2014

Effects of Globalization on the Use of the Mediterranean Diet in Spain

Jacob J. McGee

University of Mississippi. Sally McDonnell Barksdale Honors College

Follow this and additional works at: https://egrove.olemiss.edu/hon_thesis

Part of the Nutrition Commons

Recommended Citation


https://egrove.olemiss.edu/hon_thesis/404

This Undergraduate Thesis is brought to you for free and open access by the Honors College (Sally McDonnell Barksdale Honors College) at eGrove. It has been accepted for inclusion in Honors Theses by an authorized administrator of eGrove. For more information, please contact egrove@olemiss.edu.
Effects of Globalization on the Use of the Mediterranean Diet in Spain

2014

by

Jacob McGee

A thesis presented in partial fulfillment of the requirements for completion of the Bachelor of Arts degree in International Studies

Croft Institute for International Studies
Sally McDonnell Barksdale Honors College
The University of Mississippi

University, MS

Approved:

Advisor: Dr. Kathy Knight

Reader: Dr. William Schenck

Reader: Dr. Minjoo Oh
## Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Abstract</td>
<td>3</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
</tr>
<tr>
<td>Literature Review</td>
<td>6</td>
</tr>
<tr>
<td>Methods</td>
<td>28</td>
</tr>
<tr>
<td>Results</td>
<td>30</td>
</tr>
<tr>
<td>Discussion</td>
<td>38</td>
</tr>
<tr>
<td>Conclusion</td>
<td>40</td>
</tr>
<tr>
<td>Bibliography</td>
<td>42</td>
</tr>
</tbody>
</table>
Lists of Tables and Figures

Tables

1. Kg of food consumed by year at home and in hotels and restaurants, and population
   32
2. Consumption in kg of total oil and olive oils by year.
   36
3. Foods consumed in kilogram/liters per year
   38

Figures

1. Total food sold in millions of kilos by year for home, hotels and restaurants, and total
   33
2. Census data from the Instituto Nacional de Estadística (The National Institute of Statistics)
   34
3. Kg. of foods consumed at home and hotels and restaurants over time and population growth.
   35
4. Figure 4 Consumption of total oil and olive oils with linear regression lines fitted to the data .
   36
5. Kilograms of Mediterranean foods and Western foods consumed from 1999 to 2009 over time.
   39
Abstract

Spain is known for its sandy beaches, vibrant nightlife, and incredible foods. The Mediterranean diet of Spain is praised for its health benefits, but recently it appears that the population has begun to turn away from their original diet. Studies have shown that the Spanish have been experiencing a constant culture change due to globalization since the 1950s when the General Francisco Franco allowed the technocrats to have some control over the government. With a new economic policy, new people and their new ideas flooded the country bring with them their cultures. These cultures influenced the Spanish life changing many parts of it including its diet. Using data collected from El Ministerio De Agricultura, Alimentación Y Medio Ambiente and El Instituto Nacional de Estadística data was tested to see if the change in diet was actually occurring. Three tests were ran, one testing the rate of eating in home compared to at hotels and restaurants, one testing the adherence to traditional Mediterranean foods compared to those considered Western, one testing the adherence to olive oil. The results showed that the rate at which Spaniards were eating at hotels and restaurants was increasing greater than the rate of eating at home. There was a decrease in adherence to traditional Mediterranean while adherence to Western foods increased. These tests suggest that the diet is changing. The literature on the subject points to the cause being that of a cultural change caused by globalization. These changes could cause possible health risks in the future.
I. Introduction

Many diverse communities populate our world and eventually the usual or “normal” way of life in communities evolves into a culture. Culture is influenced by what clothes people wear, what language they speak, what religion they follow, and what foods they eat. No one is exempt from its persuasion. Each population has its own individual culture that is shaped, at least in part, by the region that it inhabits. One part of that culture is dietary pattern, the snapshot of a population’s food intake. Diet patterns evolve over time and are influenced by many factors. Access to farmland, proximity to oceans, and climate have been some of the major factors that have affected the culture of the Mediterranean region, providing the necessary ingredients to create one of the healthiest dietary patterns in the world. The Mediterranean Sea provides many species of fish and shellfish, and the land surrounding the Sea supports many types of animal and plant life. Also being so near to the birthplace of three of the world’s major religions has helped to identify the diet in the region because of their religious teachings. For several thousand years, the Mediterranean region has had one of the world’s most distinctive and area-specific diets.

However, culture has been changing very rapidly in the Mediterranean region due to the expansion of technology and increase in travel capability over the past two centuries. Industrialized countries now promote a lifestyle that is business oriented and faster paced. Fewer people are cooking from scratch, and more people are either eating in restaurants or choosing ready-to-heat-and-eat processed foods from the supermarket. This has caused diet quality in the Mediterranean countries to deteriorate. The traditional
Effects of Globalization on the Use of the Mediterranean Diet in Spain

Mediterranean diet based on fish, fruits and vegetables, whole grains, and healthy fats has been replaced with a diet that contains more red meat, sweets, and processed foods. While the traditional diet was based on healthy foods, today people in the region consume a more Western-influenced diet that contains mostly empty calories. Countries whose population never exhibited high levels of obesity or chronic illnesses are now seeing a spike these areas. Ironically, although knowledge about medicine and the human anatomy may have been less, our ancestors may have known how to eat more healthfully than the more advanced society of today.

Globalization is a major factor in changing the diet pattern of the Mediterranean region. Although Spain has only recently opened to many outside influences, it is now a member of the European Union and a modern country. It is located on the northwest portion of the Mediterranean Sea, and the people there enjoy every food that the Mediterranean region can offer; yet, chain restaurants full of processed foods and fast food establishments are gaining much ground in the country, despite the fact that these foods have been proven to negatively affect health due to high levels of saturated fat and salt. Globalization also brought with it a more Americanized culture that disrupts the typical dietary patterns of the modern Spanish family.

Though it took several more centuries to efficiently connect the world, the concept of globalization arose in Spain when Christopher Columbus, the explorer, discovered the Americas, connecting the East with the West. If the Spanish began globalization, then the British Empire and American Republic perfected it. They sent their ideas and culture around the world to be adopted by all. The diets of Great Britain
Effects of Globalization on the Use of the Mediterranean Diet in Spain

and the United States greatly influenced the modern Western diet, which contains many foods that are high in sugar and salt – two tastes that are intrinsically preferred by humans. Due to the pleasant taste of that food culture, native dietary patterns are being abandoned and the Westernized diet is being adopted. The modern diet of Spain is different now from the traditional Spanish Mediterranean diet because of globalization.

