved nutrition, and promote sustainable

agriculture by 2030. Moreover, target 2.1 specifically aims to secure universal access to safe and nutritious food all year around, with particular attention given to the poor and to people in vulnerable situations.

Recent statistics show that 60% of the adult population in Malta is either pre-obese or obese, this being the highest rate among the EU Member States. Incentives for people to adopt a healthier lifestyle are rightfully encouraged, yet it is simultaneously important to contextualise this approach and acknowledge that opportunities to make healthy food choices are not equally available, despite its fundamental importance to human dignity and wellbeing. Various studies indicate that those coming from a lower socioeconomic background are at a greater risk of suffering from poor physical and mental health, and that families with lower socio-economic status have a propensity to consume more energy-dense foods than their higher income counterparts. Indeed, the most recent Survey on Income and Living Conditions for Malta indicate that 25,893 people in Malta currently cannot afford a meal with meat, chicken, fish, or a vegetarian equivalent every second day, potentially compromising the nutritional health and wellbeing of a significant proportion of the population. We must find a way, as a nation, of ensuring that people's basic human rights are respected at their most fundamental level, and that no person is robbed of the opportunity to make positive choices for their own wellbeing. By and large, the circumstantial absence of such a choice is an obstruction to wellbeing in and of itself.

I would like to take this opportunity to thank the National Observatory for Living with Dignity, and the National Centre for Family Research, both of which are research entities within my Foundation for the Wellbeing of Society, for their initiative to explore this very important issue. Their collaboration on this research is not only a testament to how we should be considering these issues in a cross-cutting way, but it provides much-needed impetus for these issues to remain at the forefront of our thoughts and action. May we take the cue to further this conversation, and explore other ways of coming together in a bid to enhance the wellbeing of our families, and of each and every person in the country.

H.E. Marie-Louise Coleiro Preca
President of Malta

A Message from the Director-General



Access to clean, fair, and healthy food is a social justice issue – The latter cannot be secured without the former. Social justice implies fairness, equal treatment, and respect for human beings, whereby opportunity and privilege are equitably applied, in recognition of the fundamental rights and inherent human dignity of all. Social justice implies the freedom and possibility to make choices which are not constrained by circumstances of poverty or precarity, and without being unfairly hindered in the ability to take decisions which are necessary for wellbeing.

The right to food is an issue which connects us in our very humanity, and bridges Malta with the wider world in a multitude of ways. Indeed, unequal access to food exists not only within our islands, but on a more global level, instigating the movement of people and impacting significantly upon the movement of food itself. The deprivation of such fundamental human rights fuels forced displacement, compelling people to seek the dignity which is rightfully theirs as human beings, in places far from where they might consider home. Furthermore, beyond the ability to meet such basic human needs, we must also reflect upon food rights in terms of the myriad of actors in the local and international food chain, ensuring that the food production and supply process is socially equitable in and of itself, offering fair compensation for the work that it involves.

All of this takes place within a context whereby the global challenges posed by climate change are more pressing than they have ever been, necessitating effective, immediate, and collective action. This is reflected in the United Nations Global Goals for Sustainable Development, which highlight the need to combat climate change as one of the three main tenets of the 17 goals, alongside ending poverty, and fighting inequality. Access to food touches upon all three, which in turn provide the basis upon which the targets for 2030 have been set. It is indeed a plan which requires the participation of each and every person, working inclusively towards a future where wellbeing belongs to all, and no person should struggle to have their basic food needs met, nor be exploited within the process of supply and production.

The President's Foundation for the Wellbeing of Society is committed to bringing people together within an atmosphere of respect, and in support of the SDGs, to find innovative ways of addressing existing impediments to human rights and wellbeing. I am grateful to the experts within the National Observatory for Living with Dignity, and the National Centre for Family Research, for creating a valuable opportunity for a discussion on equal access to clean, fair, and healthy food.

Thanks to the sustained support of Her Excellency, and all of our collaborators, the President's Foundation for the Wellbeing of Society will continue to endeavour to play an essential role in the Maltese islands and beyond - to create, nurture, and celebrate respectful spaces for dialogue, for the promotion of human dignity always, and in all ways.

Dr Ruth Farrugia
Director-General
President's Foundation for the Wellbeing of Society

Introduction



For some years now, a strong global movement has emerged advocating for recognition of the complexity of food systems and the need for a paradigm shift in order to strengthen the voice and role of all players in the food supply chain for the benefit of human and planetary wellness. In 2014, the United Nations' Special Rapporteur on the right to food, Olivier De Schutter, called for a radical and democratic design of the world's food systems suggesting that "the policy environment

must urgently accommodate alternative, democratically-mandated visions."¹ More recently, in May 2018, during an Agrarian Reform Fair of the *Movimento dos Trabalhadores Rurais Sem Terra*, its national coordinator João Pedro Stedile pointed out the need "to meet the necessities of all people... solving the problems of landless families and the historical inequality of our society, as well as advancing with the main paradigm which is the production of healthy food for the whole society."² At the same meeting, nutrition activist Patrícia Jaime reiterated that "Healthy eating is more than nutrient intake, it is understanding what we are eating, where our food came from, who produced it, and with it we strengthen a food system that promotes social justice".³

This research study is a reflection on such a food systems paradigm as applied to Malta. It was inspired by two United Nations' basic human rights for individuals: the right to a standard of living adequate for the health and wellbeing of oneself and of one's family, including food (Article 25), and the right to just and favourable conditions of work and just and favourable remuneration (Article 23). It was also inspired by the President's Foundation for the Wellbeing of Society's focus on the importance of living with dignity, of family wellness, of a greater understanding of people's needs and concerns, as well as its support of the United Nations' Sustainable Development Goals, including those related to poverty, food security, health, and sustainable production and consumption.

Food and eating are integral to a Mediterranean Diet culture and Malta is no exception. Traditionally, this diet has been valued both for its health value and sustenance role, but also as an important factor in the local natural landscape, cultural heritage, identity formation, and conviviality with family and friends. Sadly, in the past few years we have been hearing about the demise of the Mediterranean Diet, especially among the younger generations of the Mediterranean region. Similarly, the Maltese farming and fishing communities are also dwindling. At the same time, however, European and Maltese citizens are taking a greater interest in the food they eat and how and where it is produced. For example, more than one million citizens signed the European Citizens' Initiative « STOP Glyphosate » in 2017 over concerns on the use of pesticides.⁴

1 Democracy and diversity can mend broken food systems: final diagnosis from UN right to food expert (<http://www.srfood.org/en/democracy-and-diversity-can-mend-broken-food-systems-final-diagnosis-from-un-right-to-food-expert>)

2 The Fair of the MST gathers thousands in meeting about healthy food (<https://viacampesina.org/en/the-fair-of-the-mst-gathers-thousands-in-meeting-about-healthy-food/>)

3 ibid

4 The European Citizen's Initiative: Ban glyphosate and protect people and the environment from toxic pesticides

Given this backdrop, this research study set out to explore access to quality food in Malta, where quality was framed in terms of healthy, 'clean' and fair as originally described in the Slow Food manifesto.⁵ Thus, this research took a qualitative real world approach where different players along the food supply chain were involved in different methodologies to uncover issues based on access to quality food. Earlier studies by the PFWS have shown that income inadequacy and health problems were correlated with relationship satisfaction among couples⁶, whilst another local study showed that in low-income families, approximately 50% of an identified minimum budget for a decent living would be required to buy food for healthy meals for the family⁷. Clearly, the quality of the food consumed has implications for the wellbeing of all, including couples and families.

Yet, access to good quality food is determined by multiple factors on an individual, household, community and global level. In fact, this research did not only consider the perspective of the consumer, but it also sought to better understand the needs and concerns of local food producers; in particular, their vulnerabilities, frustrations, barriers and facilitators in supplying food to suit the demands of Maltese consumers whilst ensuring their own livelihoods.

This study was therefore exploratory in nature. It was the first holistic attempt to reflect, think and research about access to healthy, 'clean' and fair food for all the Maltese. From the outset, it was recognised that if food is part of our individual and collective identity, and therefore intrinsically linked with our wellbeing, then one needs to involve all players in debates and inquiry around food access. This was the specific aim of the study, and given that it was jointly led by the National Observatory for Living with Dignity and the National Centre for Family Research, there was a synthesis of vision which helped to enrich the research goals, methodology, and discussion of findings.

This research study is just the beginning. On the one hand, it has offered further insight to perceptions, motivations and challenges around provision and access to quality food in Malta. On the other hand, it attempts to put forward new questions that can stimulate new debates and research. It is also an invitation to each one of us to invest in what Wendell Berry calls the agricultural act of eating responsibly, with understanding and gratitude, whilst seeking an "accurate consciousness of the lives and the world from which food comes".⁸ We hope that the recommendations made in this report for possible actions, policies and future research will be taken on board by the entities concerned. *Mens sana in corpore sana* needs to be ensured for both consumers and producers. May our individual and collective wellbeing be enhanced through healthy, 'clean' and fair foods!

Prof. Suzanne Piscopo
Member of the
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Dr Vince Caruana
Member of the National Observatory
for Living with Dignity

(<http://ec.europa.eu/citizens-initiative/public/initiatives/successful/details/2017/000002/en?lg=en>)

5 Good, Clean and Fair: the Slow Food Manifesto for quality (http://slowfood.com/filemanager/Convivium%20Leader%20Area/Manifesto_Quality_ENG.pdf)

6 The President's Foundation for the Wellbeing of Society, National Centre for Family Research. (2016). Sustaining relationships: couples and singles in a changing society. Attard, Malta: PFWS

7 Piscopo, S., McKay, L. and Bonello, A. (2016) A minimum essential budget for a decent living. Floriana, Malta: Caritas

8 Wendell Berry: The Pleasures of Eating <https://www.ecoliteracy.org/article/wendell-berry-pleasures-eating>

Executive Summary

Background: Malta, like the rest of Mediterranean Europe, faces a dramatic shift away from the traditional Mediterranean diet as the global food industry has removed prior barriers to food choice while introducing new ones pertaining to an overall loss in the varieties of crop and livestock. As rates of obesity and other non-communicable diseases continue to rise, especially in vulnerable groups, understanding accessibility towards a healthy diet becomes crucial. To avoid subjectivity, the terms ‘healthy’, ‘clean’, and ‘fair’ have been defined within the context of sustainability, given that food accessibility is ultimately tied to the wellbeing of both the individual and their various environments.

Research question: This study aimed to set the foundation for the investigation of food access in Malta by exploring the current local food system and consumers’ and producers’ perceptions in order to determine what specific issues should be addressed in future research. The main research question was: Can good quality, healthy and clean food be also fair, i.e. at a price accessible to low income consumers, without compromising on fair conditions and a decent pay for producers?

Data collection: A qualitative research paradigm was chosen and conducted over four phases. The first phase involved 30 semi-structured interviews of experts and stakeholders in the food sector. The second phase comprised ethnographic market observations in which the researcher noted consumer food choices, interactions with staff and family members, and individual physical behaviour. Phase three consisted of two market interventions in which the researcher recorded observations of consumers approaching the pop-up healthy foods stand run by a small catering company that presented foods which were agreed upon in advance with the lead researchers. Two focus groups were then organised in phase four; one with farmers and the second with female consumers.

Main findings: Two theoretical concepts emerged from thematic analysis: internal (personal) factors and external (environmental) factors, which were further broken down into major themes: money, attitude, economy, education, information, and culture. The identified themes revealed several gaps in communication, including between farmers and consumers, media and academics. Another gap exists between what professionals in the food sector believe on consumer food choice and the observed behaviour of the consumers themselves. Time is seen as a significant barrier to engaging with healthy, clean and fair foods, especially in the realm of home-cooked meals. Additional barriers may include the presence of information overload, information vacuums and anxiety, although some forms of observed anxiety are positive and lead to good decision-making in relation to food choice.

Main recommendations: More research needs to be done on the disconnect between the consumer and the farmer, common misperceptions and subjective ideas behind healthy, clean and fair foods, and whether information overload, information vacuums and anxiety pose a significant threat to food choice and accessibility. Several research-in-action studies have been proposed in this vein, which also aim to explore consumer food valuation. Furthermore, given that the effectiveness and limitations of past and current government food-related policies are not well understood, and that mere information-giving does not automatically lead to positive behaviour change among consumers, it is imperative that any future research and actions consider involving all pertinent players, integrate evaluation processes, and plan for sustained infrastructural, capacity-building and policy strategies.

