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# The Ingredients of Change: A Political Ecology Approach to Diabetes in the Somali Community of Minnesota

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# The Ingredients of Change

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A Political Ecology Approach to Diabetes in the  
Somali Community of Minnesota

**Mina Tehrani**

**12/13/2010**

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## **Introduction**

In the early 1990's, due to political circumstances at home, Somali immigrants and refugees began arriving in the state of Minnesota in large numbers. Over the past two decades, Somali immigrants have come to comprise one of the largest ethnic groups in the Twin Cities. The Somali population of the Minneapolis-Saint Paul urbanized area, according to the 2009 American Community Survey, is between 20,000 and 30,000 people, with around 3,000 additional Somalis living elsewhere in the state. Currently, the Somali population in the Twin Cities is the largest outside of Eastern Africa. Somali communities became concentrated in several areas in the state, and the unique health needs of these communities soon became apparent to the health systems in those areas. Tuberculosis, prenatal problems such as hyperemesis gravidarum (severe vomiting during pregnancy), post-traumatic stress disorder, depression, and diabetes are some of the health problems that are prevalent in these communities (Mohamed, 2008; Spring & Deinard, 1998; Schuchman & McDonald, 2004; Owens et al., 2002).

### Type II Diabetes in Somali Immigrants

In particular, physicians, researchers, and others have pointed to the increasing prevalence of type II diabetes in the Somali immigrant population. Type II diabetes, the most common type of diabetes, usually develops in adulthood and usually affects those who are overweight, have low physical activity, or are genetically predisposed to the disease.

Many studies have shown positive correlations between “acculturation” (measured by language competency or time of residence in the United States) and obesity, poor nutrition, and cardiovascular diseases among Latino immigrants in the United States (Khan et al., 1997; Aldrich

& Virayam, 2000; Hazuda et al., 1991). Obesity and poor nutrition, in particular, are risk factors for type II diabetes, and accordingly, the rate of type II diabetes among Latino immigrants in the US are higher than that of people born in the US (Borrell et al., 2007).

Researchers have noted that, due to the effects of culture, barriers to healthcare access, and/or environment, health outcomes of immigrants tend to eventually match or fall below those of the native population with length of stay (McDonald & Kennedy, 2004). This hypothesis can provide insight into the incidence of diabetes among Somali immigrants in the United States—an area in which, as yet, data is unavailable. According to the World Health Organization, in 2000, diabetes rates in the three countries surrounding Somalia were as much as five times lower than those in the United States and Canada (figure 1). Although data for the country is unavailable, it is reasonable to assume that the diabetes prevalence in Somalia is similar to that of its neighboring countries, if not lower. It is unlikely that residents of Somalia, who live in a context of political instability and food scarcity, would have higher rates of the disease than other countries in the region (Renzaho, 2004). Figure 1 shows that, in migrating from Somalia to the United States, Somali immigrants are moving from an environment that produces relatively few cases of diabetes to one that produces relatively many. For the purposes of this paper, therefore, I assume that the prevalence of diabetes among Somali migrants tends to increase from the pre-migration levels as a function of length of stay in the United States.

Although quantitative data is unavailable, qualitative evidence and testimonies of healthcare professionals also support the above conclusion. In focus groups in Seattle, for example, first-generation Somali immigrants stated that they had never heard of diabetes in Somalia except among

the elderly (Owens et al., 2002). In addition, physicians such as Dr. Mehmood Khan, a consultant in the Mayo Clinic’s Division of Endocrinology, have claimed that “a growing number of Somali immigrants are developing [Type 2 diabetes] within five years, and some as quickly as six months, after their arrival in this country” (Associated Press, 2002). Pamela Gaard, a dietician at Cedar Riverside People’s Center, also notes that the prevalence of diabetes in the Somali population of Minneapolis appears to be high (Gaard, 2008).