II. Literature Review

Main Dietary Patterns of the World

The earth can be separated into many different divisions - by political borders, by language barriers, or by dietary patterns. Each region of the world has its own unique diet that fits into a larger dietary pattern. The people of the South Asia region have a diet relatively high in fat. The Muslims consume a lot of saturated fats from beef and lamb. And the Hindu vegetarian diet, contains vegetable oils, which are high in polyunsaturated fats. Their main carbohydrate choice is rice that is usually minimally processed and has a low glycemic effect, and curry is a prevalent flavoring (Patel 104-106).

The dietary patterns of Africa are divided into four sections; West, East, North, and South. The northern part has a Mediterranean diet because of its location on the Mediterranean coast. The South has the greatest diversity of fruits and vegetables with the staple food being rice or cornmeal. People of the East eat beef, goat, and sheep as their protein source, and their main foods are potatoes and a grain called teff. In the inland parts of this region, food is not prepared with much seasoning while nearer the coastline, plenty of garlic and peppers to are used to spice up dishes. Muslims mainly
inhabit the West and eat most animals except for pork. The principal carbohydrates are root-based foods such as yams. Their stews are usually heavily spiced and they eat a large selection of vegetables (Smolin).

The South American diet has been greatly influenced by the Mediterranean diet through the Spanish conquests. Their staple grains are corn, quinoa, and rice; these are consumed multiple times a day. Due to the climate, there is an abundance of exotic fruits and vegetables making the South American diet a very colorful and nutrient-rich regime. Red meat is consumed less regularly than chicken, and seafood is consumed once or twice a week. (Smolin).

Northwestern Europe, the United States, Australia, and many other developed countries also have a unique dietary pattern. The modern western diet began in the 1950s with the beginning of convenience foods and fast food restaurants and continued into the 1960s, as these corporations became giant international conglomerates. They made foods that were higher in saturated fats in order to increase taste and shelf life and introduced the idea of hamburgers and French fries on every corner. Because these highly processed foods being could be produced so cheaply, the original fast food restaurants made large profits with which they could build more restaurants. Fast food became a staple of the diet. Since the shelf life of sugary treats had been increased, supermarkets became a haven of Little Debbie snack cakes and Hostess’ Twinkies. The availability and low cost of these foods made them a significant snack choice for families in these countries (Smolin).
The Mediterranean Diet

Another of the major dietary patterns is the Mediterranean. Twenty-one countries border the Mediterranean Sea, and each has its own form of the Mediterranean diet. Although many scholars have searched for it origin, the roots of the Mediterranean diet are not completely known. However evidence of its history in the region is copious. The writings of Homer and other famous classical poets describe the diets of the ancient heroes and noblemen. Religious texts of that region denote the diets that their followers should adopt. Through analysis of large amounts of archeological remains such as food debris, mummified human stomach and intestines and the remains of animals and plants, scholars have deduced that there was an abundance of different types of plant and animal foods, spices, alcohols, and sugars in this ancient diet (Marion 1313S – 1314S).

Greek tradition was replaced by the Romans, who conquered the entire Mediterranean region. Their diet focused on three main foods: bread, wine, and oil, especially olive oil. The poor rural people of the region enjoyed those products along with cheeses, mushrooms, leafy vegetables, and the occasional protein from meats or seafood. The upper classes enjoyed more seafood often fried in olive oil. The three main foods became symbols for the newly adopted Christianity of the Roman Empire and were spread throughout Europe after the fall of Rome with the Christian missionaries. As the Vikings made their way into Mediterranean territories, they tried to bring their eating customs with them; however, because the idea of bread, wine, and oil were so ingrained into the Roman Catholic culture, dietary patterns were not changed. The practice of consuming these three foods together lasted throughout the Middle Ages (Altomare 3).
Effects of Globalization on the Use of the Mediterranean Diet in Spain

Two other events highly influenced the creation of the Mediterranean diet. The first was the spread of Islam, which brought to southern Europe fruits and spices that were once only known to the Middle Eastern regions. Many of the preparation techniques in modern-day Mediterranean cuisine have their roots in Muslim origin. The second event was the discovery of the Americas. Europeans brought new foods back from their travels. Many of these items, such as tomatoes, corn, peppers, and potatoes are so identified with the Mediterranean diet today that many believe them to be native to the Mediterranean region (4-6).

There is no one Mediterranean diet. Rather, “Mediterranean diet” is a collective term that encompasses any and all diets within the Mediterranean region that consist of the same basic characteristics with a few oddities that are unique to each country. The basis of all Mediterranean diets is breads, pastas, rice, couscous, polenta, bulgur, other grains, potatoes, and other plant-based foods. Contemporary diets have multiple servings of these starches in almost every meal. They are minimally processed and rarely contain preservatives. Since bread also lacks these preservatives, it often goes bad after one day and must be purchased daily (Willett 1403S – 1404S).

Vegetables, fruits, and legumes are consumed in large amounts. These are purchased fresh for maximum flavor and nutrient content (1403S). They deliver all the essential micronutrients such as the vitamins and minerals and provide large amounts of dietary fiber and antioxidants, which promote better health and lower risk for some types of cancer (Smolin 140-142). The Mediterranean people tend to only buy vegetables and
fruits that are in season in the regions where they live. Fresh fruit is typically the dessert portion of meals instead of sugary cakes and pies (Willett 1403S).

Olive oil is the main source of fat and is used for frying and for salad dressing. Olives are native to almost every part of the Mediterranean region (1404S). People of the Mediterranean have used olive oil for millennia without any health problems. Olive oil is very high in monounsaturated fats and low in saturated fats. It also has antithrombotic, blood thinning, effects. Research has shown that consuming monounsaturated fats increase low-density lipoproteins, more commonly known as “good” cholesterol (Hensrud 1-4). The amount of olive oil consumed differs in each region of the Mediterranean. Greece and Italy tend to use higher amount of olive oil than other countries. One interesting fact is that even though olive oil consumption is high, the total dietary fat content is low compared to the other macronutrients and when compared to other diets from around the world, especially the Western diet (Willett 1404S).