Abbreviations and Acronyms

EEA:	European Environment Agency
EEC:	The Council of the European Union
EU:	European Union
EUFIC:	European Food Information Council
HCF:	Healthy, clean and fair (food)
HFSS:	High fat, sodium and sugar (foods)
MD:	Mediterranean diet
HPDPD:	Health Promotion and Disease Prevention Directorate
MEE:	Ministry of Education
MEYE:	Ministry of Education, Youth and Employment
MESDCC:	Ministry for the Environment, Sustainable Development and Climate Change
PFWS:	The President's Foundation for the Wellbeing of Society
WHO:	World Health Organisation
WTP:	Willingness-to-pay

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1. Introduction

Since the mid-twentieth century, an increasingly globalised food market has led to the emergence of new food supply chains and food environments in developed countries, including Europe (WHO, 2018a). This has widened the scope of food choice and availability, with past restrictions such as seasonality, shelf-life and location no longer considered to be limiting factors (TEEB, 2018; Ingredion Consumer Research, 2014), though this increase in food choice has been compromised through an overall loss of varieties of crop and livestock produced. In addition, the digital and social media have contributed to a heightened preoccupation in what food is consumed and how it is produced (Rousseau, 2012; Russo and Simeone, 2017). This interest and related motivations are in turn linked to myriad social, educational, political, environmental, and economic factors which play a significant role in food choice, availability and security (Contento, 2011; HLPE, 2017; WWF, 2013).

With respect to Malta, understanding new trends and changes regarding food intake also means taking a closer look at the relationship with the traditional Mediterranean diet (MD). In recent decades, studies suggest that local food consumption has moved away from the MD towards less healthy, high fat, sodium and sugar (HFSS), Western foods (Bellizzi, 1993; Cavaliere et al., 2018; da Silva et al., 2009; HPDPD, 2014; Mizzi, 1995; Tessier and Gerber, 2005; Variero et al., 2009). Whilst the definition of MD varies depending on the country and geographical location, the following criteria are largely agreed upon: high consumption of plant-based foods, including vegetables, fruits, seeds, legumes, nuts and cereals; very low consumption of dairy products, which are mainly cheese and yoghurt; low consumption of red meats; high consumption of fish; olive oil as the main source of fat; and moderate consumption of wine with meals (Bach-Faig et al., 2011; da Silva et al., 2009; Kastorini et al., 2011; Serra-Majem et al., 2004; Sofi et al., 2008; Tessier and Gerber, 2005; Vareiro et al., 2009). It is considered to be a healthy, environmentally-friendly and sustainable choice for Mediterranean countries (Burlingame and Dernini, 2011; Cavaliere et al., 2018; da Silva et al., 2009; HPDPD, 2014; Pace, 2016). Dernini et al. (2017) further describe how this healthy diet is correlated with a sustainable lifestyle and sustainability outcomes. This may not come as a surprise, given that the diet emerged organically from what was locally available. However, Malta's shift towards more Western eating habits, with subsequent consequences on health and demands on the food supply system (HPDPD, 2014), has led the authors of this study to question whether everyone has the same access to the healthier MD and how the local food system is impacted, including as it pertains to decent working conditions for producers.

1.1. *Understanding the food system approach*

To begin better appreciating the complexity of food accessibility and food choice, food systems must be understood. A food system includes all aspects of production, management, consumption and propagation of food, including consumer-related behaviour (Dangour et al., 2017; HLPE, 2017). Indeed, according to the European Environment Agency (EEA, 2017), different players will have different relationships with food.

“From the perspective of the consumer, the primary function of the food system may be to supply food of the desired type, quantity, quality and price. From the perspective of the farmer or food processor, the food system’s main function may be as a source of employment and earnings. For rural and coastal communities, the food system may play a key role in social cohesion, use of land and marine space, and cultural traditions.”
(p.6)

Thus, one can say that within a food system, the players have different goals. The issue is whether these goals are aligned to provide suitable and just outcomes. Subscribing to the EEA’s (2017) concept, ideally the players in a food system strive for a common vision where the ultimate goal is to ‘live well’.

To ‘live well’ means that the food system is optimising outcomes in terms of food and nutrition security and social wellbeing in an equitable way and contributing to the provision of good livelihoods, healthy, safe and nutritious food, and communities and culture. To live ‘within the limits of our planet’ means that the food system is optimising outcomes in terms of ecosystem health, contributing to ecosystem resilience, rather than degrading biodiversity, ecosystem services and the natural resource base. (p.6)

In other words, for a food system to function efficiently, interdisciplinary action from all actors is required, from combating biodiversity loss, to implementing government policies that promote healthy eating and climate change mitigation (Dangour et al., 2017; HLPE, 2017).

An in-depth report by Hawkes, Grace and Thow (2015) delved into the myriad ways in which food systems can be strengthened by various foundational strategies, such as helping to bridge the communication gap between consumers and local food producers, or initiating interventions focused on the political economy to give communities a voice in policy reform. Such reform is necessary to move towards a globally democratic food society in which all stakeholders are able to operate sustainably and responsibly, ensuring people’s health and wellbeing (Hawkes et al., 2015). Governments can play an especially important role in this regard, for example, by incentivising healthy food retailers to enter low income markets, regulating nutrition labelling, investing in infrastructure that will allow for the production of healthier foods, taxing unhealthy food and subsidising healthy foods to increase availability and affordability (WHO, 2018a). The impact of these measures will differ based on country, food and players involved; hence the need for multiple strategies (Muhammad et al., 2017).

1.2. A closer look at Malta’s food system

Malta’s size has undoubtedly influenced its past and current food system. As a small island nation in the Mediterranean region, with limited natural resources, the majority of foods are imported and exportation of local food products is minimal (HPDPD, 2014). Consultation with key individuals in the agriculture sector (Carabott, 2017) and local reports (Atriga Consult, 2018) indicate that this limitation has negative impacts on the food system. The number of local full-time farmers is decreasing; and

farmers are becoming an ageing population with very few young people continuing in their parents' footsteps, or taking up this occupation (Grech, 2018). Various local food-related policies, strategies and action plans have outlined the need and targets for appropriate structures and a multi-disciplinary approach with relevant stakeholders to move the country as a whole towards a healthy, sustainable food supply and dietary pattern (HPDPD, 2014; MESDCC, 2018). Although there has been some progress in certain areas, such as the implementation and monitoring of the Healthy Eating Lifestyle Plan in schools (MEYE, 2007; NAO, 2011), a fully-functioning comprehensive and integrated national food and agriculture policy, where the EEA's (2017) concept of a food system for 'living well' is implemented, is still to be conceived.

1.2.1. How Malta abandoned the Mediterranean diet

Malta's location in the Mediterranean has made it historically and currently a prime spot for trade and immigration. For example, two centuries of British colonialism played a huge role in dietary habit and taste formation (Tessier and Gerber, 2005). During their lengthy occupation, the British introduced foods such as jam tarts, cream cakes and Sunday roasts, which are still staples in many Maltese households. In addition, the demographics of the population have changed considerably in recent years mainly as a result of Malta's entry into the EU and the subsequent influx of workers from mainland Europe. This immigration has influenced local food choice and availability, with casual observation indicating that many food and dining outlets cater for the dietary norms of these newcomers, and very likely also contribute to the shift away from the MD in the general population. All of this is exacerbated by the phenomenon of a global food supply system with a myriad of ingredients being made available, especially through international supermarket chains selling an abundance of non-Mediterranean and unhealthy food options (HPDPD, 2014).

Historically, Maltese food and food choice were largely determined by religious activities and seasonal produce, but the relevance of these two factors has decreased considerably over time (Mangion, 2008). According to the HPDPD (2014), several changes have taken place with respect to food availability since the 1990s:

- **Increased variation** (for example, wholemeal bread and skimmed milk introduced into the market);
- **Seasonal foods available all year round;** and
- **Increased availability of unhealthy foods** (for example, foods high in trans fats and added sugars).

Increased imported goods did not only bring a greater array of unhealthy food to Malta, but also made meat and animal fats more accessible and affordable. Since the 1960s, the consumption of meat, animal fats and vegetable oils has increased, whilst the availability of traditional foods like legumes has decreased in Mediterranean Europe (Variero et al., 2009).

Yet, aside from unhealthy foods becoming widespread and easily accessible, there are several other theories as to why the Maltese have moved away from the MD. Mifsud (2009) surveyed 113 Maltese vendors on their food selection and concluded that although most believed traditional food was important, especially for tourists,

it was more lucrative to sell non-Maltese fast food. In fact, traditional Maltese foods, such as rabbit stew and snails, were typically absent from festas – a popular and traditional Maltese event – and still are (Micallef, 2017). Yet, in a study by Dimech, Caputo and Canavari (2011) on understanding Maltese consumer attitudes towards vegetables and fruit, most of the 881 respondents felt that Maltese produce, in comparison to foreign, is better in taste, freshness and authenticity. There is perhaps a discrepancy, therefore, between what the consumers report and what vendors believe would sell. However, even if most Maltese appreciate the ‘quality’ of local produce, this is not enough of an incentive to adhere to the MD.

1.2.2. Health and economic factors

In the 1980s, the Maltese health authorities began addressing the increase in population overweight and obesity and other non-communicable diseases related to an unhealthy diet (Bellizzi, 1993). Despite their efforts to promote awareness through educational campaigns on healthy eating and physical activity, the problem has since then still grown (Cuschieri et al, 2016). Out of the 28 EU Member States, Malta suffers from the highest number of overweight and obese individuals, with close to two thirds of the adult population falling into the categories of pre-obese or obese individuals (PwC, 2017). Over 30% of Maltese children are considered overweight or obese (WHO, 2018b). Furthermore, obesity tends to be more pronounced in the lower socio-economic bracket, given individuals in this group tend to consume more energy-dense foods (PwC, 2017). It is likely that obese members of vulnerable groups, including children, the elderly and the unemployed, have a higher risk of falling into poverty (HPDPD, 2014), thus, bearing additional economic costs. Indeed, international research suggests that being a member of a vulnerable group with low finances may correspond with an unhealthy diet, partially due to the belief that unhealthy foods are cheaper and more accessible than their healthier counterparts (Ball et al., 2009; Bihan et al., 2010; Kern et al., 2017; Shanks et al., 2016; Williams et al., 2014).

A study by Piscopo, McKay and Bonello (2016) -- the Minimum Essential Budget for a Decent Living -- determined a minimum cost to meet the physical and socio-emotional needs necessary for survival. The study portrayed that in low-income households, following a healthy, Mediterranean-type diet in adherence with local dietary guidelines, would be the greatest expense, accounting for 45% to 54% of the budget. A seven-day healthy menu (consisting of three meals and two snacks per day) would cost 517.56 Euro per month for two adults and two children, even considering that some foods were given for free by the government to low-income families. The study concluded that the national minimum wage was not enough to support a household with two dependent children to live ‘decently’. This implies that such financially insecure households may not be able to afford healthy food and thus, resort to buying unhealthy, cheaper foods or reducing costs from other areas. A similar comparative Europe-wide study which priced a healthy food basket, but without social assistance, had found that in Malta the monthly expense was 597.55 Euro for a two adult and two children household (Goedemé et al., 2015).

Considering the interaction between the nutritional value of a population’s diet and health, obesity-related healthcare costs are a significant national burden in Malta (PwC, 2017). Over half of these costs are direct, including hospital care and pharmaceuticals. When adding indirect costs, such as mental illness stemming

from poor health and reduced quality of life, an analysis from the European Health Interview Survey 2015 estimated €36.3 million in total obesity-related costs for 2016 for Malta (PwC, 2017).

1.3. Healthy, clean and fair: the three pillars of 'quality' food

In discussing food systems and wellbeing, it is natural to think of quality as an important feature of food. But what does the term quality mean in the context of "good quality food"? Despite the difficulty in determining and attaining quality, one can propose that quality is perceived as a positive term, typically associated with health and aesthetic appeal, but which could encompass much more. For the purposes of this report, quality is therefore equated with the following features: foods that are healthy, clean and fair (later on referred to as 'HCF' foods) (Slow Food, 2007) and defined below based on a literature search and discussions between the researchers and experts in this field.

1.3.1. Healthy

It is undisputedly challenging to ascertain the degree to which our environment, marketing and education influence what we conceptualise as healthy and to quantify how lifestyles and beliefs factor into decision-making. However, studies have shown that people's perception of what is considered healthy food or a healthy diet repeatedly address the following principles: eating vegetables and fruit, having a balanced and varied diet, eating fresh, unprocessed meats and eating in moderation (Margetts et al., 1997; Paquette, 2005; Van Loo et al., 2017). This coincides with the current Maltese National Dietary Guidelines based on the Healthy Plate model (Pace, 2016).