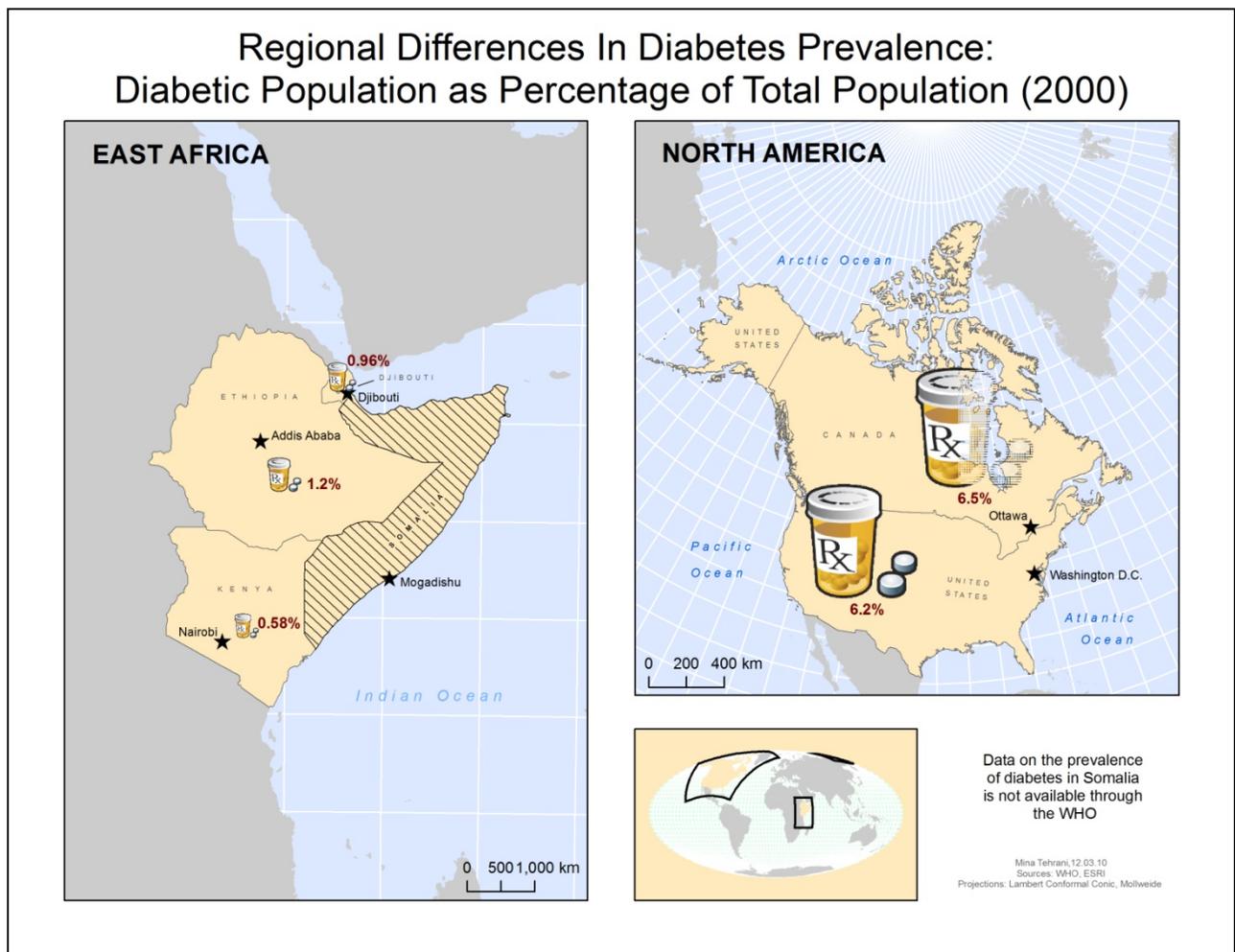


Figure 1: Regional Differences in Diabetes Prevalence: Diabetic Population as Percentage of Total Population (2000). On average, the prevalence of diabetes in East Africa (Kenya, Ethiopia, Djibouti) is around one-sixth as high as that in North America (United States, Canada), according to the WHO.

Why are Somali migrants to the US at an elevated risk of developing diabetes?

In this paper, I will answer this question by dividing it into several parts. First, I will discuss the phenomenon of migration and the ways in which it can impact health. I will then move on to the adaptation approach based in the cultural ecology framework. I will use this approach to examine the ways in which Somali migrant lives and livelihoods have changed, and the ways these changes may have contributed to a higher risk for diabetes. I will argue, however, that the adaptation approach has shortcomings that can be addressed by the framework of political ecology. After introducing the framework, I will show how it can contribute to a study of health, and to an understanding of diabetes in the Somali migrant community in particular. I will apply the framework in four ways, analyzing political economy, scale, spatial/historical interconnections, and discourse in the Somali health experience. Finally, I will conclude and provide several recommendations for healthcare providers and policy makers.

## **Methods**

The purpose of this paper is to explore the causes for change in the health outcomes within the Somali immigrant population in Minnesota, and to look for ways to improve Minnesota's health infrastructure to address Somali immigrant needs.

As an undergraduate researcher studying both pre-medicine and geography, my interest in this topic originated in a summer internship experience at a clinic in Minneapolis. Working with the clinic's obstetric staff, female Somali patients, and other healthcare providers in the area, I conducted a project to understand the prenatal care needs of Somali women, and further, to suggest to the clinic models for improved prenatal care. This experience, as well as earlier experiences teaching English as a Second Language (ESL) classes in the Somali community in Saint Paul, gave

me an interest in the migration experiences of the community, a rudimentary familiarity with common health needs and issues, and an awareness of the obstacles to health that many members of this community face.

In the current paper, I hope to be able to offer insights into issues of Somali immigrant health by viewing them in wider spatial, temporal, scalar, political, and discursive contexts. To this end, I explored the literature on the political ecology of health, drawing from the work of Kalipeni & Oppong and King, among others. For a view into the many issues and areas of scholarship that exist in the Somali diaspora, I relied heavily on *Bildhaan: An International Journal of Somali Studies*, an annual publication of the Institute for Global Citizenship at my home institution (Macalester College). I also include information from the literature on migrant health, including studies about Latino and other immigrant groups. Finally, although I do not include any data from the aforementioned summer project, this paper includes information from websites, organizations, and individuals that I became acquainted with as a result of that experience.

Throughout the course of my research, I was hindered by a lack of data on diabetes prevalence in the Somali population both in Somalia and in Minnesota. In Somalia, data is unavailable, mainly, because of the political instability which leaves relevant domestic and international institutions without the means to gather information. In the United States, the shortage of data is in part due to the lack of specificity in ethnic categories used by researchers. Because of their newness to the country as well as, arguably, the legacy of racism in the United States, Somalis are usually categorized as African, African American, or simply Black (Schuchman & McDonald, 2004). Thus, it is difficult to identify information that applies to Somali immigrants specifically.

For the purposes of the three maps that I designed for this paper, I was obligated to use proxy measures such as Somali language speakers and East African foreign-born population.