Dairy products are consumed in low to moderate amounts (1404S). The Mediterranean climate is usually too warm for milk to be kept without refrigeration; therefore, it was not drunk in these areas as it was in the areas of northern Europe. Cheese and yogurt, however, do not require as cold of temperatures to maintain their shelf life (Smolin 122 – 123). Cheeses are not eaten alone, but are usually consumed on pastas and other cereals (Willett 1404S – 1045S). Although the cheeses tend to be high-fat cheeses, there seems to be no ill health effects.
Red meat, poultry, fish, and eggs are eaten in low to moderate amounts (1405S). Historically only the wealthy ate animal products on a semi-regular basis (Altomare 3). Fish are usually eaten three to four times a week, because due to the large quantities of seafood accessible in this region, fish is relatively less expensive and more available than in the United States and northern European countries (Willett 1405S). Fish are lean and are high in Omega 3 fatty acids, which lower the risk of atherosclerosis (Ehrlich 1-4). Red meat consumption differs dramatically among the Mediterranean countries. The Muslim countries and Israel do not eat pork due to religious ideologies (Quran 16:115; Leviticus 11:7-8), but some pork is eaten in Spain.

Although wine drunk in moderation with meals is thought to be characteristic of the Mediterranean diet (Willett 1405S), this is not true for all. In Muslim countries, the consumption of wine or any type of alcoholic drink is prohibited. However, in the European Mediterranean countries, men generally have two glasses of wine per day while women consume only one glass. Drinking wine in moderation, especially red wine, has been shown to lower risk for coronary heart disease (Willett 1405S). Also, red wine contains a chemical called resveratrol that is said to help maintain the skin’s elasticity, preserving one’s youth (Afaq 682).

The final factor to look at when considering the health of the region is the exercise component. Although not normally associated with the idea of a diet, physical activity also plays a major role in the lifestyles of the Mediterranean people who tend to exercise more than people in the United States. The cities are compact, and people walk to their destinations (Willett 1405S).
The Mediterranean diet has been associated with low rates of all chronic diseases. This is because of the high nutritional value of the foods consumed and the emphasis on exercise that the lifestyle promotes (Schroder 3355). Olive oil is very high in monounsaturated fats. Monounsaturated fats have been shown to lower cholesterol levels and reduce plaque build-up in arteries. They also have anti-inflammatory effects in the body. They are also high in vitamin E, an antioxidant that protects against arterial damage (Hensrud 1–5).

Although red meats contain significant amounts of protein and iron, which is good, registered dietitians generally recommend lower consumption of red meats and higher consumption of plant-based foods to people suffering from diabetes or hypertension because red meats can contain high amounts of saturated fats and cholesterol (Mayo 13–16). This may change soon however, as several recent studies have refuted the idea that saturated fats cause an increased risk for heart disease and hypertension (Kuzemchak 7). Most dietitians and researchers, however, still accept the idea that saturated fats have negative effects on one’s health. Because the Mediterranean diet does not focus on the consumption of meats, especially red meats, the risks for these health problems are dramatically lower in Mediterranean countries than in the United States (Estruch 1284 – 1288).

The Mediterranean diet is also high in non-processed plant-based foods. Non-processed plant-based foods usually contain a variety of vitamins and minerals needed for several bodily functions and are good sources of fiber (Willett 1404S). Grains, such as wheat and barley, have three layers, the endosperm, bran, and the germ. When a grain is
processed, the germ, the source for healthy oils and Vitamin E, and the bran, the source for fiber, are taken off and only the endosperm, which is mainly starch, is left. This strips the grain of the fiber, vitamins, and the minerals that it contained leaving much starch and a little amount of protein. It becomes basically empty calories. Fortunately during the early part of the last century, scientists realized this, and now processed grains are enriched. Enriched grains have had the B vitamins returned to them; however, they still lack the fiber that they once had (Smolin 113). The Mediterranean diet consists of whole grains, which contain more fiber than enriched grains.

The Mediterranean diet provides an abundance of dietary fiber, which is one of the most important parts of the diet. There is research evidence to suggest that fiber lowers risks for many types of cancer, heart disease, hypertension, and diabetes. Humans cannot digest fiber so as it moves through the gastrointestinal tract (GI), it increases the speed of food as it travels through the GI, forms a barrier so that the nutrients are absorbed more slowly, absorbs leftover cholesterol from the digestion process, and retains water in the colon (120, 125).

**Dietary Practices of Modern Day Spain**

Spain is classified as a Mediterranean country because it has a coastline that borders the Mediterranean Sea; therefore, it has a version of the Mediterranean diet. In 2001, the first food guide pyramid was published for Spain, based on Ancel Keys’ original *Mediterranean Food Guide Pyramid* and the work of Sociedad Española de Nutrición Comunitaria. It has three categories for foods: those to be consumed weekly, those to be consumed daily, and those to be consumed at every meal. In the weekly
consumption class are sweets, meats (both red and white), legumes, seafood, potatoes, eggs, and processed foods – but white meats, seafood, and eggs are eaten more regularly than the other foods. In the next category – daily consumption - are low-fat dairy, olives, nuts, spices, garlic, and onions. The final category of consumption in every meal consists of grains and cereals, fruits, vegetables, and olive oil. In the lower sections of the pyramids there are advisements to exercise regularly, drink plenty of water, and enjoy a biodiversity of seasonal, locally grown, and eco-friendly products (World).

The Spanish diet is also characterized by its rather large reliance on pork. The Iberian Peninsula is home to several distinctive types of pigs, the black Iberian pig being the most well known. The Spanish have many names for different kinds of sausage, including their most famous, the chorizo. Chorizo has a smoky taste and a deep red color that comes from the smoked red peppers infused into the pork meat and fat ("Spanish Eating Customs." 11). Jamón ibérico, a cured leg of Spanish ham, is a very popular ingredient and dish in Spanish cuisine. There are entire rows in grocery stores devoted to it. (Barrenechea).

An important aspect of the Spanish dietary pattern is the make up and timing of meals. A typical Spanish breakfast is very light and typically consist of café con leche and bread, fruit, or a sweet. Lunch is the largest meal of the day and is eaten around 2:00pm. It is a multiple course meal with a salad for a starter followed by vegetables or legumes and then protein. Bread is always available, and wine or water is the drink of choice ("Spanish Eating Customs." 6-8).
A snack is usually eaten between lunch and dinner. It is usually just a chorizo sandwich or some other type of tapa or mini-meal (3,9). Dinner is eaten late at night, around 10:00pm, and is smaller than lunch. A normal dinner involves a fried egg and some type of potato dish consumed with a beer (Yardley 2). If a Spaniard does eat a sweet snack or dessert it will probably be churros and hot chocolate. Spanish hot chocolate is unlike American hot chocolate in that it is much sweeter and thicker, usually made with whole milk ("Spanish Eating Customs." 9).