The introduction of genetically modified organisms (GMOs), an upsurge in the use of palm oil and targeted marketing to promote particular foods for reasons unrelated to health -- among other recent changes to the food system -- often leave consumers misguided as to what is actually 'good' for them (Hamilton, 2005; Jackson, 2010; Jackson et al., 2012; Pollan, 2007). Adding to the numerous yet unresolved questions on food, nutrition and health, are debates, for example, on the appropriate amount of salt and saturated fats in our diets; ingredients which for many decades were largely considered unhealthy foods to be kept at a minimum (Alderman, 2002; Kurlansky, 2003; Siri-Tarino et al., 2010a; Siri-Tarino et al., 2010b). Furthermore, the term 'diet' itself is often misleading (Foxcroft, 2011; Mann et al., 2007). In Malta, adults, adolescents and even children were found to narrowly equate diet with a strategy to manage illness or lose weight (Borg Mifsud, 2011; Piscopo, 2004).

In consideration of various unknowns regarding nutrition-health interactions and the difficulty in measuring certain food features in the context of 'healthy', in this report, healthy food will be defined on a diet level as follows: *a balanced, varied and primarily plant-based sustainable diet, that involves moderate food consumption and has minimal to no added sugars, trans fats and ultra-processed ingredients.*

1.3.2. Clean

Clean eating is a new phenomenon that has developed from the organic food movement and increased public concern over food choice (Donini et al., 2004; European Commission, 2012; Zink, 1997). More specifically, the clean eating movement grew due to an increased awareness over what we eat and how this affects us during an age in which organic became industrialised and limited to a particular set of legal criteria (Donini et al., 2004; EEC, 2007; Hamilton, 2005; Pollan, 2007). Individuals and NGOs have become more vociferous over food choice and has pushed corporations to deliver products that are supposedly “cleaner” (Berry, 2017). Simultaneously, a dark shadow has also been cast upon the trend as cases of Orthorexia nervosa -- a disorder defined by an obsession over healthy foods -- are being linked with the clean eating phenomena (Brytek-Matera, 2012; Donini et al., 2004; Wilson, 2017). This obsession often stemmed from self-claimed nutritionists, and popular “clean eating gurus” with online blogs and bestseller books, resulting in misinformation and potentially harmful marketing among consumers.

Asioli et al. (2017) explored nearly 200 papers on subjects pertaining to the clean eating trend and clean labelling. Their search, focused mostly on research published in the last six years, included terms such as ‘organic’, ‘natural’, ‘artificial’ and ‘clean label’. They concluded that for marketing purposes, clean labels should focus on ‘free from’ in relation to additives and artificial ingredients whilst attempting to decrease consumer misconception. Indeed, a number of researchers argue that ‘clean’ means there has been no manipulation of any kind upon the vegetable or fruit; that it has grown naturally without being sprayed with pesticides or undergone modification of its genetic code (Asioli et al., 2017; Berry, 2017; Chadwick, 2000; Osborn, 2015). The concept of clean food has also been popularised through the Slow Food movement whose Slow Food Manifesto for Quality emphasises that the environment needs to be respected, sustainable practices of farming and animal husbandry need to be considered, and the ecosystems and biodiversity protected at every stage of the agro-industrial production chain (Slow Food, n.d.).

Speaking about food, other researchers have opined that clean is related to how it makes the individual feel after they have eaten the given food; implying that feeling bad may be equated with dirtiness (Donini et al., 2004; Musolino et al., 2015). ‘Clean’ has also been linked to the wellbeing of our surrounding environment and people which, in turn, correlates with psychology in that what we ingest can make us feel “good” or “bad” (Asioli et al., 2017). Food produced unethically, for example, paying coffee bean farmers below minimum wage to maximise profits, becomes “unclean”.

Perhaps due to the complexity of this modern dietary concept, there is currently no legal definition of a clean label (Osborn, 2015). Whilst at least one study has tried to offer some insight in relation to labelling (Ingredion Consumer Research, 2014), Osborn (2015) argues that there is much discrepancy, both among consumers and food manufacturers, about what a clean label is and advises that the clean trend should be turned into a philosophy rather than equated with strict rules.

In this vein, the term ‘clean’ — referenced throughout this study in relation to foods rather than strictly associated with labelling — will be defined as: *sustainable foods that are less artificial and processed, are environmentally-friendly, consider ethics in their production, as well as having positive psychological impacts upon the consumer.*

1.3.3. Fair

People have long known that our health is not just about the physical state, but also the mental, emotional and social. In fact, it is impossible to disassociate the four. The emergence of the fair trade movement is in some ways a recognition of this need for a broader perspective on health and wellness, and also an attempt to secure the wellbeing and livelihoods of farmers and food producers who live in economically-developing countries. Doing so not only addresses concern for welfare, but also acknowledges that as people become more aware of what they eat, they begin considering ethics and the consequences of their food choices. Yet, fairness is not only concerned with the individual, but also with communities, the environment and economy, especially with respect to fair trade. Thus, although not so easily achieved and convoluted, fair trade aims to provide individuals and families belonging to food production a means to live beyond poverty lines (Bacon, 2005; Walton, 2010).

The concept of fair has also been linked to our approach to eating. According to Carlo Petrini, founder of the Slow Food Movement, instead of merely consuming quickly without thinking, we should appreciate food in the context of taste, location and culture (Petrini, 2007). In his analysis of the Slow Food Movement, Schneider (2008) argues that its guiding principles of good, clean and fair bring together scientific and traditional knowledge. The Slow Food movement is therefore a mediator between what science labels as healthy and the traditions that have persisted for centuries and which are now threatened to extinction. In this sense, what is fair must also consider the ability for farmers and food producers to sustain traditional practices.

This report defines 'fair' in direct relation to food and indirectly correlated with trade as follows: *foods that are produced sustainably and ethically in regards to the farmer and the producer, in which livelihoods are safeguarded, communities protected and all parties affiliated receive appropriate monetary compensation.*

Working definitions of healthy, clean and fair

Healthy Food

A balanced, varied and primarily plant-based sustainable diet, that involves moderate food consumption and has minimal to no added sugars, trans fats and ultra-processed ingredients.

Clean Food

Sustainable foods that are less artificial and processed, are environmentally-friendly, consider ethics in their production, as well as having positive psychological impacts upon the consumer.

Fair Food

Foods that are produced sustainably and ethically in regards to the farmer and the producer, in which livelihoods are safeguarded, communities protected and all parties affiliated receive appropriate monetary compensation.

1.4. Research context

The aim of this study was to gain an understanding of the current Maltese food system, mainly focusing on supply chains, food environments and consumer behaviour, to determine what specific issues should be addressed in further research, in order to enable the wellbeing of both consumers and producers whilst safeguarding Malta's natural resources landscape and nurturing its biodiversity.

Casual observation of in-person conversations, social media posts and mass media promotions suggest a growing interest in healthy eating among the Maltese. Farmers' markets are experiencing higher numbers of attendance alongside a burgeoning 'health' food retail and restaurant industry. Yet simultaneously, Malta is witnessing a dwindling full-time farmer and fisherfolk complement, whilst particular individuals and families have become reliant on food handouts for sustenance -- an unfortunate and necessary step towards food security that should be avoided in the long-term.

A review of the available local literature indicates a large gap in knowledge with respect to the role and impact of existing food policies and healthy eating campaigns on the various players in the local food system and on actual food consumption. Furthermore, although it is clear that the Maltese diet has changed over the past several generations and moved away from the traditional MD, there is scarce national level research on current food choices and behaviours and the motivations and influencing factors behind them. At present, there is no data in the public domain on how the triad of healthy, clean and fair (HCF), as actual or perceived properties of food, are featuring in local food production and consumption.

This study is therefore intended to be explorative and descriptive. It does not purport to present a comprehensive or representative overview of all issues affecting accessibility of HCF foods in Malta. But rather, the results will serve to suggest a framework from which to build a more focused research direction in the future.

The main question directing this study is: ***Can healthy and clean food also be fair –available at a price accessible to low income consumers, without compromising on fair conditions and a decent pay for producers?*** The long-term aim stemming from this research is to understand how to make HCF food accessible and desirable to everyone, particularly vulnerable groups. In light of this, additional questions are posed for possible address through this study:

1. Is the recent increase in 'health food' shops and 'healthy' supermarket sections alongside the availability and consumption of HCF food associated with a particular social group? Is it, for example, a middle class phenomenon?
2. What are the barriers towards achieving good HCF food for all? Is there a link with socio-economic status and affordability?
3. What cultural practices hinder/promote the consumption of HCF food?
4. What environmental factors can facilitate the consumption of HCF food?

2. Methodology

2.1. *Research strategy*

Exploratory studies are usually conducted when a problem is not clearly defined. The primary purpose is to formulate a problem for more precise investigation and hypothesising in future research. Exploratory studies result in a range of causes and alternative options for a solution of a specific problem. In other words, an exploratory approach allows for investigation of several research questions which provide a more accurate description of a phenomenon, while leaving room for further groundwork (Silverman, 2006).

2.2. *Data collection*

In keeping with the exploratory and descriptive nature of this study, and considering the insufficient and patchy knowledge of the local food systems context, a qualitative research methodology was selected for data collection and analysis. The purpose was to provide a nuanced understanding of individual experiences in context rather than presenting data that are reduced to numbers. The main shortcoming of this approach is in the restricted generalisability and limited representativeness of its outcome; however, qualitative study enables conceptualisation of the understudied topics and adds depth of understanding to public discourse and actions (Silverman and Marvasti, 2008). One clear limitation of this study was that it was restricted to Malta and not extended to Gozo, which has a very different food supply chain, food environment and food behaviour context (Piscopo, 2004).

2.2.1. *Methods and sampling*

This investigation was mainly based on primary research. Primary research involves data that is collected personally by the researcher, usually from a group of people gathered specifically for the study (Kawulich, 2005). In this study, primary data was collected through interviews, focus groups and direct and participatory observations. Interview and focus group participants were chosen through a maximum variation and expert purposive sampling technique (Palinkas et al., 2015). This technique was used to capture knowledge rooted in particular forms of expertise (both academic and practical/experience based), with the aim that it will help shape research questions and future research design. Sampling heterogeneity was also kept in mind, and to that end, maximum variation purposive sampling allowed selection of participants who could provide a diverse range of perspectives relevant to the study. With all this in mind, nutritionists, farmers/growers, specialists in pedagogy, 'clean' and healthy food suppliers and producers, activists, civil society organisations and policy makers were approached to participate. Data was collected according to the provisions of the Data Protection Act and ethical approval was obtained through the President's Foundation for the Wellbeing of Society Ethics Committee before any of the participants were approached.

Semi-structured interviews with experts in the field and stakeholders were used to facilitate an in-depth understanding and analysis of the subject matter in question. A snowball sampling technique (Atkinson and Flint, 2001) was applied and consent

forms were signed by all interviewees. Purposively choosing subjects, rather than having a random selection, was deemed necessary to ensure a breadth of perspectives from key players in the food supply chain.

Ethnographic methods (Whitehead, 2005) and participant observations (Kawulich, 2005) were conducted in both supermarket/grocery store settings as well as in two open-air market settings. Consumer food choices were observed as well as their physical behaviour and interactions with staff, servers or vendors with respect to their decision-making processes and outcomes. The observation sessions lasted approximately six hours. Identifiable descriptives of individuals were not recorded for anonymity purposes.

Two focus groups were also conducted. Participants were selected based on findings from the analysis of the one-to-one interviews and the food choice observations. More specifically, the analysis revealed that the consumer and producer (particularly conventional and full-time farmers) are not well represented in food-related public and political dialogue. Once again, purposive sampling was therefore used for the inclusion of specific groups otherwise not well represented in the local food discussions and debates. It is recognised, however, that the small and non-random sample cannot produce conclusive and representative findings with respect to the Maltese population.

2.2.2. Data collection schedule

Following an initial literature review, data was collected over four phases as detailed below.

Phase 1: Collecting Background Data

- Thirty semi-structured interviews with major stakeholders were held over a period of eight months. An original interview guide based on the key research questions was piloted and changes made accordingly (Appendix 1). The actual interviews did not last longer than 1.5 hours each. Interviewees were also asked to recommend other people who could potentially be interviewed for the study. The majority of the interviews were conducted in English; however, if the interviewee did not feel comfortable in English, the questions were translated into Maltese and the interviewees replied in Maltese or English. Interviews were transcribed and translated where necessary. This was followed by a thematic coding analysis.

Phase 2: Ethnographic Market Observations

- A popular and locally-owned supermarket chain with outlets in different regions was selected for ethnographic research. The researcher conducted observations in various localities to ensure persons from differing socio-economic backgrounds were represented. Observations were also conducted in two small grocery stores: one with exclusively organic products and the other, a conventional village shop. Ethnographic observations took place over four months and lasted six hours per day. Potential bias was reduced by organising observations on different days of the week and at different

times. The researcher employed a semi-participatory method by directly communicating with consumers through informal conversations only when approached. Observations were guided by an observation template (Appendix 2) that was based on the recommendations by Silverman (2006). Any dialogue and observations were recorded as part of the field notes. Permission to carry out the observations was obtained from the shop owners and signed consent forms were also collected. Posters were exhibited at the entrance of the shops on the observation days to alert customers that a survey was taking place on the premises.