## **Migration**

According to a 2010 World Health Organization report, there are approximately 214 million migrants around the world; if migrants that are internal, undocumented, or have irregular situations were considered, this number could be as high as 1 billion (WHO, 2010).

The reasons that people migrate are various. Some migration is the result of choice: a decision to seek employment opportunities or to pursue further education, or because of a preference for a different environment or culture. In many cases, migration is a result of choice, but does not take place under circumstances that the migrant can control as a result of political situations, financial constraints, oppression, etc. Finally, some migrants leave their homes against their will—by military evacuation, deportation, etc. Migration by force or due to other undesirable circumstances such as economic crisis, food insecurity, or political oppression, unfortunately, produces most of the world's mobile population (WHO, 2010).

Migration is by no means a new phenomenon. However, contemporary migration is accompanied by new challenges: the increased complexity of migration flows, the heterogeneity of migrants' backgrounds and needs, deep inequalities and dynamics on the global scale, and so on (WHO, 2010). In addition to an increase in international migration, urbanization and other trends of movement within countries have also increased. Furthermore, migration on the international scale is often accompanied by migration internally. Residential mobility of immigrants and refugees in the

adopted country can be motivated by a shortage of suitable housing, discrimination, exclusion in the area of original resettlement, among other problems (Warfa et al., 2008).

In sight of these complexities, an understanding of the effects of migration on the individual level must look across scales spatially and temporally, asking questions such as: why did this person migrate? What sort of environment did they come from and in what sort of environment have they resettled? How did they move from their home country to their destination?

### **The Somali Diaspora**

There are nearly 15 million displaced Somalis worldwide. With the collapse of government and beginning of civil war in 1990, the global Somali diaspora began to grow rapidly. US-sanctioned bombing of Mogadishu and other foreign interference. As is the case of migrants and refugees around the world, abuses of Somali migrants have occurred: with no government to advocate for them, Somalis have faced race and religious discrimination by surrounding countries (such as Kenya) as well as first world countries (on the basis of Islamic terrorism) (Rutledge et al., 2010).

Emigration out of Somalia is typically expensive and dangerous. Migrants utilize three main routes (Kapteijns, 2001):

1. South to Somali town of Kismaayo, then the Dadaab refugee camp in Kenya. Dadaab is the largest refugee camp in the world, and one that is notorious for food shortages, long-term stays, and routine violations of the Geneva Convention.
2. North to Somali town of Boosaaso, then crossing Gulf of Eden to Yemeni refugee camps. In Yemen, refugees face starvation, racism, and lack of employment opportunities.

3. Crossing the Western Sahara desert through Ethiopia, Sudan, Libya, then crossing the Mediterranean by raft, and arriving in Malta/ Italy. Racism in Europe, deportation, and similar obstacles continue to follow emigrants after arrival.

After going through an experience such as one the above, some Somali refugees end up in the state of Minnesota. It is important to recognize that a very small proportion of those who flee Somalia ultimately arrive in the United States, and that the demographics of these arrivals vary and have changed over time. Earlier waves of Somali migrants have consisted of more educated and urban classes that are ethnically non-Bantu, while later waves have included Bantu Somalis who had led pastoral or agricultural livelihoods.

### **Migrant Health**

Depending on one's perspective, migration can be conceptualized either as a movement of people across space, or—from the migrant's perspective-- a change in surroundings. According to Baer (1996), "health is affected by an environment that is produced by a dialectical interaction between natural and sociocultural forces." A change in this environment, therefore, would be expected to bring about a change in health as well.

On the other hand, a 2006 report from the WHO states that "migration is not inherently detrimental to health." These contradictory statements reflect the reality that, just as experiences of migration are diverse—across immigrant groups as well as across different waves of arrivals within one group-- migration affects health in diverse ways.

The "healthy migrant" thesis, which is reflected by the WHO report, posits that migrants are most often healthy, young, single adults who have the means and ambition to leave their homes in pursuit of opportunity. These migrants tend to be healthier than the native population of their

adopted country upon resettlement. With acculturation (or adaptation) however, their health outcomes gradually come to match those of the native population.

Involuntary migration, or voluntary migration by marginalized people, however, is characterized by relative lack of agency on the part of the migrants, and does not necessarily give migrants such an initial advantage over the native population upon arrival. Furthermore, migrants in this category are often exposed to more adverse health circumstances than most of the native residents of the adopted country, making them more vulnerable to poor health. The “malign migration” thesis, put forth by Warfa et al. (2008) and others, suggests that these migrants and refugees usually migrate because of dangers or other risks at home, endure long and dangerous journeys as refugees, and are often resettled in dangerous, low-income neighborhoods in the first world. Figure 2 shows a comparison of the health effects of the two broad categories of migration that are portrayed by the healthy migrant and malign migration theses, respectively.

Variable	Healthy Migrant Thesis	Malign Migration Thesis
Reason for migration	To seek opportunity and a better life	Conflict, human rights violations, natural disaster
Migration experience	Not detrimental to health	Often long stays in refugee camps, dangerous and illegal means of travel, many risks to health
Adaptation experience	Health outcomes come to match those of the native population	Health outcomes continue to be compromised after resettlement by poverty, discrimination, language and cultural differences, separation from family and socio-cultural norms, administrative hurdles, legal status, etc.

Figure 2: The migrant health of effects proposed by two thesis of migration.