Current meal times were set at the start of the Second World War when General Franco mandated that the meal be changed to that of the Nazis. After the Nazis were defeated, countries like Portugal, who had also switched meal times, reverted back to their old times; yet Spain did not. Farmers continued to use the sun to dictate when to eat, but the urban citizens followed the Franco’s plans. Franco’s also instructed the radio and television stations to broadcast the news two times a day. Once at 2:30 pm and again at 10:00 pm corresponding with the set meal times. This helped solidify them as part of the Spanish culture. (Yardley 10-13)

Agrarian Society

In order to completely understand the changes happening to the Mediterranean diet in Spain today, one must understand the society and diet of Spain in the past. The country of Spain, as people know it today, did not begin to form until 1469 with the marriage of Ferdinand II of Aragon and Isabella I of Castile. Despite this union the kingdoms of Aragon and Castile remained separate until the reign of their grandson Charles I, heir to the crown of each kingdom. As time progressed, these two countries
Effects of Globalization on the Use of the Mediterranean Diet in Spain

began to incorporate the other kingdoms of the Iberian Peninsula. In 1492 they successfully expelled the Moors from the South back into Africa while, at the same time, Christopher Columbus discovered the Americas on behalf of the Spanish crown. Throughout the next century, the united kingdoms of Aragon and Castile expanded their boarders to include all of its colonial claims in the Americas, the Netherlands, several kingdoms in Germany, Sicily, Sardinia, the kingdom of Naples, and the rest of the peninsula, excluding Portugal (Carr 116-133).

Due to many revolutions, power changes, wars and other political movements, Spain lost many of its territories not located within the peninsula. Today Spain includes the Balearic Islands, Canary Islands, two separate cities in Northern Africa on the Mediterranean coast, and all the land inside the Iberian Peninsula, excluding Portugal and Andorra. Altogether there are seventeen autonomous communities and two autonomous cities, Ceuta and Melilla ("Spain.info."). According to the Instituto Nacional de Estadistica from the World Bank in 2012, Spain’s population was registered at 42.27 million people with its most densely populated areas being on the Mediterranean coast and in Madrid (World Bank).

Spain continued to have a largely agrarian society until the twentieth century. In the year 1900, its population had reached about eighteen and half million people, and sixty-six percent of them were farmers by trade. The Spanish economy was highly dependent on agriculture. The main crops during this time period were cereals farmed via the technique of dry-farming due to the rainfall irregularity (Collantes 78-79).
Effects of Globalization on the Use of the Mediterranean Diet in Spain

The beginning decades of the twentieth century showed increased productivity and living standards for the rural farmers of Spain. Yields increased with the introduction of chemical fertilizers and farm machinery. With the spread of the railroad and the amalgamation of the national market, farms began to specialize more. By the end of the Second Spanish Republic, literacy rates among the rural populace were up and the people had increased revenues, higher dietary quality, and longer live spans (79-80).

However, living standards began to decline with the start of the Spanish Civil War (79). Much of the land was ruined and a portion of the fields laid fallow while their owners fought in the war. The war destroyed the Spanish economy, which would not recover until the fifties (Carr 253-257). The rural economies were depended on agriculture and were exempt from industrialization and urbanization. Only the few metropolitan centers of today had the luxury of industrialization until introduction of the technocrat’s policies (Collantes 79).

Change in Government

During the 1930s King Alfonso XIII went into exile after the municipal elections of many anti-monarchist officials, and radical left-wing politicians dominated the Second Spanish Republic. Although the Spanish people celebrated the birth of a republic, it did not endure for long. The Republic, which was set up under the ideals of the left-wing political parties, was born during a time of great economic turmoil (Carr 243-253). The system was too young to handle the problems of rising unemployment and poverty in cities. Riots and mobs began to break out, and the staunchly Catholic villagers were upset
about the left-wing’s decisions to remove the church’s teachings from public schools. The parties became polarized with the fear of the growing ideology of communism moving in from the east. In 1936 civil war broke out. For three years nationalist movements that were led by Francisco Franco and backed by Hitler’s Germany and Mussolini’s Italy, fought against the republican side backed by the Soviet Union. In 1939, Francisco Franco won the war and was declared *El Generalísimo*. He dissolved the Spanish parliament, became both head of state and government, and restored the Kingdom of Spain (Stewart, 157-169).

Franco ruled Spain from his ascension in 1939 to his death in 1975 (Murphy 183). The first decade of his rule was the strictest period. He silenced all political opposition, and political parties that were not Franco’s were outlawed. Using censorship and intimidation, he pitted different political factions against one another. Using the military, he put many opponents in concentration camps where they were forced to do manual labor, and freely used the death penalty and prison sentences to quell any possible agitators of the peace (Carr 264-270). Franco ruled with authoritarianism, Catholicism, nationalism, and anti-communism. Trade unions became illegal and continued to remain illegal throughout his entire reign. The use of the regional languages of Catalan, Euskara, and Gallego were banned (Kurlansky 177-193). The Catholic Church was set up as the church of the state and the only true religion. This declaration made sure that all civil servants were indeed Catholic. Another consequence of this was that divorce became illegal along, with abortions and contraception (Carr 268).
Franco’s economy was set up as an autarky, meaning that it was completely self-sufficient. All international trade was cut off and the previously ailing economy stagnated. The Spanish Civil War had ruined the Spanish economy. Already suffering from the Great Depression, the war killed many people, destroyed many businesses, and damaged infrastructure. Spain was neutral during The Second World War, even though she supported the Axis powers. After the war the economies of the European countries rebounded while Spain’s remained in the same dismal situation. (Carr 266-268). Since Spain had not participated in the Second World War, it was not entitled to any funds from the Marshall Plan to rebuild the European economies. These years became known as the años de hambre or “the years of hunger”. The fields laid fallow. The dogs and cats disappeared from the streets either because they had starved to death or had been eaten by the people. The electricity in cities like Barcelona was only turned on for part of the day. Cigarettes were sold one by one instead of by the carton. It became obvious that Franco’s autarky plan had failed (Hooper 13-14).

Franco reluctantly employed the technocrats of Opus Dei to help reconstruct the economy. He accepted their plan to push the economy toward a free market system and open up trading outside the state. However, Franco still kept some of his old policies and although the economy during the 1950s picked up slightly, it soon ground back down. It was only in 1959, when Franco gave up the majority of his ideological economic policies and ministers with more technocratic ideas did the economy then blossom and start the “Spanish Miracle,” an extreme economic boom in which Spain went from almost a third
world country status to the ninth largest economy in the world. This was the second largest economic growth in the world, only behind that of Japan (Hooper 11-25).