Phase 3: Market Interventions

- Two local morning markets, one in the southern region and one in the central region, were chosen as venues for the open-air market observations. Only markets which did not host vendors selling fresh or processed ready-made food items which fall under the HCF definitions were considered. This was done to observe reactions of regular market-goers, under the supposition that they are less accustomed to encountering and buying HCF food at the market.
- A small, local catering company was chosen to set up a pop-up stand at these markets. The owner and caterer of the company -- who had been previously interviewed for this study -- agreed to produce and sell a selection of savoury and sweet foods with HCF features. The menu and the price per item were both pre-selected between the researchers and the seller (Appendix 3). Criteria included foods with ingredients with one or more of the following characteristics: minimally processed, local, seasonal, organic and fair trade. Other local food outlets that are well established in this HCF foods category declined to participate due to the desired menu being perceived as financially non-viable. Observations in the markets were therefore limited to this independent vendor.
- Permits were acquired for the pop-up stand through the relevant Local Councils. The researcher employed a direct participatory approach by acting as an aid to the caterer/seller and interacting with customers. Similar to the ethnographic market observations, all observations and interactions were recorded on site as field notes (Appendix 2).

The market intervention stand



Display cards used on the market intervention pop-up food stands

Falafels (with salad and wholemeal pitta - optional)

INGREDIENTS	Minimally processed	Local	Seasonal	Organic	Fair Trade
Fresh broad beans					
Chickpeas					
Garlic cloves					
Spring onions					
Chickpea flour					
Fresh herbs & spices					
Sesame seeds					
Tahini					
Water					
Garlic					
Lemon					
Salt					
Quinoa					
Cucumber					
Tomatoes					
Spring onions					
Apricot kernels					
Fresh herbs					
Lemons					
Extra virgin olive oil					
Wholemeal pitta					

You can store the falafels in the fridge for up to three days or freeze for a two months for later use.

Local Cheese & Pea Quiche

INGREDIENTS	Minimally processed	Local	Seasonal	Organic	Fair Trade
White flour					
Wholemeal flour					
Polyunsaturated margarine					
Water					
Ġbejna					
Irkotta					
Eggs					
Milk					
Peas					
Parsley					
Salt & pepper					

You can store the quiche in the fridge for up to three days or freeze for a two months for later use.

Strawberry Muffins

INGREDIENTS	Minimally processed	Local	Seasonal	Organic	Fair Trade
White flour				Organic	
Wholemeal flour	Minimally processed				
Coconut oil	Minimally processed			Organic	Fair Trade
Sugar	Minimally processed				Fair Trade
Eggs	Minimally processed			Organic	
Fresh strawberries	Minimally processed	Local	Seasonal		

You can store the muffin in an airtight container for up to two days.

Pudina

INGREDIENTS	Minimally processed	Local	Seasonal	Organic	Fair Trade
Wholemeal bread	Minimally processed				
Milk	Minimally processed	Local			
Raisins	Minimally processed			Organic	Fair Trade
Dried apricots	Minimally processed			Organic	Fair Trade
Dried figs	Minimally processed				
Fresh apples	Minimally processed			Organic	
Orange zest	Minimally processed	Local	Seasonal		
Cocoa	Minimally processed			Organic	Fair Trade
Mixed spice	Minimally processed				
Pumpkin seeds	Minimally processed				
Sunflower seeds	Minimally processed				
Almonds flakes	Minimally processed				

You can store the pudina in the fridge for up to three days or freeze for a two months for later use.

Phase 4: Focus Groups

- Two focus groups were conducted: one with a local farmers' cooperative and the second with women who were participating in community evening classes on responsible family living. Focus groups were intended to include no more than ten participants per session. The questions used, as in the phase one interviews, were semi-structured and open-ended (Appendix 1) to make participants feel more at ease and reduce potential bias. The focus groups were mainly conducted in Maltese with questions translated into Maltese. The small group size and length of the interview, no more than an hour and a half, were based on focus group planning guidelines (Bernard, 2006; Morgan and Krueger, 1998).
- The first focus group was conducted with a group of full-time farmers from the Mġarr Farmers Cooperative. Nine male farmers, all aged over 50, plus the secretary of the cooperative, participated in the focus group. The session was recorded on a voice recorder and held at the premises of the Cooperative at Mġarr as part of their regular weekly members meeting. The second focus group was held at the Cottonera Local Council and was attended by seven females above the age of 45. All participants of both focus groups signed consent forms. The recordings were transcribed and translated as necessary.

2.2.3. Ethical considerations

The measures adopted with regards to conducting ethically sound research are documented throughout this report, though some of the key guiding factors should be noted:

- The purpose and process of the research was made very clear in information letters, participation invitations and consent forms.
- An emphasis on reciprocity was maintained throughout the on-going research process, providing the opportunity for all research participants to maintain contact with the researcher.
- When requested, the researcher acted on behalf of the participants to set up networks, following consent from all parties involved.

2.3. Analysis of data

Thematic coding was used for analysis since it is an established method in qualitative research based on theory (Braun and Clarke, 2006; Miles and Huberman, 1994). The goal of such analysis is to identify major concepts and categories in collected data (WHO, 2014). In this study, first narrative data was broken down during initial coding to produce categories. Then recurring patterns were found across all the data and grouped into major and more refined themes. Theoretical concepts emerged from saturated categories and themes. Finally, the concepts that emerged from thematic analysis were supported with the most representative verbatim quotations. Inclusion in the final report of excerpts from the transcripts helps to clarify links between data, interpretation and conclusions (Greenhalgh and Taylor, 1997; Ritchie et al., 2003; Long and Godfrey, 2004).

3. Results

This report explores the issue of HCF food accessibility in Malta from different lenses. The aim was to gain an understanding of the current local food system by speaking and interacting with people involved in various stages of the food supply and consumption chain. The results of all the phases from the data collection schedule are presented in this chapter. To facilitate reading throughout this chapter, when quotations from participants in the interviews, focus groups, or market interventions are given to substantiate commentary, the source will be specified as indicated in Table 1.

I	Interview
FG	Focus Group
M	Market Intervention
c	Consumer (people who have no other affiliation with the food system other than acting as consumers)
p	Producer (full-time and part-time fruit and vegetable growers)
s	Service provider (such as restaurateurs, shop owners, chefs and caterers)
e	Educator in the food sector
g	Government official
am	Academic
m	Migrant
ac	Activist and Civil Society Actor in the food sector field

Table 1: Describing sources of qualitative data.

3.1. Defining healthy, clean and fair

Interviewees were asked to define the terms 'healthy', 'clean' and 'fair'. Their descriptions were compared to the working definitions described earlier. All the responses indicate that concepts behind HCF foods remain highly subjective. Furthermore, there was little mention of sustainability, an arguably necessary component in food access as expressed in the working definitions.

3.1.1. Healthy

The main ideas concerning a healthy diet, such as variety and eating in moderation, were not mentioned by the interviewees. Instead, people used generic, subjective and qualitative terms, such as unprocessed, authentic, nutritious and quality to describe food as a category.

3.1.2. Clean

Most people could not provide a clear definition of ‘clean’; however, ‘few’ or ‘no’ pesticides were frequently mentioned. There was also a significant amount of overlap between the terms clean and healthy, with clean serving as an indicator for a healthy food item. No one mentioned the fact that clean eating is a movement that developed in response to the organic industry.

From the interviews and focus groups, it was evident that even though people were familiar with the term ‘clean’, and indeed in some cases even opted to use it themselves, their perceptions were not rooted in any extensive or operationalised common definition.

3.1.3. Fair

Like the description of ‘healthy’, the majority of responses indicate a subjective view of the term, rather than a perspective based on facts. ‘Fair’ was strongly associated with trade and appropriate wages for food producers and indirectly associated with the concept of healthy.

3.2. Thematic analysis

The theoretical concepts which emerged from the thematic analysis were divided into internal and external factors. Internal refers to the personal and what is in the given individual’s control, whereas external refers to the individual’s surrounding environment (Bogaert et al., 2008; Bradburn et al., 2003). Within this major division, findings were further grouped into major themes and categories (Table 2) for an exhaustive analysis of participant perceptions, behaviour and the corresponding correlations.

Theoretical Concepts	Major Themes	Categories
Internal Factors	A. Money	
	B. Attitude	B1. Age
		B2. Time
External Factors	A. Economy	A1. Marketing
		A2. Availability
		A3. Policy
	B. Education	
	C. Information	
	D. Culture	

Table 2: Breakdown of emergent themes and categories.

3.2.1. Internal Factors

A. Money

Throughout the study, an overwhelming majority of participants expressed that HCF food is more expensive than non-HCF produce. Together with unrealistic price expectations and a tendency for producers to have slim profit margins, price emerged as one of the strongest barriers to healthy food access. As a result, it is perceived that those with higher income can afford “better” options.

‘They also have more financial resources which enables them to acquire this food, to be aware of this food...’ [I, am]

At the same time, a few participants described a situation in which lower income families may in fact be eating healthily, without being consciously aware, because of their proximity to farms. Residing conveniently close to healthy and affordable food options that require minimum travel and no middle ‘man’, reduces costs.

Both observations and interviews revealed that people prioritise price over quality. This may lead to unrealistic expectations, such as a desire for food to look fresh, be less processed and healthy, for example, and remain at the same price or even cheaper than its unhealthy counterpart. Often consumers feel prices are unfair without understanding the pressures on the HCF food producers. In some cases, various employees along the food supply chain may not receive proper wages or profits as a result of having to sell HCF foods at a lower price.

‘Consumers want their food to be “better” while also being cheaper. This has left many primary producers with insufficient margins to do anything but try to hang on and avoid bankruptcy.’ [I, am]

‘We are still very “price vs quantity” driven here unfortunately. We want a lot of food, for little money – which usually undermines quality and disrespects efforts of traders, professionals and the environment.’ [I, s]

‘A European pig farmer who spent a year producing a pig may be paid less than 1.30 per kilogram for their product and make a big loss. The end product may ultimately be sold from the butcher shop or supermarket for more than 10 per kg, so the consumer has certainly not saved any money. The middlemen, processors and retailers, however, may each have doubled their money along the way.’ [I, e]

B. Attitude

Humans are often conditioned to behave and think in particular ways. Although a highly complex topic, data indicated a reluctance to change in some consumers, especially for those who are more conservative in their beliefs. Coupled with a likely lack of awareness, it was claimed that shifts in attitude are difficult to encourage. As such, it is easier to go with what is familiar, rather than to challenge long-held beliefs.

'Many people who are in the field tend to get boxed into their way of thinking and they don't understand that maybe some people don't really want change, or are not willing to make certain sacrifices [for change to happen].' [I, ac]

'My current role is that of an educator. I am a home economics teacher dealing with food and nutrition education topics - unhealthy eating habits are the hardest to change and deal with.' [I, e]

B1. Age

Age emerged as a factor related to willingness to change. It is often assumed that as an individual gets older in age, they are less likely to change their living and eating habits. As a consequence, promoting HCF foods is more difficult among older generations. The interview data seem to confirm this, indicating that younger members of the population are perceived as much more open to change.

'Maltese people tend to be heavy meat eaters and since the [cooking] classes are all plant-based, they are less attracted by them, especially in the older generations, this is very strongly felt. The younger generation is changing.' [I, s]

However, some interviewees discussed situations in which the trend is opposite. If a given individual develops health conditions, such as high blood pressure and diabetes — common illnesses in the older years resulting from a poor diet — there is a shift towards healthy foods often encouraged by doctors.

'For example because of health issues [they look for food] somewhere else and maybe..they have a regime that forces them not to consume processed foods.' [I, c]

B2. Time

As expressed in interviews and during observation conversations, consumers lead busy lives that limit how much time they can spend travelling to shops. They therefore opt for convenience.

'A lot of people have a pretty busy life, and to go to, [for example], from Valletta to Attard for the veg box — you might want to do it, but once a week to make that effort to go there if you're not naturally passing by there, it's quite an effort.' [I, am]

'Today for convenience sake because everyone is busy, they go to the supermarket and buy everything from there and so the [supply] chain changed a lot. If before the butcher used to work more with farmers that engage in husbandry, now this decreased. The supermarket buys from where it is more convenient, from where there is the better price.' [I, s]

Convenience may indeed be a hallmark of the last several decades. Beyond having a way to keep food fresh for days in a refrigerator — or months inside a freezer — foods are now pre-made, ready-made, on-the-go and no-prep-needed. Some interviewees felt that a large proportion of consumers do not have the time to buy and cook food, let alone critically analyse their decisions, correlating with the perception that HCF foods take longer to acquire and prepare.