These shape health in two ways, both of which figure into the process of adaptation after resettlement. One, *vulnerability* increases with exposure to the dangerous events that might spur

migration, risks of the journey itself, and adverse circumstances in the adopted country. Two, *access to care* during the migration process and after resettlement is hindered by cultural and language differences, discrimination, and administrative difficulties. In addition, migrants are often in the dangerous situation of not belonging fully to any nation: the responsibilities of national governments of the countries in which migrants originate and resettle, as well as countries along the migration route, are often unclear (Rutledge, 2010).

The categorization of a migrant group as voluntary or involuntary, or as immigrants, settlers, refugees, asylum seekers, etc. is important in that it can inform the services and national policies that shape the group's experience in the adopted country. In addition, incorrect categorizations of a migrant group can create negative popular narratives which can lead to negative experiences of the group in the adopted country.

The Somali population in the United States, as well as in Europe, Australia, and the Middle East, is overwhelmingly comprised of *refugees*, people that the Homeland Security Office of Immigration would say are “unable or unwilling to return to his/her country of origin because of persecution or a well founded fear of persecution...” (Mohamed, 2008). The importance of popular narratives and the Somali diaspora's historical context will be further discussed later.

## **Adaptation**

Cultural ecology, an approach to human-environmental interactions which stresses the effects of local culture, became prominent in the 1960's and '70's as part of a movement to “decolonize the mind” by rationalizing and defending third world human-environment interactions. The field has since been criticized, by political ecologists and others, for a narrowness of scope and a lack of attention to complexities such as spatial interconnections, political economic effects, and

so on. The disadvantages of the cultural ecology approach are relevant to the present paper, and will be discussed later.

A main concern of the cultural ecologic perspective is the question: How do cultures and individuals within them adapt to environmental change? Cultural ecologists define “adaptation” in varying ways (Butzer, 1990; Denevan, 1983; Watts, 1983 and others). In this paper, I view adaptation as “the process of change in response to a change in the physical environment or internal stimuli” (Denevan, 1983). This conception of adaptation is similar to *acculturation*--which is more typically used in the context of migration--but has an additional focus on the impact of the environment, which is useful here. In the present case, the adaptation framework allows for an analysis of the changes in diet, physical activity, and access to good health and quality healthcare that accompany the Somali migration process.

As noted in the introduction, Dr. Khan, a Mayo clinic endocrinologist, attributes the rising prevalence of diabetes to a lack of exercise and a dramatic increase in fat and overall caloric intake in Somali migrants (Associated Press, 2002). Changes in diet and physical activity can be dramatic in a change from a Somali livelihood—which may be pastoral, agricultural, or urban—to an urban Minnesotan one. In addition to these basic changes in livelihood, a lack of familiarity with the new environment can hinder Somali access to both means of healthy living and adequate access to healthcare. Misinformation and prejudice among policy makers and service providers can create similar barriers.

### Livelihood Change

The term 'livelihood' describes the 'capabilities, assets (stores, resources, claims and access) and activities required for a means of living' (Chambers & Conway, 1992). The livelihood of a cultural group is an area of interest to cultural ecologists, as it is integral to patterns of diet, physical activity, and other aspects of daily life. Livelihood strategies tend to be environmentally specific; as such, the environmental changes that result from migration would be expected to bring about changes in livelihood. Specifically, changes in diet and physical activity are often observed, and can have significant impacts on health. Somalis traditionally use a pastoral livelihood strategy, and sources are available that provide information on the typical Somali pastoral diet and daily activities. The usefulness of such information to this paper, however, is limited for two reasons. First, not all Somali migrants are former pastoralists; in fact, many of those who migrated in the earlier waves belonged to the educated elite, and originated in cities. Many others in the country use agriculture as a livelihood strategy, or as a way to supplement a pastoralist livelihood. Secondly, the livelihoods in Somalia have changed in unknown ways as a result of the recent political instability. Data on the ways of life of Somali people has never been plentiful, and with current political events in the country, it has become even less so. The analysis of livelihood change that follows, therefore, is theoretical and is not applicable in every case.

### Diet

According to Ethnomed, an online resource for healthcare providers that work with diverse populations, common foods in the Somali diet include camel meat and milk, *anjera* bread, sweet tea, bananas, and pasta, with frying being the most common method of cooking. As a result of historical contact, the main cultural influences on the diet are Italian and Indian due to historical

contact; foods such as pasta and Indian curries, for example, are common. In addition, being almost entirely Sunni Muslim, Somalis avoid foods that are *haram*, such as pork and alcohol (Haq, 2003).

Dieticians working in the Somali community in Minnesota have noted that the Somali diet has taken on several changes, with negative impacts on health. According to the Ethnomed report and an article by Patil et al. (2008), some of the most significant changes are:

- Rise of fast food and junk food.
- Replacement of traditional ingredients with less nutritious ones.
- Regular use of nutritional supplements such as Pediasure
- Use of new snack foods such as cheese and fruit juice.
- Decrease in proportion of daily calories from vegetables
- Increase in proportion of daily calories from sugar (see figure)

Dieticians have also noticed common diet-related health problems, including constipation, diabetes, anemia, poor dental health, obesity, among others (Haq, 2003).