The industrialized world had welcomed Spain. The miracle ended the era of Spanish autarky completely. The technocrats initiated the miracle through public stock in infrastructure growth and marketing Spain as a tourist destination. The effects of the miracle were widespread. A large middle class was created. Spanish per capita income peaked at four fifths of that of the European Union at the time (11-25). This was impressive considering where they were before the miracle. A manufacturing boom occurred in the north in the old industrial centers of Bilbao and Barcelona. These cities grew and bloomed and became the richest parts of the country (Carr 278-279).

During this time, there was such a low living standard compared to that of the cities that there was a mass rural migration in which the poor young villagers of rural areas and the poor southern Spanish traveled to the big cities of the north or to the city of Madrid to find better lives. To take their place in the southern community of Andalucía there has been a boom of external migration of northern Africans moving in (Hooper 13-18).

The last major effect of the “Spanish miracle” was the number of tourists it brought in. Because of its lack of natural resources, Spain needed large amounts of foreign trade and capital in order to pay for the hasty development of its industry and infrastructure, so the technocrats pushed for the promotion of Spain as a tourist hotspot (Apostolopuolos (18-19). In 1962, the United States loaned 1.9 million EUR to Spain for the development of their tourist infrastructure. They turned the coastlines into ideal
locations for Europeans and wealthy Americans to vacation. American hotels such as the Hilton Corporation entered the country. Tourism brought in people and their money from all over the industrialized world. In 1964, Spain was chosen to be Europe’s number one tourism spot. The hotels, restaurants, clubs, and resorts built needed workers and, therefore, the tourism industry created more jobs for the Spanish people. Population exploded in the coastal towns. At its zenith in 1970 about ten percent of the GDP was due to tourism. Today Spain is still known for its beautiful sandy beaches and its wild and crazy nightlife (Spain 16-19).

Franco died in 1975, and Juan Carlos I reestablished the monarchy. He and the newly elected democratic government completely opened up Spain’s economy to the outside world, and the nation entered the European Union (Hooper 26-34). On January 1, 1999, the euro replaced the peseta in the stock exchanges, but it was not until 2002 that the euro was introduced in Spain, and the peseta lost its monetary value. When Spain adopted the euro prices on items went up because one hundred pesetas, which was equal to sixty euro cents, equaled one euro when exchanging currency at the banks. This means that, although officially there was no change, prices for many products did increase (Carr).

**Modern Day Spain**

Spain has changed a lot in the past few decades. The government went from being a fascist dictatorship to a democracy. The political system went from having one political
Effects of Globalization on the Use of the Mediterranean Diet in Spain

party to having several different parties fighting for control of the government. The government switched from a socialist party to a conservative party (Hooper).

The community of Catalonia and the Basque Country are calling for independence. Both regions are linguistically different from the rest of Spain. Catalonia speaks Catalan and was originally under Aragonese rule, but when the crowns united Catalonia became a part of Spain. Through the years Catalonia has tried to secede (Hooper 252-264). The most recent attempt was in December 2013 when the Catalanian president called for a referendum to let the general Catalanian populace vote for secession from Spain (Goodman).

The Basque have been wanting to secede in a different way. While Catalonia is trying in a diplomatic manner, the Basque Country has a terrorist organization, ETA. Recently ETA disbanded, but many of the Basque people still want their independence. The Basque language is older than Latin. The area is surrounded by mountains and dense forests, and the Romans did not conquer this region in the same way they conquered central and south Spain. The Basques tend to think of themselves not as Spanish but as Basque (Hooper 231-251).

The roles of women in Spain are changing. Women have always been in charge of the homekeeping and child raising. Now women have taken on a secondary role as providers, because the cost of living has increased, and families need extra income. Spanish culture has changed so that women now are a major part of the Spanish workforce. They are not as accepted in the workforce yet as their counterparts in northern
European countries, but they are gaining much ground. Women tend to have part-time jobs earning a little supplemental cash for the home. Because the culture though is still very sexist, many women are encouraged to stay at home and not return to their full-time jobs after having their first child. However, more woman are obtaining and keeping full-time jobs, so they now have three roles. Because they are stretching themselves so thin, women no longer prepare meals like they once did. Quick Western foods are being substituted for Mediterranean cooking due to the lack of time and energy (Hooper 123-133).

With the tourism boom and Spain now participating in European and global markets, dietary practices started to change. Tourism brought in American entrepenuers with profitable ideas for restaurants that stressed quanity over quality. Ethnic food eateries popped up in cities. Fast food restaurants made their debut. Most bars, which served tapas, remained unaffected, but the average restaurants were forced to change their menus, styles of cooking, and atmosphere in order to compete. Some Spanish restaurants made themselves chains (Hooper 20-26).

McDonalds has been in Spain for over thirty years. The first McDonalds opened in Madrid in 1981. Since then, McDonalds has expanded to all the communities of Spain. There were four hundred twenty-seven restaurants in 2011 providing twenty one thousand jobs for the Spanish people. McDonalds celebrated its thirty year anniversary in 2011 by creating the McIberia. This sandwich is supposed to be the epitomy of Spanish flavor. It combines Spanish rustic bread with 100% beef patty, ketchup, Spanish ham,
and Manchego cheese. It was offered to the Spanish public as a thank you for years of patronage (“McDonald’s 1,3,5).

McDonalds also promised to multiply its numbers. According to the Spanish newspaper La Vanguardia, McDonalds planned on adding fifty-five new restaurants in Spain by 2013 creating twenty seven hundred new jobs. The newspaper reported, “Desde la apertura del primer restaurante McDonald's en la Gran Vía madrileña en el año 1981, la compañía se ha convertido en un importante agente socioeconómico en nuestro país.” This translates to “Since the opeing of the McDonald’s restaurant in the Gran Vía in Madrid in 1981, the company has become an important socioeconomic agent in our country (11, 13-15).

American fast-food industries are not the only facet of American culture invading Spain. The pop culture of the United States is as influential to the world today as France was to the world in the 1700s, and is the driving force behind many of the changes in Spanish culture today. Spanish radio stations play American songs with English lyrics. American-style television shows, including everything from gameshows to reality TV, have gained much popularity. American video games have cativated the Spanish youth. Coca-Cola can be seen in every restaurant and grocery store. There is even an article of clothing called an Americana. American culture is everywhere in Spain (Hooper).

Health Effects

The life expectancy in Spain is eighty-two years which is higher than the global average of just seventy. According to the Organization of Economic Cooperation and Development (OECD) Spain spends about 9.6% of its gross national product on total
health spending. The report from the OECD says that the biggest health risk for the Spanish public is their prevalence toward smoking; however, it does warn about the growing rates of obesity in the country (Spain: Health) Right now the amount of people in Spain who are obese is 16% compared to the United States’ 34.9% (Adult 1). Other conditions associated with obesity are chronic heart disease, hypertension, diabetes, and asthma. A significant increase in the rate of obesity could drastically affect the cost of healthcare in the future (Spain: Health).