‘People might feel like they do not have time to make informed choices - supermarkets provide them with easy/ready-made decisions.’ [I, am]

‘I think if you look at what people buy, it’s still mostly white pasta and pizzas and lots of convenience food...If you buy whole grains and veg, then you have to make something with it yourself...It’s not ten minutes cooking.’ [I, p]

3.2.2. External Factors

A. Economy

The market economy can be seen as a convoluted web, often making it impossible to discern between external and internal influences on the existing food system. The majority of participants felt that economic barriers are a significant factor in HCF food access.

A1. Marketing

An industrial, globalised food system has “normalised” foods that are aesthetically pleasing to the eye, including produce which is symmetrical, shiny and without visible soil. One participant in particular noted how this may be a potential barrier to HCF foods because they may not look as attractive as those that have been more processed. In addition, many interviewees noted that foods produced by large, often international, companies afford better marketing, thus influencing the buyer to regularly go for options that are less healthy.

‘The problem is that foreign products are usually better marketed.’ [I, p]

Although consumers were not directly observed in proclaiming a direct correlation between perception of quality and the presentation or aesthetics of fresh vegetables and fruit, a majority of the interviewees belonging to the food producer and seller categories discussed the association between the two.

Consumers tend to look at the cosmetic side of the food. Example, they notice that some imported food looks nicer than local food which influences their choice. Even the packaging design affects the attractiveness of certain foods.’ [I, am]

In addition, poor marketing stems from slim profit margins and consequently, may also lower product standards as one interviewee in particular pointed out:

***'Primary producers who are not themselves processors rarely have the kind of profit margins necessary to run wide-scale marketing campaigns in order to sway the consumer's opinion or preference. This reinforces the status quo, where those who are selling us what we eat are the best positioned to tell us what is good for us to eat.'* [I, ac]**

A2. Availability

Among those interviewed, opinions varied on whether HCF food is available in Malta. Although some argued in favour, others strongly believe that healthy products are not accessible to the entire population given they are seldom found in shops. Interviewees that see a problem with healthy food access also believe that organic and/or free range meats are nearly non-existent.

***'Number one barrier is lack of availability and high food prices (e.g. organic produce, local produce, healthy foods) – this is a bigger issue when considering the wide availability of cheap, unhealthy foods.'* [I, s]**

Alternatively, Farmers' markets are often considered an effective way of promoting local and healthy foods. Some participants stressed that Malta is unfortunately limited to only two locations, further reducing accessibility.

***'[At the Farmers' market] you find some really good deals, but [it's] only in one location. So a family that is medium- to low-budget in Malta [and lives far] from a Farmers' market, then it is not accessible and they will choose a supermarket chain...'* [I, s]**

***'If I want to get people to eat more organic food, and the only place I can go to get organic food [is] if I drive up to Mellieħa from Siggiewi, forget it! I find it a problem going to the supermarket once a week, let alone if I want to go get my fruit and veg and I have to go the other side of the island [for it].'* [FG, c]**

Although the connection is not always visible, food availability is intricately linked with consumer demand. It is interesting to note that, despite the Westernised nations seeing an unprecedented growth in vegan and vegetarian options -- with health food sections even popping up in local Maltese shops, some participants believed that there is not enough consumer demand for HCF foods, effectively reducing availability across Malta.

***'The demand is either not there or we are not aware of it; but as it is I do not think there are enough people who are willing to pay the extra money that it costs to grow produce in this type of way [HCF].'* [FG, p]**

***'I would bring more [HCF products] if people bought more. As it stands, people seem to talk a lot about how they want to buy and eat more healthy food, but unless they actually buy it, I cannot sell more of it.'* [I, s]**

Higher prices for particular fair trade and organic products also corresponds with a very small HCF food market and potential customer base. Malta's small size prevents producers from ordering in bulk. Several interviewees noted the need for increased market demand and trade to bring prices down whilst still being able to make a profit.

***'Sometimes we can't afford it which is just the sad part of it...We use a lot of nuts, if [we] would have to buy only organic nuts or fair trade nuts, we couldn't sell it for a price that people would accept.'* [I, s]**

A3. Policy

Many participants felt that there is a lack of legislation to encourage healthy eating, despite the existence of the Food and Nutrition Policy and Action Plan for Malta 2015-2020 (HPDPD, 2014). The government has the power, in theory, to facilitate positive behaviour change towards healthier eating. Several interviewees suggested the introduction of incentives for purchasing HCF foods.

***'In a local context it starts with culture change and any culture change that won't occur naturally and in a timely fashion needs to be engineered. I think a good way to start is with..policy and legislation, and then carry on with creating incentives for manufacturers and suppliers and funding for NGOs to carry out solid campaigning.'* [I, g]**

***'Any real shift would require a basis in legislation regarding marketing of foods, as well as informational campaigns run by authorities instead of private companies with opposing economic interests.'* [I, s]**

***'Subsidies on healthy foods, or alternatively, taxes on unhealthy foods would help to change these choices. At least one of the two would be a step forward for Malta.'* [I, p]**

Apart from incentives, another form of aid suggested was subsidies to local farmers who may not be eligible for EU funds. These subsidies could be aimed at enhancing farming practices that lead to the production of sustainable and ethically produced foods. Initiatives by Local Councils for small-scale projects to raise community awareness were also mentioned.

***'The government should be one [of the facilitators providing] by having laws in place...for example, small Maltese farmers who couldn't access EU funds, so they have to have some sort of subsidies and ideally from local government that is the national, not the Local Councils. Local Councils actually, they could have projects in urban gardening [as opposed to funding the agricultural sector].'* [I, p]**

The data suggest that due to the higher cost of production, HCF food generates a lower profit than food which is non-HCF. Another participant noted the tax system as an additional problematic factor:

'[Bad] food makes good profit; good food makes bad profit. This is a common principle the world over [and] more so in Malta where restaurants have to deal with a uniquely unfair VAT system on food. Whereas every (or most) other EU country applies a low rate (0-8% VAT) for labour intensive industries (and restaurants certainly fall under this category), in Malta, traders still have to pay the full 18%. That extra 18% you pay on restaurant food in Malta is eaten away from the quality of your ingredient.' [I, s]

B. Education

The majority of interviewees felt that consumption of HCF foods needs to be taught and fostered, particularly from a young age. They reasoned that children are more open to new information than adults. Thus, developing awareness at a young age increases the likelihood of better food-related decisions later on in life.

'Introducing children to the food system is very important because then they [will be able to] understand it and will make better decisions as well.' [FG, c]

Some participants also expressed the need to have a more holistic approach to teaching the subject and speculated that education implementing a strict, traditional method fails to provide children with practical and relevant life lessons. One interviewee suggested that schools have vegetable gardens that children learn to maintain themselves.

'We want to see how we can encourage schools to have a vegetable patch because it doesn't take a lot of money to do this. One of the private schools in Malta has an herb garden. We just have pots and the kids looked after the pots, a sort of science. We just go out and there is water and the kids know: "We have 10 minutes." We adopted two areas in the floor itself..and we started to grow beans and cabbages and tomatoes. And then at the end of the year we need to put everything together and to give the teachers a treat [a cooked meal].' [I, e]

Education on proper nutrition and food labelling was also mentioned as a potentially useful tool in promoting awareness since this would give children and youths an opportunity to inform their parents.

'I can see, for example, when children come to stalls...they see the fair trade certification and they are the ones who are.. "Mommy, look fair trade,"...and the mom looks like, "Uh, what's this?" which is nice.' [I, s]

Yet, study participants also noted that education at school may result in dissonance between what is taught versus what is practised at home.

'You are trying to educate from above, but there is also of course a need to educate [children] from below. You see parents, who just outside the

school gate are buying food which is definitely unhealthy...So you have the educator in school saying one thing, but that is not being [practised at home].’ [I, s]

Public education campaigns were also brought up in the argument for holistic methods associated with the belief that a focus on theory denies exposure to current health issues. It was argued that such campaigns should also promote eating well on a budget.

‘There has to be real complete initiatives [which] challenge these markets because in reality what we end up [with are] some awareness campaigns [which are] ineffective.’ [I, p]

‘We need, I think, to re-educate about the fact that we don’t need to spend an abnormal amount of money to eat well. But you have to know how to choose well.’ [FG, c]

C. Information

Information was brought up frequently during interviews, from not having enough to having too much. Another significant issue is not having the correct facts leading to mass misconceptions and inappropriate — or even dangerous — food trends.

‘I spend a lot of time on Facebook, literally fighting with people, justifying the existence of Maltese agriculture to tell them about how many non-organic things we get from abroad that we still eat. It doesn’t mean that because it’s not organic, it’s not good.’ [I, s]

‘I’m the first one that until I started my work in [ecotourism], I had never tasted Maltese oil. That was something that shocked me and I said, “How have I never tasted this local product [when] I work in this sector?” Can you imagine [what it’s like for] someone that is not involved [in the sector]?’ [I, s]

‘...I think for a lot of people who maybe are less educated on that [HCF foods] topic..will hear something [like], “This is healthy, so eat it,”...So there were stories of people eating only kale or something..because last year it was the ‘in’ health food.’ [I, s]

‘We sell superfood and they are foods that contain a lot of nutrients, but on their own [they] will not make you a healthier person...It’s part of a healthy diet not the [whole of it].’ [I, s]

Similarly, a recurrent concern revolved around the barrier of incomplete or partial information, which could lead to misinformation:

‘...you have to be very careful to recognise the difference between ‘real’ quality traits, which actually have real-world effects on everyone in-

involved, and 'artificial' quality, which is added through expensive marketing campaigns, convincing the consumer that some kind of benefits are being seen somewhere, by someone, although perhaps not experienced directly by the consumer herself.' [l, c]

It was also suggested that the over-saturated information age is also forcing consumers to filter out important concepts in food production leading to uninformed decision-making, as one interviewee in particular noted:

'We are increasingly becoming unaware of the entire process that eventually leads a product to get to our table.' [l, p]

Another interviewee discussed how lack of knowledge is not limited to the consumers, but in some cases also affects the producers themselves.

'Trying to find a clean solution is challenging...Love it or leave it, [growers] sometimes need to use pesticides, and I know places where you can smell it. There is also a farmer who was literally bragging on the amount of money that he spent on spraying his crops because he just wanted to make sure that nothing happens to the crop. He said..it's not a question of money for him, he wanted to spend extra money, but he just didn't want his consumers to [complain] that his product was being infected by insects.' [l, ac]

Conflicting information is often overwhelming; from marketing campaigns to unavoidable advertisements on social media; thus, some study participants felt that educating oneself on what is truly healthy becomes nearly impossible. Some also felt that many people labelling themselves as professionals in the nutrition industry lacked the educational background and qualifications to make correct assertions on healthy living, which often results in an insidious spread of poor diet choices. Inevitably, this contributes to the difficulties associated with healthy food habits:

'I think we do have a good amount of professionals in the field, but unfortunately we also have some who try to pass themselves off as professionals when they are instead spreading misconceptions. Some dieting plans, for example, are not necessarily that healthy.' [l, s]

During market observations, however, a few people who exhibited familiarity with sustainability were able to trigger informed discussions with the researcher and the seller managing the food stand about a chart showing properties of the food on display.

D. Culture

HCF foods are perceived as a trend and as pertaining to particular subcultures. This simultaneously promotes and hinders its consumption, in that those following a trend may naturally become part of a movement whilst others become alienated.

***'I think there is a bit of divide..between the people who will go for it possibly because they like a subculture..[and those] people who are not in the mindset.. "oh no that's for those other people".'* [M, c]**

***'Maybe people have these preconceptions that "it's not for me".'* [FG, c]**

Consumption of HCF foods appears to be additionally associated with perception of self-worth. Those who value themselves are more likely to be concerned over their dietary habits and vice versa.

***'Good food, clearer skin..good hair [are] associated with people who can afford it...Maybe they don't feel that they deserve it because if you don't feel that you are..worth the time and space in Malta..in people's' lives or, if you don't have self-worth or other people around you don't [make you feel worthy]..then why should you eat clean, healthy food?'* [I, s]**

Maltese culture was referred to by at least half of the interviewees. Thus, attitudes deriving from being raised in a small island nation which was occupied throughout most of its history seem to play a significant role in food choice.

***'Even colonialism in Malta, "the foreign one is good, the foreign one is good", and that [feeling] remained...Because when you grew up in a family that bought foreign oil and not Maltese oil, then you already have part of that mentality that's in you.'* [I, am]**

Additionally, food plays an important role from a social aspect, rather than solely as a means to satisfy hunger or merely focusing on how it tastes. At the same time, the consideration of healthy and fair becomes insignificant compared to these three roles, especially with people whose finances become a predominant concern.