## Regional Differences in Per Capita Sugar Consumption (2007)

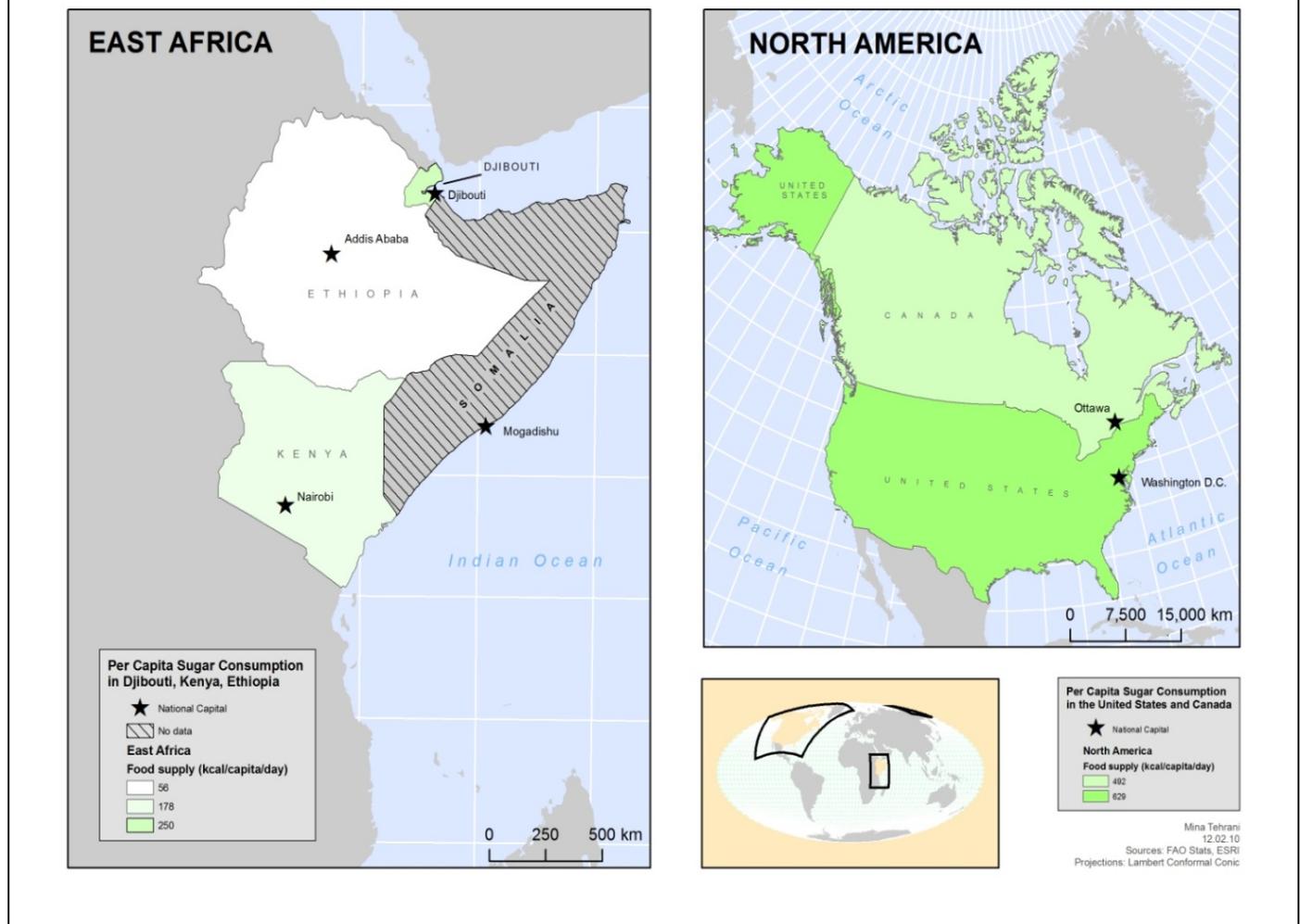


Figure 3: Regional Differences in Per Capita Sugar Consumption (2007). On average, sugar consumption in East Africa is around one-third that in North America, according to the FAO.

### Physical Activity

Although variable by gender and age, the Somali pastoralist lifestyle involves a relatively high level of physical activity. Herding of camels, sheep and goats, preparation of food, maintenance and manufacture of the collapsible house and others materials, etc. (Kapteijns, 1995).

The urban lifestyle, by contrast, is characterized by sedentary activities and is shaped by infrastructure—apartment buildings, motorized transport, supermarkets containing prepared foods

and other items in one place-- that is not conducive to physical activity. In combination with changes in diet, low physical activity has been shown to contribute to heart disease, obesity, diabetes, high blood pressure, and so on (CDC, 1999).

#### Holistic Health: Other Effects

In addition to the concrete effects of a change in livelihood, deep differences between the Somali and the US biomedical understandings of physical health must be taken into account. Somali culture views health in a way that Western medicine might term “holistic,” that is, as an interplay between physical, mental, and spiritual factors. Besides changes in diet and physical activity, Somali focus group participants in a study by Pavlish et al. (2010) cited the effects of changes in spiritual practice, distance from home, social isolation, and other experiences.

#### Shortcomings of Adaptation Approach

An analysis of the prevalence of diabetes among Somali immigrants using the adaptation approach is useful in identifying proximate causes: changes in diet, reduction in physical activity, and other general lifestyle changes are identified as contributors to diabetes risk. As critics of the cultural ecology framework have noted, however, a deeper examination is necessary to identifying true causes and ultimately, generating ideas for improvement in healthcare provision and policy. In the remainder of this paper, I will use the political ecology approach to explore the underlying causes of the trends that I have outlined in current section.