While the Mediterranean diet is full of vegetables and fruits that provide many of the minerals, vitamins, and other essential nutrients that the human body needs in order to properly function, the Western diet is less healthy. The Western diet lacks many micronutrients and is low in fiber. The diets of many are full of processed foods, potatoes, high-fat meats, and sugar-containing beverages and foods. Although the diet contained foods with plenty of vitamins and minerals at one time, due to an increase in the use of mass produced, overly processed foods, these essential nutrients are found less in meals and more in supplements.. (Smolin).

Vitamins and minerals are very important to one’s health. They are substances that humans cannot make on their own (with the exception of vitamin D.) The B vitamins, typically found in grains, vegetables, and fruits; help with cell metabolism and proper brain functions. These vitamins are stripped from the grains during its processing. The other vitamins act as antioxidants, protecting body tissues from damage due to free radicals (Smolin, 110-155). Free radicals are by-products of cellular respiration, and during cellular respiration protons are transported through the electron transport chain.
creating ATP, which the body uses for energy. The proton at the end of the chain is chemically bonded to an oxygen molecule; however, the oxygen is now only incompletely bonded. Because the oxygen can still covalently bond to more atoms, it has the potentially to bond to susceptible parts of the cells. This causes great amount of cellular damage and could even lead to cancer if it bonds to the DNA. Antioxidants bond with free radicals before they can harm the cell. Lack of antioxidants leads to cellular damage which leads to a higher chance for cancer (Savada, 177-181).

The Western diet is also low in the amount of fiber needed by humans, which is detrimental to health because fiber performs so many important functions. Constipation prevention, diabetes control, and weight management are only a few of these. Unfortunately, processed grains and products made from them lack the original fiber from bran. Because westerners usually do not eat enough whole grain bread, vegetables, legumes, and fruits, they do not obtain the recommended amount of fiber. This shortage of fiber in the diet has been seen to increase risks of intestinal cancers (Smolin).

Many different protein sources, usually from poultry and red meats, are in the Western diet. Because of this reliance on meats and meat products, the Western diet has traditionally been a source of large amount of saturated and trans fats. However, recently, the negative health effects of trans fat have been exposed and the public is turning away from them. Studies have also shown saturated fats may lead to heart disease. The Western dieter consumes much more saturated fats than they should while consuming very little monounsaturated fats and omega 3 fatty acids. This can lead to an increase risk for stroke and heart disease (Smolin).
Westerners also consume large amount of proteins. Overconsumption of proteins may lead to kidney problems. On average a person from the United States consumes about twice the amount protein that is recommended (Kidney). In the Mediterranean diet, animal food sources are not the main portion of the meal. Vegetables and legumes are (Smolin).

The Western diet also includes a lot of high sugar foods. Although sugar in the form of glucose is needed by the body to perform all of its tasks, eating too much sugar is detrimental to one’s health. When a person eats carbohydrates of any kind whether it is the sugar from ice cream, the lactose from milk, or the complex carbs of broccoli, the body converts it to glucose. The glucose enters the bloodstream, and the pancreas releases insulin to signal to the cells to take the glucose in for cellular respiration (Smolin).

Having too much glucose in the bloodstream can result in several different problems. The first is that a body needs a definite amount of glucose for energy. If one consume less than that amount, then the body will break down adipose tissue for energy. If one consumes too much which is common in the Western diet, the body will turn the extra glucose into adipose tissue for reserve energy when needed. This adipose tissue will be stored around muscles and vital organs putting stress on them. Excess adiposity significantly raises the risk for many different types of chronic diseases seen in the industrialized world (Smolin).

The second problem that overconsumption of glucose causes is the weakening of insulin receptors. As with any hormone, being exposed to insulin for long periods of time
usually desensitizes the body to it. The insulin receptors on the cell will quit
acknowledging insulin, causing glucose to remain in the bloodstream. This is the
beginning stage of diabetes (Sadava).

Another problem related to excess glucose is the excess glucose in the blood.
When glucose is in the bloodstream in high volumes, it will begin to bond with proteins
found in the blood and instigate abnormalities in blood cells. These glucose-proteins
damage blood vessels and heart tissue and can lead to heart attack and stroke. They can
also cause kidney failure, blindness, and nerve dysfunction (Smolin 134).

These are the results of the Western diet. Not only does this way of eating
increase the risk of obesity, but heart disease, stroke, diabetes, and some varieties of
cancer as well. The obesity rates in the United States are at 34.9%. This is the highest that
it has ever been. According to the CDC, “The estimated annual medical cost of obesity in
the U.S. was $147 billion in 2008 U.S. dollars; the medical costs for people who are
obese were $1,429 higher than those of normal weight.” If Spain continues on this trend
of becoming more westernized in it dietary practices, its people, healthcare system, and
economy will suffer (Adult 1-3).

Because of the effects of globalization on Spanish culture, the dietary practices
are changing. Through of analyses of food consumption data, modern dietary practices
will be compared to past years to gain knowledge of consumption trends.

III. Methods

The data used in this study was accessed from El Ministerio de Agricultura,
Alimentación y Medio Ambiente (The Ministry of Agriculture, Health, and the
Effects of Globalization on the Use of the Mediterranean Diet in Spain

Environment) of the Spanish government. This ministry produces a list of consumption data similar to the United States NHANES (National Health and Nutrition Examination Survey) monthly since 2000. In this data, different food groups and food items are listed along with the amount in kilograms or liters consumed depending on whether the food was solid or liquid. A portion of the data was not considered relevant to this study (Spain, La Alimentación) and therefore not included in this analysis. The Ministry also produced reports giving the data of foods sold in kilograms to home, institutions, and restaurants and hotels from 1987 to 2006 (Spain, Evolución). This data is free to the public.

Data Analysis

These data were used to create graphs and regressions to determine whether the dietary patterns are changing in Spain. Three different tests were run. The first test was to show the whether or not the people had eaten more in hotels and restaurants compared to at the home over the past few decades. Data was taken from all the years available through the Spanish government 1987-2006. The data was analyzed using statistical routines in Excel version 2011. The differences in correlation coefficients were evaluated using z-tests (Analysis).

Next consumption data from 2000 to 2008 from the Ministry of Agriculture, Health, and the Environment was used to correlate consumption of olive oil and total oil with time. A z-test was used to determine differences in the slopes of the two lines.