***'Our cultural policy on food, if there were one, focuses entirely on the social aspect - we just want to have a good time with food...'* [I, s]**

Some interviewees coming from the food studies sector believe that the Maltese consumer culture is largely apathetic regarding HCF foods and the environment. According to these participants, it is possible that even if availability, money and time were not factors in food choice, a vast majority of Maltese would still avoid HCF options.

***'I don't think that most people would go out of their way to make sure that almost everything they buy, food-wise and not food-wise, is quality or ethical because they don't care.'* [I, s]**

***'Few care about quality, too many care about quantity...'* [I, s]**

Notably, travel and immigration have resulted in exposure to other cultures and the data indicates a shift towards HCF foods through cross-cultural mixing. Maltese are

introduced not only to new foods, but also different cooking methods and traditions.

'One of my rather good friends is from Lebanon, because of contact with him I started using a lot of lentils.' [I, c]

'Tastes will always vary according to culture, upbringing and personal choice. However, open-mindedness, acceptance of and fascination with other cultures will more often than not help us appreciate foods we weren't necessarily brought up eating.' [I, m]

Mixing cultures in a broader sense was brought up by one participant in particular in the context of educational settings to encourage spread of information:

'I think the biggest problem..is that different groups don't talk to each other. We need to make an effort..when we're organising conferences [to] mix people..so you get the architect with the farmer -- only there the magic happens...We need to mix in terms of class, status, educational background, professions, so information can flow.' [I, ac]

4. Discussion

Major themes from the four phases of the study, as identified in the Results section, are discussed below. These are argued in conjunction with previous research and other literature, keeping in mind the main research problem and objectives of this study.

4.1. *Culture and environment*

4.1.1. Food choice and subculture trends

Malta, like many parts of the West, has experienced changes in food choice according to emerging subcultures. Vegan restaurants and salad kiosks are increasing across the Islands, as well as organic shops and farms. The people who demand or have access to these food sources are typically either in the middle or upper class bracket, given that such products are normally much more expensive than conventional foods and primarily available in wealthy neighbourhoods, tourist hotspots and/or areas with a high concentration of foreign and financially secure residents.

Food choice is significantly affected by subculture and anxiety, which in the technological age has been largely attributed to the internet (Cronin and McCarthy, 2011; Gerchow et al., 2014; Jackson, 2010; Wilcock et al., 2004). With information a literal 'click' away, consumers find themselves constantly bombarded with information about what is healthy, what is not, and the latest food trend. Like-minded consumers may congregate on social media, and eventually also in person.

Subcultures have emerged in relation to healthy living and healthy eating, such as the financially stable and educated millennials in the Western world. Yet another subculture persists, that of the 'modern environmental hippie'. Somewhat akin to its origins in the 1960s, people belonging to this group feel a strong connection to nature and subscribe to vegetarian or vegan diets. There may also be a tendency to cling to misconceptions surrounding certain food trends, such as gluten-free and superfoods (EUFIC 2012; Levinovitz, 2015).

The Groupie Effect

Several interviewees expressed concern over Malta's identity crisis. With a long history of occupation, Maltese are left feeling insecure about their country's identity, including its cuisine. This results in a reluctance to keep traditions alive in exchange for other European dishes that must be 'better'. The insecurity may be subconscious, whereby consumers are reluctant to change their consumption patterns and lifestyles because they feel that they are not deserving; but they are not consciously aware of this feeling. The insecurity may also stem from a defeatist attitude, manifested from a history in which Maltese rarely had a say in how their country was run. In both interviews and market observations, it emerged that people sometimes declined seemingly healthy food options because it was 'not for them'.

Maltese food consumers' insecurities may have resulted in 'the groupie effect,' where a particular subculture strongly adheres to environmental and organic values

to such an extent that others not only feel excluded, but feel it inappropriate to seek common ground and make similar food choices and lifestyle changes. This effect may also be linked to location and cost. Often places that offer vegan options and market 'clean eating' are in areas with residents who can afford the high prices and are invested in a healthy lifestyle.

In addition, it is suggested that subconscious insecurities present in some Maltese result in the feeling of anxiety aside from other hidden emotions. Therefore, those outside of the circle of like-minded individuals actively contributing to the healthy eating trend, automatically exclude themselves from opportunities to learn more about healthy eating and completely reject its consumption. As noted above, feeling undeserving and/or the tendency to self-sabotage can also be a result of past historical influences and experiences which encompass a societal insecurity. Clearly, one cannot fully separate the 'personal' from the food. For some, the newer 'clean' foods may appear foreign, therefore undesirable, especially if their diet is largely composed of meats and refined carbohydrates.

One must note that there are not enough data from this study to firmly conclude on the proposed groupie effect, hence, more research should be pursued.

4.1.2. Image of a farmer

Focus groups revealed that farmers feel largely isolated from the national food discussion and believe that the vast proportion of the public view them negatively. Most farmers agreed that there is a clear disconnect, with many consumers having lost touch with the value of the foods farmers grow and the visible and hidden work involved in its production. Apart from reduced valuation, consumers increasingly rely more on certification labels to learn about the various aspects of the food system that a particular product would have gone through, rather than speaking directly to the growers or producers themselves. This presents a serious problem: when consumers start trusting labels more than growers and producers, it puts smallholders and service providers who cannot afford certifications, or who would rather not, at a disadvantage.

To exacerbate the problem, a "heightened intellectual debate" has removed farmers from the table with news media on agricultural issues presented in English, and academia, as well as non-profit organisations, often neglecting consultation and dialogue. Although a number of farmers speak English, many either do not speak it fluently or understand it well enough to make a case for their inclusion in agriculture-related discussions, which are often very academic and technical in nature. Furthermore, most farmers simply lack the time to participate. Rather than the mass media making an effort to engage farmers outside of their working hours, it frequently propagates a stigmatised and negative image of the farmer.

The disconnect between the people who grow the food and those who consume it has led to misconceptions of agricultural practices and mistrust between groups. When this is paired with an insecure culture -- with consumers subconsciously feeling that Maltese crop is of poorer quality than that of other European countries, although another study found the opposite is true (Dimech et al., 2011) -- local food becomes something which is seen as deserving an unfavourably low price, to the detriment of local producers.

4.2. Money

4.2.1. Cheaper is not always cheaper

The relative cost of HCF foods is widely viewed as a barrier to healthy eating (Hamilton 2005). This outlook also emerged among the Maltese participants in this study, with a majority of interviewees perceiving HCF foods and even the option of having a choice of foods, to be restricted to the middle and upper classes. Yet, food choice may not simply reflect the association with price, but also taste, convenience, appearance, and effective marketing. Whilst most interviewees agreed that unhealthy foods cost less, they also perceived that consumers lack understanding on how different factors in food choice could possibly make healthy eating for low-income families just as affordable. In 2017, a High Level Panel of Experts showed that whilst lower cost nutritious foods were often available, these were not always perceived as socially and culturally acceptable by consumers in the region. It is clear from this study that HCF foods need to be appealing as well as affordable to enhance access.

Some interviewees believed that replacing convenience foods with fresh vegetables and fruits may in fact result in a cheaper food bill. This is very locality and time-bound, with research showing that food prices differ in different localities around Malta (Goedemé et al., 2015) and that over the years the inflation in price of healthier foods, such as vegetables, nuts and fish has been among the highest (Piscopo et al., 2016). It is worth noting that cooking more often at home allows consumers to buy certain products in bulk, further reducing costs; whilst cooking in bulk (for more than one meal) and freezing reduces the likelihood of buying the potentially costlier industrially produced or take-away foods when one has little time for food preparation. Local research on community kitchens has attested to this potential set of benefits related to cooking from scratch (Caruana, 2016).

One interviewee in particular noted that price often clouds other factors when making a choice, including nutrition, calories, production, and value. When choosing between dried fruit with no added sugars and crisps, for example, the consumer may choose crisps simply because it is cheaper. However, the dried fruit is more nutritious, less processed and over a short term, also provides more energy. The dried fruit is not significantly higher in price and considering the health benefits is, arguably, much better value for money. Yet, understanding value for money requires consumers to think in both the long-term and short-term. Despite the widely agreed upon association between poor eating habits and diseases such as diabetes, heart disease, and stroke (WHO, 2013), extending this association to link cheap, unhealthy foods with future medical expenses stemming from diet-related illness is challenging for consumers, or consciously ignored in favour of immediate gratification. Several studies have shown that linking short term gains (e.g. saving money on cheaper foods) with long term losses (e.g. spending money on associated medical costs from poor health) is not done by most consumers (Lang, 2003; Marteau et al., 2012; Ford Runge, 2007). In particular, due to financial constraints and immediate needs, people from lower socio-economic backgrounds are often unable to think about savings and effects of immediate costs over the long-term. One can also argue that, due to the free national health service in Malta, people do not take responsibility

for the health consequences of poor lifestyle choices since they have the peace of mind that they will be covered should health issues arise. Further research is being encouraged which would confirm whether this mentality is widespread.

4.2.2. Willingness-to-Pay (WTP)

During this study's market interventions, consumers, who like many others may have generally felt that the prices for HCF foods were too high, displayed a clear WTP when the food offered was attractively displayed and shown to them. In fact, most consumers had already made the decision to buy the food as they approached the stand and made no objections to the price. Contrary to perceptions from other interviewees, consumers did not have an issue with price when the value was physically apparent from an aesthetic, size, and labelling perspective. This suggests that consumers not only factor in price, but also snack/meal size -- ensuring they will feel full afterwards -- and presentation of the food/dish. For healthy, home-made and packaged foods, value for money may be much harder to ascertain by the consumer given that the labour effort and resource usage behind the product is not visible. In addition, for some consumers, the concept of home-made may conjure up the idea of low cost, rather than quality derived from close attention during production.

Previous studies on WTP have found several factors that influence this behaviour: price, sociodemographic profile, presentation, labelling, perceived quality (subjective to given culture or country), and individual concerns over the following: traceability, safety, origin, environmental impact, and health (Huffman et al., 2003; McCluskey and Loureiro, 2003; Michaud et al., 2012). Therefore, a WTP may not directly correspond with the action of consumption (Furst et al., 1996; Katsarova, 2015). Much research on WTP has been conducted in the context of specific categories, such as WTP for organic items, particular environment-friendly labels, or fair trade. In pricing market research, it is also important to consider other factors that are integral to food valuation and choice, such as brand and taste. This would also apply to HCF foods.

International research findings indicate that the majority of people surveyed display a WTP when they can clearly see justification for higher prices, such as believing organic foods to be healthier (Batte et al., 2007; Krystallis and Chryssohoidis, 2005) or fair trade products to be more socially responsible and of benefit to others through good labour practice (Tully and Winer, 2014). However, much of the available research concerns small sample sizes and given the results observed in this study, WTP in Malta may have a much simpler explanation: perceived sensory satisfaction that overrides price. Local marketing that focuses on the sensorial experience of consuming HCF food and the assurance that people will feel satiated after consuming HCF foods may be an effective approach to combatting personal access barriers and changing behaviour as a result.

4.3. Information

4.3.1. Food choice and modern anxiety

Although arguments have been made that we live in an anxiety age, it is difficult to say whether this has not existed throughout human history (Jackson et al., 2012). In fact, anxiety towards food consumption has persisted for thousands of years (Trentmann, 2007). Given the emergence of a globalised food economy, however, the West finds itself in an unprecedented setting where food choice is not merely endless and often confusing and overwhelming, but rather shifts between several different forms in relation to information vacuums and information overload.

Anxiety can affect both the individual and a society and, contrary to popular thinking, it can be positive and lead to better decision-making (Jackson, 2010). Both positive and negative anxiety has been detected in this study in direct correlation with food choice, socio-economic background, and accessibility.

Information overload

Motivational communication and the provision of information can change consumer knowledge, shape attitudes, and redirect decision-making around food choice and dietary behaviour (Verbeke, 2008). However, accessibility and availability of information does not necessarily translate to raised awareness. Likewise, raised awareness may not lead to a change in ones food choices. In fact, food behaviour change is determined by a complex set of interlinked factors, including social, physical, and economic status (Contento, 2011; Verbeke, 2008). However, there is little doubt that consumer food choice is markedly affected by information.

Bawden and Robinson (2009) discuss several definitions of information overload, a situation in which a person has received too much information causing a hindrance in decision-making leading to stress. Distractions and interruptions can also lead to overload. Such factors increase time-related pressure and when a given task is complex, the accuracy in decision-making is reduced. Information overload is more problematic for novices and beginners who lack skills in pulling away significant details from mass data (Chen, Shang and Kao, 2009). The risk of information overload and potential adverse effects resulting from consumer indifference and misunderstanding when confronted with too many information cues on the food packaging/labels and other sources has been observed in this study and recognised in past work (Salaün and Flores, 2001; Verbeke, 2005, Zammit, 2016). In one particular case during the shop observations, a mother, after spending minutes deciding on which cereal to take, ended up choosing the less healthy choice with a high amount of added sugars because the packaging boasted of vitamins, minerals and low fat content, possibly making it appear as the healthier choice.