## **The Political Ecology of Health**

### The Political Ecology Framework.

Political ecology is a perspective on development that became popular in the 1980's, partly as a response to the relatively narrow, local approach of cultural ecology. The framework, which was developed in large part by Blaikie and Brookfield (1987), is characterized by a consideration of local issues at various scales, in their connections with political economy, and with an eye to ultimate rather than proximate causes (Robbins, 2004). Although originally applied to third world environmental issues, in more recent years the political ecology approach has been used to understand health, conflict, and other related issues (Bryant & Bailey, 1997; Oppong & Kalipeni, 2005; Le Billion, 2001).

### Contributions of Political Ecology of Health.

Among the earliest proponents of a political ecology approach to health was Mayer (1996), who argued that an approach that demonstrated "how large-scale social, economic and political influences help to shape the structures and events of local areas" had advantages over existing approaches to health such as disease ecology and biocultural anthropology. Later authors have argued that political ecology can inform an understanding of health issues in additional ways. A multiscale approach to health allows for an analysis of disease and health phenomena as embedded in social networks, and provides an alternative to the biomedical focus on individual health in isolation, or disease ecology's focus on local causation. In addition, because of its emphasis on human-environment interactions and the structural conditions that shape them, political ecology lends itself to the study of disease vulnerability, disease transmission, and the impacts of disease on social and environmental systems (King, 2010).

Recently, Oppong and Kalipeni (2005) have made important contributions to the political ecology of health in studies on the impacts of landmines in Africa, and other studies. According to these authors, the political ecology of a health issue can be divided into three approaches. First, it provides the tools to look at a problem's historical context, understanding the temporal root causes, which sometimes are continuing to play a role in the issue. Second, political ecology allows for the examination of an issue by scale: how is it manifested in an individual's health, in a community, on the national scale, and globally? Finally, the framework recognizes the importance of both structural causation and individual agency. Political events that produce refugees, for example, are important to analyze alongside the choices that refugees make in where to travel to, by the adaptations that they pursue if they are resettled, and so on. In the table below, I take a similar approach to the potential contributions of political to the study of health, but use slightly different categories.

	<b>Biomedicine</b>	<b>Medical Geography-Disease Ecology</b>	<b>Political Ecology</b>
Political Economy	N/A	Social theories such as development theory are biased and unscientific	<b>Political, economic, social inequalities can be detrimental to a marginalized individual's health</b>
Scale	Health is experienced by an individual as a result of things that happens within their tiny cells and molecules	Individual health should be contextualized within the health of the community and the local environment	<b>Health is “embedded” within small and large scale environmental, political, social systems (King, 2010)</b>
Inter-connections	Infectious diseases may spread between individuals	Disease may be acquired from the environment and spread between individuals	<b>Phenomena at other TIMES in history and in other PLACES may have an impact on a health issue of interest</b>
Discourses	N/A	N/A	<b>Hegemonic narratives may be used to perpetuate power relationships that are detrimental to the health of marginalized people</b>

Figure 4: The approaches of three frameworks to four considerations in health.

In the sections that follow, I will apply the political ecology lens to each of the four considerations outlined above.

## Applying Political Ecology to Somali Immigrant Health

Political Ecology	...of Health	...of immigrant health	...of diabetes among Somali Immigrants in Minnesota
Political Economy	Political, economic, social inequalities can be detrimental to a marginalized individual's health	Immigrants may be more vulnerable to poor health, and less access to health care	Conflict in Somalia, international migration process, policies and services in the US
Scale	Health is “embedded” within small and large scale environmental, political, social systems (King, 2010)	<b>Individual:</b> health outcome <b>Community:</b> adaptation <b>Local:</b> Healthcare access <b>National:</b> policies, conflicts <b>Global:</b> Immigration experience	A Somali immigrant with diabetes – community adapting to new livelihood—local and national healthcare policies in adopted country—national and global processes that led to immigration
Inter-connections	Phenomena at other TIMES in history and in other PLACES may have an impact on a health issue of interest	Causes of immigration to effects; places involved in immigration route	Somalia , refugee camps and other immigration points, the US
Discourse	Hegemonic narratives may be used to perpetuate power relationships that are detrimental to the health of marginalized people	Incorrect popular narratives may lead to discrimination and exclusion	Islamic terrorist; Black; helpless victim

Figure 5: Applying political ecology to health, immigrant health, and the specific issue of diabetes among Somali immigrants.

### Political Economy

Kalipeni and Oppong (1998), in examining the health issues that affect refugees and migrants in Africa, recognize that political ecologic forces create the conditions for disease in two ways: one, by creating refugees, who by nature are vulnerable to disease; and two, by disrupting health services that can prevent the spread of disease. In addition, the authors stress the importance of the geography of a refugee-producing crisis, as well as the significance of refugee camps as

reservoirs of disease. As these authors show, the tools of political ecology can help to identify structural causes of health issues, look at the geography of disease spread, and the ways in which migration can cause changes in human-environment interactions and social institutions.

The structural forces that contribute to negative health outcomes can be classified as *vulnerability producing* or *healthcare access inhibiting*, in accordance with categories that were introduced earlier in the paper. In the case of Somali migrants, structural forces influence diabetes risk by creating vulnerability and limiting access to care in several ways. According to Patil et al. (2008), Renzaho (2004) and others, immigrants often develop unhealthy diets as a result of exposure to media and advertising. Media messages are often directed at younger audiences, and, because the children usually become culturally proficient sooner, migrant parents often depend on children for information about the new culture. As a result, Somali families have in many cases adopted fast food and other unhealthy eating patterns. In addition, the influence of infrastructure is important. In an urban setting, people are dependent upon supermarkets for food, as well as the transportation that is connected to them. Patil et al (2009) have shown that accessibility to supermarkets for migrants with limited access to a car can be a limiting factor to the diet. Some families depend on small local stores, which typically do not have a wide selection of fresh produce or other healthful foods.