Finally, consumption of foods traditionally considered Mediterranean and foods traditionally considered Western were compared over time. This data was also taken from
the consumption provided by the ministry. The foods were categorized by following the precedents of former studies and the knowledge of the literature reviewed. The foods of the Mediterranean encompassed bread, rice, pastas, legumes, olive oil, fresh potatoes, fresh vegetables, fresh fruits, olives, table wines, and mineral water. The foods considered to be Western were comprised of products made from milk, deserts, cookies, pastries, chocolates, sugar, margarine, frozen potatoes, processed vegetables, transformed fruits/vegetables, prepared plates, sauce, and carbonated drinks. The remaining foods were considered to be neutral in dietary aspect. The differences between the diets were analyzed by analysis of variance without replication.

IV. Results:

Figure 1 shows the total food sold in millions of kilos by year for home, hotels and restaurants, and total. As expected, more meals are eaten in the home than in hotels and restaurants Table 1. However, significant differences in correlation coefficients show that the slope in the home line and hotel and restaurants line are different. The slope of the line of hotel and restaurants is rising at a significantly higher rate than the slop of the line for homes. This difference in the consumption rates may be seen as a sign for the possible dietary change in Spain. People have begun to eat at hotels and restaurants more frequently for their meals than at home even though the home is the most popular location at which to eat. This is a trend seen in most countries that have adopted the Western-style diet.
Table 1. Kg of food consumed by year at home and in hotels and restaurants, and population

<table>
<thead>
<tr>
<th>Year</th>
<th>Home</th>
<th>Hotels &amp; Restaurants</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1981</td>
<td></td>
<td></td>
<td>37,683,362</td>
</tr>
<tr>
<td>1982</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1983</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1984</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1985</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1986</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1987</td>
<td>26072.49</td>
<td>6837.8</td>
<td></td>
</tr>
<tr>
<td>1988</td>
<td>25237.5</td>
<td>7094.2</td>
<td></td>
</tr>
<tr>
<td>1989</td>
<td>24676.8</td>
<td>7169.5</td>
<td></td>
</tr>
<tr>
<td>1990</td>
<td>24422.6</td>
<td>7517.8</td>
<td></td>
</tr>
<tr>
<td>1991</td>
<td>25014.7</td>
<td>7877.8</td>
<td>38,872,268</td>
</tr>
<tr>
<td>1992</td>
<td>24939.29</td>
<td>7218.36</td>
<td></td>
</tr>
<tr>
<td>1993</td>
<td>26202.2</td>
<td>7555</td>
<td></td>
</tr>
<tr>
<td>1994</td>
<td>25738.98</td>
<td>7440.97</td>
<td></td>
</tr>
<tr>
<td>1995</td>
<td>24512.09</td>
<td>7480.8</td>
<td></td>
</tr>
<tr>
<td>1996</td>
<td>24523.23</td>
<td>7555.5</td>
<td></td>
</tr>
<tr>
<td>1997</td>
<td>24846.2</td>
<td>7669.21</td>
<td></td>
</tr>
<tr>
<td>1998</td>
<td>24979.76</td>
<td>7947.83</td>
<td></td>
</tr>
<tr>
<td>1999</td>
<td>25200.1</td>
<td>8135.43</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>25489.71</td>
<td>8227.8</td>
<td></td>
</tr>
<tr>
<td>2001</td>
<td>25908.78</td>
<td>8307.92</td>
<td>40,847,371</td>
</tr>
<tr>
<td>2002</td>
<td>26464.4</td>
<td>8429.7</td>
<td></td>
</tr>
<tr>
<td>2003</td>
<td>26947.77</td>
<td>8666.27</td>
<td></td>
</tr>
<tr>
<td>2004</td>
<td>27842.84</td>
<td>9028.17</td>
<td></td>
</tr>
<tr>
<td>2005</td>
<td>28100.35</td>
<td>9055.06</td>
<td></td>
</tr>
<tr>
<td>2006</td>
<td>28219.07</td>
<td>9174.42</td>
<td></td>
</tr>
</tbody>
</table>
Consumption in both categories increased over time, however this does not mean that the Spanish population has begun to eat more kilograms of food over the past few decades but rather that the population of the country has grown as seen in the census data information retrieved from the Instituto Nacional de Estadística (The National Institute of Statistics) (Spain, Instituto) (Figure 2). Figure 3 shows foods consumed in kilograms against time in year against population growth. The census information was available for
every ten years starting at 1981 and ending 2001. Using a simple regression calculation, a line was drawn to match the slope of the data points insinuating how the population grew over those twenty-five years. Figure 3 better portrays how foods consumed at home and foods consumed in hotels and restaurants increased with population growth.

Olive oil is a staple of the Mediterranean diet. By comparing olive oil consumption to total oil consumption, one can try to see whether the rate of change in total oil consumption grew at a faster rate. If it had one could assume that other types of oils such as canola, vegetable, peanut, or lard were gaining favour with the Spaniards while olive oil was slowly falling out of favor. (Lard is in a fact a fat not an oil but is

![Population Graph](image)

Figure 2. Census data from the *Instituto Nacional de Estadística* (The National Institute of Statistics)
used to for the same purposes as oil.) Table 2 shows consumption of total oil and olive oils by year. Consumption of total oil and olive oils had statistically similar slopes implying they grew at the same rate Figure 4. The growth in overall olive oil and total consumption might be readably attributed to growth in population rather than differential consumption.

![Figure 3. Kg. of foods consumed at home and hotels and restaurants over time and population growth.](image.png)
Table 2. Consumption in kg of total oil and olive oils by year.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Oil</th>
<th>OLIVE OIL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>596.97</td>
<td>369.73</td>
</tr>
<tr>
<td>2001</td>
<td>601.12</td>
<td>397.8</td>
</tr>
<tr>
<td>2002</td>
<td>596.36</td>
<td>409.98</td>
</tr>
<tr>
<td>2003</td>
<td>607.2</td>
<td>420.75</td>
</tr>
<tr>
<td>2004</td>
<td>634.33</td>
<td>442.93</td>
</tr>
<tr>
<td>2005</td>
<td>625.79</td>
<td>430.09</td>
</tr>
<tr>
<td>2006</td>
<td>604.94</td>
<td>402.6</td>
</tr>
<tr>
<td>2007</td>
<td>617.93</td>
<td>421.09</td>
</tr>
<tr>
<td>2008</td>
<td>625.09</td>
<td>436.73</td>
</tr>
</tbody>
</table>

Figure 4. Consumption of total oil and olive oils with linear regression lines fitted to the data.
Effects of Globalization on the Use of the Mediterranean Diet in Spain

Figure 5 shows kg of Mediterranean foods and Western foods consumed from 1999 to 2009 over time. Analysis of variance indicated that consumption of western and Mediterranean diets are significantly different and strongly correlated with time. The rate of consumption of the Mediterranean diet is decreasing with time (negative slope) while the consumption of Western is increasing (positive slope). This strongly suggests that one that is more typically Western is replacing the Mediterranean diet. Figure 5 shows decline in the consumption of the Mediterranean diet while the Western diet food choices are increasing with respect to time. Additionally there appears to be a sharper increase in Western foods consumed from 2007 to 2008. The amount of the Western diet consumed increased from 648.69 millions of kilograms to 714.91 millions of kilograms. This was the largest change on the graph and is the most recent.