It seems reasonable to state, therefore, that information overload likely has a significant, although poorly understood, impact on Maltese consumers, making their food choices a point of anxiety. As previously mentioned, most consumers in the West are confounded by huge amounts of choice with large supermarkets providing

hundreds of thousands of products. Beyond the myriad options, consumers have begun a shift from consumption of whole foods to consumption of nutrients and vitamins, disregarding the food item as a 'whole food'. In the United States during the 1980s, marketing no longer sought to sell food, but strongly advertised the supposed vitamins, minerals, and other nutrients in the product (Pollan, April 22, 2007). The significance of this shift reveals an emerging anxiety over what is safe and healthy to eat and what is not. Rather than eating whole foods with the knowledge that essential vitamins and minerals are being obtained within them, many consumers are embedded with fears that common foods have a nutritional deficit and are not enough.

Simultaneously, fears have developed over fats, sugars and salts that directly coincide with the expansion of alternative sweeteners and organic products (Clark, 1999; Donini et al., 2004; Jackson et al., 2012). The regular bombardment of messages pointing the finger at processed foods, condemning fast foods and promoting "superfoods" leaves consumers even more doubtful over what to eat. In a study of the subculture group Maltese millennial foodies, food choice corresponding with Facebook activity found that micro-celebrities symbolise trust — although they may lack credentials corresponding to the products and lifestyles promoted — and therefore their social media activity has a direct influence on food experience (Spiteri, 2016). Sadly, rather than being an immediate source of credible knowledge, the internet has turned into a place filled with as much fiction, if not more, as there are facts. The average consumer not only has to decipher between useful and valid information and false claims, but must also possess the critical thinking skills to sort through potentially health-damaging articles to arrive at accurate evidence and guidance to make correct knowledge-based and informed decisions.

During the supermarket observations, many people — especially those on their own — spent a lot of time making a decision about which type of product to buy. In contrast, those with family members and children at their side appeared to be time-pressured and were not able to read through food package information and ingredients lists as readily. It is likely that without children at their side, parents would have spent more time reading labels and hence, made more appropriate decisions.

Information vacuum

In contrast, another phenomenon associated with food choice-related anxiety is the information vacuum whereby consumers do not properly understand labels and the food concepts they align with. Misunderstanding and inappropriate grouping of terms allows anxiety to grow (Jackson, 2010). It may correspond with indecision, for example, when choosing between different brands or varieties of a particular food. This was seen frequently during the shop observations, with some consumers in particular spending a significant amount of time (i.e. over several minutes) deciding, for example, what type of eggs to buy.

During the consumer focus groups, participants expressed vague ideas of the terms 'organic', 'fair trade' and 'gluten free'. They often defined such concepts in simplistic, black and white terms. For instance, organic was seen as something that has

absolutely no pesticides and that is naturally “better” than conventional produce. While some studies support such assertions indicating more beneficial nutrients in organically produced food (Heaton, 2002), other studies have gone against such claims, arguing that organic does not provide more nutrition in comparison to conventional food products. They even stated that certain organic farming practices may in reality be harmful to the environment (Clark and Tilman, 2017; Smith-Spangler et al., 2012). Furthermore, the recognised EU regulations on organically produced foods exceptionally allow a small percentage of chemical pesticides, synthetic fertilisers and antibiotics if there are no suitable alternatives (EEC, 2007; Katsarova, 2015; European Parliament, 2017). Also, one must acknowledge that any comparisons about organic being naturally “better” in the context of HCF foods needs to go beyond nutritional value and consider such issues as levels of contaminants, combating climate change and biodiversity. Many participants also claimed that wheat is not healthy.

This misconception was additionally observed at the market intervention pop-up stands when consumers asked for gluten-free products and the researcher in return questioned if they were coeliac. Clearly, the majority possessed no knowledge of this disease.

This study indicates that many food choices made by consumers are largely influenced by an information vacuum and, therefore, they may often be misled in decisions about what is healthy or uninformed when considering claims and symbols on what is clean and fair. Local research has provided insight as to where consumer lacunae exist with respect to food labelling literacy (Zammit, 2016), whilst also portraying that interest to learn more is high though information overload needs to be avoided for long-term behaviour change. It is suggested that further research delves into the sources of misused and misunderstood terms by different population groups in relation to food choice so that appropriate targeted interventions can be developed.

Situational and choice-based anxiety

Hansen, Mukherjee and Uth Thomsen (2011) found that not all anxiety corresponds with poor outcomes. In fact, a form of “positive” anxiety exists in which consumers seek information to make better choices. By displaying concern over what ingredients the food contains, consumers seek information, read labels, and make better decisions. However, this situational and choice-based anxiety may lead to unfavourable decisions when the consumer does not have easy access to information and/or is restricted with time.

Situational anxiety was observed frequently during the market interventions. Most people, instead of looking at the food offered as a whole, asked questions about what it contained and neglected to enquire about locality of production and if anything was fair trade and/or organic. This suggests that the novel market stand with a clear ‘health’ slant prompted the customers to zero in on this feature, albeit to the detriment of other features. The complete meal is effectively broken into its parts: with ingredient-based micro evaluation of how it helps and how it damages health. The act of eating is possibly seen as a step in the process of getting to the

final experience of feeling well nourished.

Indeed, it was also noted that consumers mostly want information to help achieve a better diet, avoid certain allergens, and combat health-related issues. There is a growing movement of thought, including locally, that diet can fix everything (Caruana, 2016; Spiteri, 2016). Although many diet and health claims are backed by research (Cancer Research UK, 2018), others are only supported by anecdotal evidence or personal endorsements. The latter was evident in local research on food depiction and messaging in social media (Spiteri, 2016), where the health value of some food was possibly exaggerated. Interestingly, this aura of universal cure through food emerged during the market observations, where some people asked what they could eat to help with various health issues, even ones unrelated to food consumption. Overall, however, it seems that ingredients are more likely to be a source of anxiety for many consumers. When one or more of the HCF criteria are considered for application to food choice, together with price and value for money, this anxiety may increase significantly.

This discussion has served to offer further impetus for action as described in the current Maltese Food and Nutrition Policy and Action Plan for Malta (HPDPD, 2014). This plan outlines a number of sound priority action areas, several of which are being implemented, albeit to different degrees. Developing local capacity for research in the area of food and nutrition; conducting laboratory studies to provide food composition knowledge of local food products; introducing mechanisms to reduce salt and sugar, limit saturated fat and eliminate trans fatty acids existing in local and imported food products; consolidating current school initiatives to promote and protect healthy diets; enhancing workplace health promotion with regards to food availability and consumption; evaluating the impact of less healthy food marketing pressures on children from mass and social media and enacting legislation as necessary; engaging with the agriculture and fisheries sector on the promotion and affordability of fresh fish, vegetables and fruit; and carrying out feasibility studies on fiscal/price policies in order to create a framework of incentives around healthy food are all actions related to the findings of this study and which can help ensure accessibility to HCF foods for all the Maltese population.

5. Conclusions and Recommendations

This study has served to reinforce that complexity in HCF food access prevails in Malta as it does internationally. Food choice is guided by interactions between internal factors, such as personal financial resources and various attitudes related to age and time usage, and external factors, such as information and education, culture, and the economic environment as related to food marketing, availability and policies. As such, individual food choices reflect aspects of beliefs, expectations, learning mechanisms, habitual behaviours, as well as physical, cultural and financial availability. Provision strategies of food producers and retailers are both shaped by and shape consumer demands and behaviours. In some instances, the outcome is mutually beneficial; in others, one or the other players in the food supply chain may suffer. As expressed by participants in this study, the price of food has a significant role in the holistic wellbeing of the producer and retailer. On the other hand, for consumers, whilst cost of food is given due consideration, the ideal of sensorial, nutritional and quantity satisfaction is important. It seems that, for many consumers, time is a barrier to informed food choices and also to acknowledging the labour efforts of and building a relationship with producers. Indeed, this disconnect with consumers is a sore point with local growers and producers. Understanding the potential contribution of these various influences on food choice and behaviours has also served to highlight potential avenues for intervention and for further research.

5.1. Suggested ways forward

Given its grounded nature, the study has helped to render some pertinent insights and conclusions around the main research question, which one must consider within the limited nature of the sample. It has also prompted a number of conclusions and recommendations, which are presented here:

Conclusion 1. Current and past food and health-related policies seem to have been partially successful in relation to food provision, knowledge and behaviour, yet their remit has been restricted with respect to food system change.

Recommendations

- a. It is recommended that further research is done on (i) local agriculture and its commercial potential; (ii) past and current government programmes based on national food policies, including education on health and nutrition in schools and public health awareness campaigns, to assess their effectiveness; and (iii) the educational and advocacy efforts of non-profit organisations and civil society in this regard. Existing government policies concerning health, agriculture, sustainability, education, marketing and taxation should also be reviewed, in particular for alignment and complementarity with regards to providing a HCF food environment accessible across socio-economic groups. Past and current public campaigns promoting consumption of local fresh foods such as the 'Kul Hut Frisk' and the 'Ikel ta' Kwalità' should be evaluated and built upon.

- b. Setting up additional Farmers' markets in more strategic localities around Malta could help increase exposure to local HCF foods and possibly facilitate acquisition and consumption of these foods with mutual benefits to consumers and growers/producers. These markets could also serve as a fixed venue for promoting the various public campaigns and quality schemes through different initiatives.
- c. There is a lack of outreach and incentives to help support small Maltese farmers who cannot access EU funds and who could be aided by subsidies and measures set up by the local government. It is hoped that once finalised and set in motion, the National Agriculture Policy 2018-2028 (MESDCC, 2018) and related policies will provide stronger measures and support systems to aid small-scale farmers and grass-root initiatives both in terms of financial aid and knowledge transfer.
- d. A specific policy in Malta that has been blamed on hindering restaurants and/or other food provisioning industries from providing more HCF food at accessible prices is the 18% VAT attached to these establishments. In most other EU countries, a lower rate (0-8% VAT) is applied for labour intensive industries, including restaurants and other food provisioning industries. It is recommended that the VAT rate in Malta is re-assessed by the appropriate authorities.
- e. Government could consider giving vouchers which can be exchanged for fresh vegetables and fruit from Farmers markets, or fresh fish from local fisherfolk/vendors, to low income households or those who receive free medicine for certain diet-related non-communicable diseases, and who are eligible for the vouchers after a means test.

Conclusion 2. There are disparities between food experts'/academics' perceptions of the local food system and the perceptions of consumers.

Recommendations

- a. Given the contrast in perceptions of those who work in various parts of the food sector compared with food choices consumers made in market observations, it is plausible that what consumers value is poorly understood. More extensive research should be conducted on consumer valuation of HCF foods and WTP for HCF foods and tangible facilitators and barriers to choosing these foods to help bridge this gap in knowledge. Developing a deeper understanding of food choice may also help shape future marketing campaigns aimed at promoting consumption of HCF food by focusing on some of the key features that consumers deem the most important, such as aesthetics and portion sizes, apart from taste.
- b. Identifying, valorising and learning from successful national and international campaigns, such as initiatives to encourage efficient collaboration between local small food producers and artisans, can help these same producers and artisans make their products more commercially viable and publicly known.

Conclusion 3. Time 'perceived' limitations pose a significant barrier toward consumption of HCF foods.

Recommendations

- a. Due to factors such as people spending more time at work and traditional knowledge (regarding foods) and practices forgotten over recent generations, it is plausible that a vast majority of Maltese feel there is no time for reasoned food decision-making and 'from scratch' and/or home-based preparation. In conjunction with this notion, cooking is perceived as something that takes too much time, despite a plethora of modern labour-saving tools available. Conducting research to better understand how such perceptions and societal pressures feed into current relationships with food may be essential for promoting healthy eating habits inside and outside the home, for planning weight management programmes and community courses on sustainable resource management, and for addressing the influence of various work-related stressors and challenges on home management around food provisioning.
- b. Building on available evidence, the compulsory Home Economics school curriculum could be reviewed and extended to older teens and youth to make teaching and learning even more in synch with the time-strapped lifestyles of individuals and families and thus help develop practical knowledge and skills among students.
- c. A research-in-action study focusing on the use of mass and social media to show the general public shortcuts for reasonably priced meals based on HCF foods could be facilitated and financially supported jointly by different government agencies, given that interested educators may not have the financial resources and technical skills to pitch for prime air time on TV stations or develop web-based items.
- d. A research-in-action study to plan, implement and assess the effectiveness of worksite-based educational campaigns on HCF foods could also be funded through trans-ministerial agreements (e.g. education, health, agriculture, industry, family).