As figure 6 shows, the availability of healthcare services that are offered in Somali are geographically limited. Dakota county, one of the three counties in the state that, according to the 2009 American Community Survey of the Census Bureau, is home to Somali migrants, does not appear to offer such services. In addition to geographic distance, limited access to cars is also an

inhibiting factor. Without regular access to care, early detection and treatment of diabetes can be compromised.

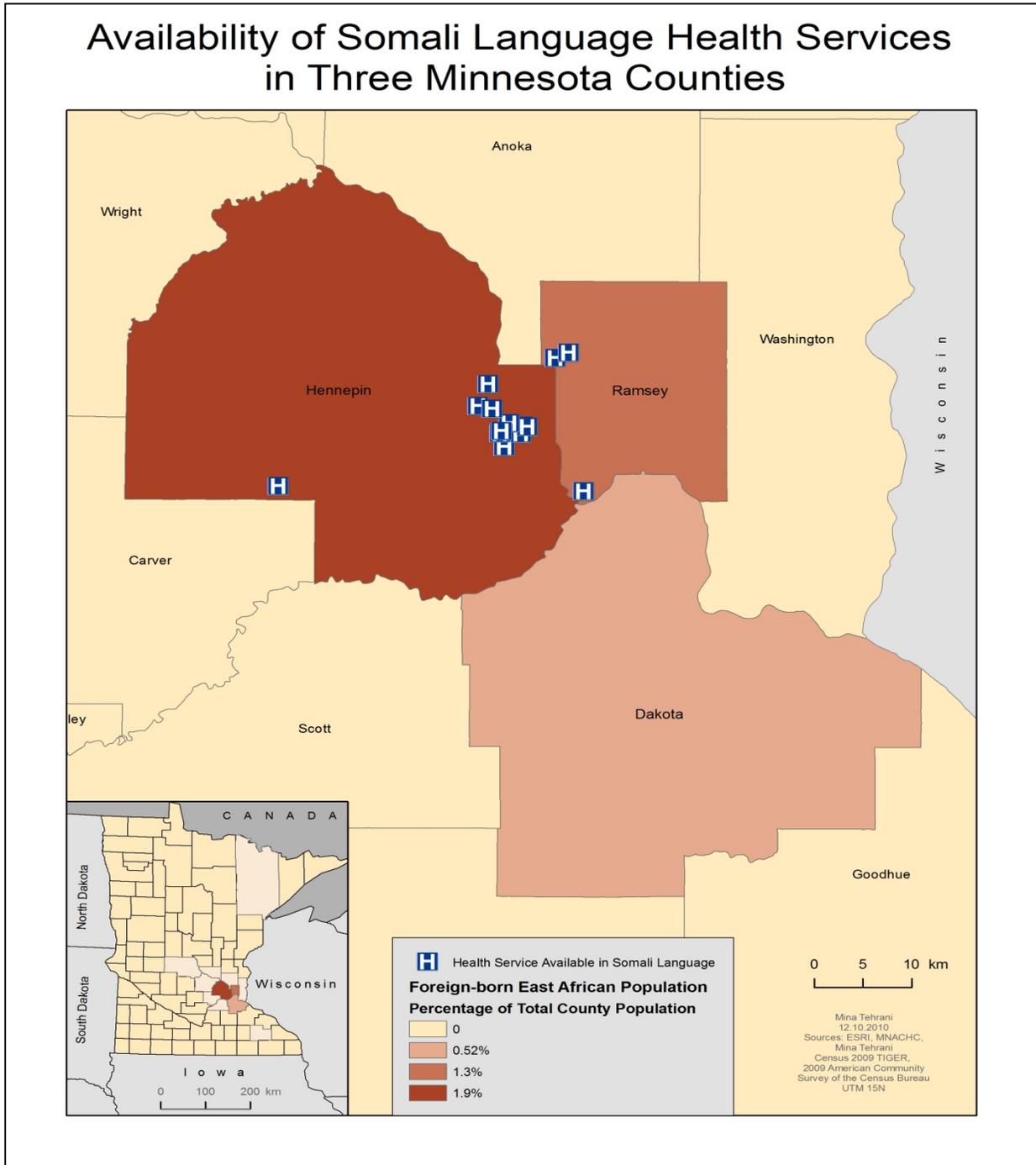


Figure 6: Availability of Somali Language Health Services in Three Minnesota Counties. The geographic accessibility of Somali language health services is high in Hennepin and Ramsey counties, which have the highest populations of East African foreign-born immigrants in the state; Dakota county appears to be underserved.

## Scale

Migration, by definition, occasions change. The change is manifested at various levels: globally, immigration of groups can contribute to such trends as “brain drain,” changes in demographics, changes in economic systems, and so on. The effects of migration can be felt by the smaller scales of nations and communities: the communities in which immigrants settle can be exposed to new ideas, practices, and even diseases that the newcomers introduce, and cultural and social structures may change as a result. Finally, immigration has impacts on the individual level, including upon an individual’s physical state of health.