Table 3. Lists foods consumed in kilogram/liters per year. It displays each individual food item listed in the Ministry of Agriculture, Health, and the Environment gave in their reports. The reports were originally made for each month; therefore, the data from each month had to be compiled into one single unit (the year). The foods marked in red are the foods that have been designated as foods that promote that Western dietary pattern while the foods mark in blue have been designated as foods that promote the Mediterranean dietary pattern. The foods marked in black belong to each category separately and were not used in creating this graph or did not take part in the analysis.
### Effects of Globalization on the Use of the Mediterranean Diet in Spain

#### Table 3. Foods consumed in kilogram/liters per year

| Year | Eggs     | Meat     | Fish     | Liquid Milk | Other Milk | Products made from milk | Bread | Deserts, Cookies, and Pastries | Chocolates | Coffee and Teas | Rice | Pastas | Sugar | Honey | Legumes | Total Oil | Olive Oil | Sunflower Oil | Margarine | Fresh Potatoes | Frozen Potatoes | Processed | Fresh Vegetables | Fresh Fruits | Olives | Dried Fruits | Transformed Fruits/Vegetable | Prepared Plates | Broths | Sauce | Vino V.C.P.R.D. | Table Wine | Champagne | Other wines | Beer | Other Alcohol Drinks | Cider | Total Juice | Mineral Water | Carbonated Drinks | Other Products by Weight | Other Products by Volume |
|------|----------|----------|----------|------------|------------|-------------------------|-------|-----------------------------|-----------|---------------------|------|--------|-------|-------|---------|-----------|----------|---------------|-----------|---------------|----------------|-----------|---------------------|------|----------------|--------|----------------|----------------|----------------|------------------|---------------------|-----------------------------|-----------------------------|------------------------|------------------------|----------------|----------------|-------------------|----------------|----------------|-----------------|----------------|------------------|---------------|----------------|-----------------|----------------|
V. Discussion:

The analysis of consumption of food consumed in the home versus food consumed in hotels and restaurants indicated more food was consumed at home. In the western diet, the options of receiving one’s nutrients from fast food restaurants, chain restaurants, and non-franchised restaurant are a very prevalent choice in countries with Western diets. While eating at home is still the most popular choice for dietary patterns, the choice of eating at hotels and restaurants in Western dietary pattern countries is much
closer in number to the choice of eating at home. If the trend continued, over time the two lines in figure 1 would become that of a completely Western-style diet.

Consumption of olive oil was not significantly different from the consumption or total oils. The Western diet includes a large quantities of oils and fats, but very little of it is from olive oil. The Mediterranean diet consumes mostly olive oil as seen in figure 2. The slopes in the lines of the oils increased at the same rate. Therefore, one can assume that olive oil is remaining a staple food of the Spanish Mediterranean diet.

The third analysis, which was probably the most influential in the idea of whether the diet is changing or not, supported the hypothesis. The fact that slopes were going in opposite directions showed that adherence to traditional Mediterranean foods has decreased and that adherence to traditional Western foods has increased. This is very significant, and points to the change in the Spanish Mediterranean diet that has been discussed throughout this paper. Less people are choosing to eat Mediterranean foods such as fresh fruits and vegetables in favor more Western foods such as processed meats and high-sugar foods.

The effects of the change can only be speculated on. However, due to the changes in other cultural aspects of Spain, one can readily accept that globalization has helped caused this phenomenon. As stated earlier, much of the Spanish culture is changing with the introduction of American businesses and restaurants, the alteration of women’s roles, and the invasion of American pop culture. Dietary patterns can easily be influenced by these changes, which have affected how people eat. One can see that in today’s American society.
Conclusion:

The data analyzed support the hypothesis that the traditional Mediterranean diet is changing to more of a western diet. Globalization is a key figure in this transition. Although Spain was controlled by Franco for thirty-six years, over the past half century, Spain has opened its borders to new peoples, new ideas, and new foods. The technocrats had the idea of opening Spain up to foreign trade, new governmental principles, and tourism, all of which brought about cultural change. This caused the economic boom was unlike Spain had ever seen before. The state became a modern, industrialized country influenced by the western corporate world.

Big businesses, with their Western ways of thinking poured into the country. Hotels like the Hilton and fast-food chains like McDonalds populated the big cities. Spanish businesses began to model themselves after the American ones that were doing so well. This brought about much cultural change. Women entered the work force leaving the home. Work hours changed to meet the demand of the businesses. Lunch break and siesta became lunch hour at the local restaurant. The Spanish way of life was mutating.

These changes in turn affected how the population ate. Traditional Mediterranean foods are not quickly prepared. The western diet is a time-saver. Children and young males are the population segments who least to adhere to the Mediterranean diet. Typically, young males do not cook; therefore, the western diet is more convenient for
them. Children’s palates are more sensitive so the sugar and fat of the Western diet is more appealing to them.

The diet in Spain is changing. Before long, the Mediterranean diet may be the diet of the elderly and the diet of the youth will be Western. This will bring about many health effects that are associated with the Western diet in the United States, including heart disease, obesity, diabetes, and hypertension. The Spanish people must return to their dietary roots to preserve their health.
Effects of Globalization on the Use of the Mediterranean Diet in Spain

Works Cited


Analysis ToolPak Microsoft Excel 2013


Collantes, Fernando. "The Decline of Agrarian Societies in the European
Effects of Globalization on the Use of the Mediterranean Diet in Spain


Effects of Globalization on the Use of the Mediterranean Diet in Spain


Schroder, Helmut, Jaume Marrugat, Juan Vila, Maria I. Covas, and Roberto Elosua.


Effects of Globalization on the Use of the Mediterranean Diet in Spain


Effects of Globalization on the Use of the Mediterranean Diet in Spain