Conclusion 4. Provision of information does not always result in better informed consumers or lead to positive changes in food choice behaviours.

Recommendations

- a. Findings in this study reinforce the call for further research on the most effective means of engagement for information provisioning. We need to distinguish between different types of consumers in relation to their needs and interests in food, nutrition and sustainability information. Consumers form a heterogeneous market, composed of different segments with distinct usage patterns and varying levels of information acquisition potential. Audience segmentation will inform communication strategies that include the development of targeted information provision, which are likely to receive higher audience turnout and engagement, increasing the chances of a gradual positive shift in HCF food choice.
- b. Training opportunities for more effective inclusion of critical thinking and problem-solving teaching and learning, specifically when it comes to making food decisions in both formal and informal educational settings should be strengthened for all teacher trainees and adult educators, in line with transversal themes in the National Curriculum (MEE, 2012) and lifelong learning strategies (MEE, n.d.).
- c. Collaboration between secondary school teachers of Home Economics, Social Studies, Geography, Personal, Social and Career Development teachers, as well as Eco School teams should be encouraged in School Development Plans to offer multi-dimensional perspectives among students on food systems, food production and consumption, to foster sensitisation to related issues, to encourage concrete action through different internal and twinning school projects, and to offer diverse integrated and experiential learning experiences.
- d. As indicated in the research, health issues could be a good entry point for food-related discussions and awareness-raising programmes. Education programmes that meet people where they are in their concerns ought to be encouraged and designed to allow space for debate to address such concerns, as well as to empower participants to see the links between choices at a local level and the global picture. This could be extended to other suitable entry-points identified through the research, such as intercultural exchanges to encourage the spread of information and knowledge, experimentation with different foods, and the creation of new fora for debates.
- e. Setting up of Community Kitchens promoting HCF foods and practising cooking from scratch could be a long-term initiative run through public-private partnerships or through funding to competent NGOs. This could offer a space for farmer/producer-to-consumer and peer-to-peer knowledge sharing, local food traditions maintenance, cultural exchange and inclusivity, and learning or improving culinary skills. Eventually, they could also serve as innovation hubs and micro-business incubators, assisting their sustainability and fostering entrepreneurial ventures and community development.

- f. Increased efforts to highlight the added value of consuming a MD are required. Consumers may pay more attention to the benefit of a MD for the natural environment, for safeguarding indigenous foods, for local farmers and producers and for retention of traditional recipes and food rituals than for health. Public health and sustainability campaigns can bring these messages to the fore.
- g. At the time of the next revision of the National Dietary Guidelines, which have been based on the health aspects of the MD, a more holistic consideration of the other sustainability principles of environment, economic and social aspects of food consumption need to be integrated. This may also give impetus to local industry to reformulate certain food products and focus more on local sourcing of ingredients when feasible.

Conclusion 5. There is a growing divide between farmers and other stakeholders in the food chain, including consumers, which may negatively affect both sides.

Recommendations

- a. Further research is recommended on studying the emergence of the gap between the farmer and the consumer, such as the divide between what the consumers want to buy and what producers believe will sell. The relationship between farmers and consumers (individuals and families) can be strengthened through diverse, non-formal inclusivity-facilitating community events and initiatives in which Local Councils, educational institutions, civil society organisations and the media may play important roles.
- b. More educational visits to farms and other HCF food producing establishments could be facilitated for schools, through provision of transport and trained 'tour guides'. Relevant government entities could assist farms and other establishments in making these sites student-friendly, and internship schemes could be set up for University and MCAST students (trainees in related areas) to assist with guiding.
- c. Community-owned urban gardening projects can serve as both an added provision for accessible HCF food to communities, as well as providing a safe space and hubs for knowledge-sharing and critical dialogue among all stakeholders, with the aim of both sharing and producing new knowledge. Local Councils together with civil society organisations should collaborate on setting up such initiatives.
- d. The market for HCF food is still relatively small in Malta and until market demand increases, ordering in bulk (which is positive both for the decreased packaging and increased profit margin) remains impossible for most local food producers and providers. Networking between food providers, such as caterers and restaurants, and between food providers and producers, such as individual farmers and farmer groups/cooperatives, could provide a system of risk and burden-sharing which can in turn strengthen small group efforts. Apps could be developed in this regard to efficiently disseminate information

- on producer food stocks and immediate retailer needs, targeting restaurateurs and school food providers who aim to utilise more local, seasonal foods.
- e. A research-in-action study could be conducted to assess the effectiveness of developing alternative food networks in Malta with the aim of introducing different forms of collaborative networks to re-connect and bridge the communication gap between producers and consumers (Volpentesta and Della Gala, 2013). This would allow the development of new forms of relationships and governance of the food network and could also enhance recognition of value of producers' labour, passion and commitment. Community-Supported Agriculture is one such strategy which has been researched, but yet to be trialled and developed fully in Malta (Spiteri, 2011).
 - f. Given that accessibility to food and exposure to aesthetically pleasing food have emerged as possibly significant facilitators for HCF food consumption, research should be conducted on the effectiveness of small local producers selling their HCF foods at weekly open air markets, ensuring that authenticity and presentation are given importance. If necessary, informal training on low-cost marketing and presentation, ideally also abiding by sustainability principles for packaging and information distribution, could be provided through cooperatives, as part of agri-business senior student assignments and internships, or as part of Corporate Social responsibility initiatives of professional marketing firms. Regarding the latter, twinning projects could also be set up.
 - g. Farmers adapt their farm management practices and actively enhance agrobiodiversity to suit changing conditions. It's in the nature of farmers to be practical experimentalists who are best suited to understand the idiosyncrasies of the land they work (Bragdon and Smith, 2015; Weckenbrock et al., 2016). In fact, technologies not invented by farmers -- such as new kits, seeds or chemicals -- are regularly adapted by farmers in different circumstances to fit their needs. With respect to local research and development and formal scientific disciplines, farmers need to start being regarded as more than simply knowledge and service users, but also providers and innovators. Stronger networking should be established so that new technologies, equipment or products are discussed with farmers and they are invited to test and make recommendations as deemed suitable to facilitate local uptake and application.
 - h. A further hindrance to the communication stream between farmers and consumers has been added as a result of the growth of online social media platforms. This makes certain discussions out of reach, particularly from some older generation farmers. For a fair and open discussion to be had, farmers and providers need to be appropriately engaged with, which will likely require offline and in-person authentic conversations through sharing initiatives also mentioned earlier.
 - i. An investigation on how media reports on local food production and agricultural issues is also recommended in order to highlight both strengths and deficiencies, especially with regard to the image presented of local food and local food producers as well as the food system in general. Results from such investigations could also be shared with practising and trainee journalists

during continuing professional development sessions, prompting remedial and positive action as necessary.

5.2. General conclusions

Taking into consideration the growing global and national interest in food and sustainability issues, especially when it comes to health, agriculture, food security, climate change, and entrepreneurial concerns or practices, this study aimed to investigate the following: Can healthy and clean food also be fair – available at a price within reach of low income consumers, without compromising on fair conditions and a decent pay for producers? As an exploratory and descriptive research, a number of internal and external factors which act as barriers and facilitators to HCF food access have been identified and discussed. The task is now to take the original primary research question, along with the others presented in the introduction, and address them in larger-scale and a more long-term investigation, building upon the initial findings presented here.

Even though the intent of this study was not to provide a conclusive answer, the results from this study all point towards the current social, cultural, educational, agricultural, economic and other infrastructural systems as not being conducive enough to making HCF food accessible across all socio-economic demographics. Throughout the process of this research, several more in-depth questions have arisen relating to the original aim of the study. What is certain is that, as has been underlined and recommended by several authorities and researchers (EEA, 2017; HLPE, 2017; HPDPD, 2014; MEYE, 2015; MESDCC, 2018; Swinburn et al, 2013 and WHO, 2018a), there is a need for a suite of policies and actions by the government to provide healthier food environments. Understanding the patterns, processes and actors involved in a local food system augurs for more coherent and effective policy interventions to increase accessibility to sustainable, quality HCF foods, to valorise local foods and food producers, and to reduce environmental pressures along the supply chain; all this with potential co-benefits to human holistic health and planetary wellbeing.

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Appendix 1

'Skeleton' questions for the Semi-structured Individual interviews and Focus Group interviews

Questions:

1. What is your understanding of good quality food?
2. What is your understanding of 'healthy, clean and fair food'?
3. Who do you see as key stakeholders in the area? (Who do you see as having a role to make this type of food more appealing and more accessible?)
4. Based on your knowledge and experience, what are the obstacles for achieving this on a local level?
5. Based on your knowledge and experience, what are the current or potential facilitators for achieving this on a general level?
6. Based on your knowledge and experience, are there issues of accessibility? (All actors including producers, consumers and policy makers – health, agriculture, education) Are there evident differences in consumer profiles (distinguishable social group differences)?
7. Based on your knowledge and experience, are there issues of appeal? (All actors including producers, consumers and policy makers – health, agriculture, education)
8. What are the key motivating factors for people to adopt different/new (healthy, clean, fair) food choice behaviours? Are there differences according to social group?
9. What is your current or potential role in this type of food provisioning, and what are /could be your related difficulties?
10. Is there anything you would like to add that can help us in our research questions?

11. Profit margins (Producers, Clean food suppliers); Spending power (Consumers) – how do these impact or limit or expand your choices?
12. (Consumers) To what extent do you consider price, quality, etc.? (Consumers) What factors influence your food choice (top 5 factors). Price? Taste? Source? Health? Co-ops and collaboration? Box schemes? Preferred sources of food?
13. (Producers, Clean food suppliers) What links are there with consumers? What type of clientele? Ideas for expansion? Marketing? Reaching out?
14. (Educators, nutritionists, weight management support groups, policy makers, clean food suppliers)? In your interaction with different populations, what issues

emerge related to food appeal? And to food accessibility?

15. (Educators, nutritionists, weight management support groups, policy makers, clean food suppliers)? What actions have you taken so far? What, if any, are your plans for the immediate, long-term future? Why?

Appendix 2

The Ethnographic Field Notes Template

Note: Based on Silverman (2006), it incorporates both the descriptive aspect of the observation, as well as reflections and analyses.

Apart from the observation template, anything else that was happening on the site that was deemed potentially relevant to the research question was also recorded. The feeling the researcher had while collecting the data (comfortable, imposter, out of place etc.) was also recorded since this could potentially affect the collection of the data (reflexivity). Any observation that was not clear if it would be important to record or not was also recorded. Suitability was then assessed during the analysis of the field notes.

Ethnographic field notes template:

Ethnographic Field Notes Participant Name:

Date of Observation:

Start Time:

End Time:

Location:

Theme	Field Notes
People	Who is being observed? Who are they with? What is their role? What are they doing? What are they trying to accomplish?
Place	What is the location, setting, environment, and context of the ethnographic observation?
Activities	What happened during the observation? What are the people being observed doing?
Words	What is being said? How is it being said? What vocabulary is being used?
Vibe	What is the tone? What is the emotion? What are the feelings? Are there any biases/assumptions being made by the people?
Things	What are the physical things and objects that are in the environment?
Reflections	Researcher's own positionality, meanings
Emerging questions and analyses	Potential lines of inquiry, theories, common narratives. What do I see going on here? What did I learn from these notes? Why did I include them?
Future action	Including further contacts, ideas

Appendix 3

Menu for the Market Interventions with HCF features indicated

	Ingredients	Minimally processed	Local	Seasonal	Organic	Fair trade
FALAFEL (with salad and pitta - optional) Brown paper bag Falafel with tahini sauce (1 Euro) Falafel with tahini sauce and salad in pitta (3 Euro)	Chickpeas and broad beans	x	x	x		
	Chickpea flour	x				
	Tahini (organic)	x			x	
	Quinoa (organic and fair trade), tomatoes, onion	x	x		x	X
	Pitta	x				
CHEESE QUICHE (10cm) Cardboard plate and brown paper bag (1.50 Euro)	White flour (organic)/ wholemeal flour Poly- unsaturated fat (trans fat free)				x	
	Ricotta and ġbejniet	x	x			
	Peas	x	x	x		
	Eggs (organic)	x			x	
STRAWBERRY MUFFINS Paper cases and brown paper bag (1 Euro)	White flour (organic)/ wholemeal flour				x	
	Coconut oil (organic and fair trade)	x			x	
	Sugar (fair trade)	x				X
	Eggs (organic)	x			x	X
PUDINA Brown paper bag (0.80 Euro)	Stale bread	x				
	Dried fruit (organic and fair trade)	x			x	X
	Cocoa powder (organic and fair trade)	x			x	X
	Pumpkin and sunflower seeds	x				
LEMON ORANGEADE Paper cups (0.60 Euro)	Lemons and Oranges	x	x	x		
	Fresh mint	x	x			



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