The health of individual Somali immigrants in the Twin Cities is the result of multiscale interactions. Of course, these (first-generation) individuals, as transnational migrants, are in Minnesota as a result of a phenomenon on the global scale. The transnational move, however, is not a sufficient basis for the analysis of health outcomes. Upon arrival in Minnesota, Somali migrants continue to experience health-shaping dynamics on various scales. The adaptation experience of a Somali individual resettled in the Cedar Riverside neighborhood of Minneapolis, for example, is shaped by interactions at at least four scales. She/he engages in interactions with the United States government in order to gain legal status or pursue citizenship. He/she is heavily affected by Minnesota state policies—in fact, such policies may be the reason that she/he ended up in Minnesota at all. The individual is dependent on public services and institutions of the city of Minneapolis to meet their basic needs of healthcare, communication, transportation, and so on (these needs, of course, vary by individual and by length of stay). Finally, an often-neglected intra-community scale is an important contributor to individual adaptation. From an outside perspective, the Somali community appears to be homogeneous and harmonious. According to several authors and

informal accounts, however, the community is comprised of diverse sectors of Somali society, including sectors that have had historically strained relationships. For example, Somali refugees that arrived in the earlier waves were ethnically non-Bantu, and in many cases, were from the educated, urban classes. In 2003, Bantu refugees began to arrive in Minnesota. The Bantu have been historically oppressed, even enslaved by the non-Bantu in Somalia, and often feel distrustful towards non-Bantu Somalis. In their new communities, interactions with the non-Bantu are unavoidable: as earlier, more educated arrivals, the non-Bantu play critical roles in public service programs, acting as interpreters and cultural liaisons. In some cases, public service provision is hindered as a result of this type of internal tension within the Somali community (Patil, 2009).

### Interconnections

A consideration of the interconnections between different places and times is a hallmark of the political ecology approach. The historical events that have created the Somali diaspora, as well as the connections that Somali migrants have built between the contexts of Somalia and the United States, influence Somali migrant health outcomes in at least three ways: by creating distrust between patients and providers; by influencing dietary acculturation; and by causing differing expectations of healthcare.

First, due to interventions by Western powers in the past, some Somali migrants to Minnesota have mixed feelings about their new association with the United States (Roble & Routledge, 2008). This ambivalence can influence the relations of Somali patients with healthcare providers, sometimes presenting obstacles to communication and quality care (Pavlish et al., 2010). In the photographic book *The Somali Diaspora: A Journey Away*, authors Roble and Routledge (2008) note that non-Somali Minnesotans often wonder why some Somali immigrants do not show

interest in becoming “acculturated” to their new society, why they sometimes even reject aspects of a society that appears to have provided for them so generously. Notoriously, Somali taxi drivers have in the past refused to transport passengers that are carrying alcoholic beverages, much to the surprise and anger of many Minnesotans (Roble & Routledge, 2008). An understanding of the historical context of Somali immigration can shed light on this behavior and the causes of such conflicts as the one described. Colonization by European powers, and more recently, military attacks by the United States, have understandably given some Somalis mixed feelings about their new relationship with the Western world. An underlying ambivalence and distrust is noted by healthcare providers in the state, and can present challenges in patient-clinician communication and subtract from the quality of services (Pavlish et al., 2010).

Secondly, many Somali refugees have experienced extreme food insecurity as a result of the Somali famine of the early 1990’s, food shortages at refugee camps, and other adverse situations during migration. Some authors suggest that this past experience with food scarcity has given Somali migrants a positive view of excess body weight, even a preference for being overweight (Renzaho, 2004).

Finally, differing views of health and healthcare as a result of cultural differences can present an obstacle in healthcare, as discussed earlier. Cesarean sections are one oft-cited source of discord between Somali patients and Western clinicians. Somali women are notoriously reluctant to undergo the cesarean section procedure, believing that a natural birth is preferred by God, and that US physicians conduct the procedure out of impatience, in order to gain experience or money, or for other hidden reasons (Pavlish et al., 2010).

## Discourse

Traditionally, immigrant health has been largely concerned with the practical task of filtering out immigrants that are “sick” while allowing in those that are “healthy” (King, 2010). Accordingly, immigrant health screenings are strict, and even today, immigrants and refugees are often turned away because of their health status (Ali, 2009). Immigrant discourses in the United States have changed over time according to the internal political and social climate. Unfortunately, at present, the discourses surrounding Islamic terrorism, people with dark skin, and refugees work to the detriment of the incorporation of Somali migrants into US society. Somali migrants are regularly featured in media stories about terrorist plots, ties to fundamentalist groups, and even local gun violence. The association of Somalis with violence and danger can create narratives among the US-born population that lead to distrust, exclusion from communities, and discrimination. The mental health effects of such experiences in Somali migrants have been noted (Warfa et al., 2008). More broadly, incorporation and belonging in the new society is critical to migrants’ development of culture literacy: familiarity with systems of health, possibilities for exercise, food options, healthcare access, and more.

## **Conclusions**

Immigration is a process of complex changes that can have dramatic affects on individual health. This paper explores the factors that contribute to a heightened risk for diabetes within Minnesota’s Somali immigrant communities by identifying the significant changes that have been created by the migrant experience, and then analyzing the effects of such changes. Although useful in learning about the health outcomes of the Somali migrant community in isolation, the adaptation approach does not illuminate the causation of these outcomes sufficiently to generate ideas for

improvement. Political ecology offers an analysis that can enable a deeper understanding in the Somali context.

#### Policy Recommendations.

Of course, domestic public health is an important consideration in immigration policy; however, subsequent work on immigrant health has shown that research and policy making must address wider concerns in order to be effective. Although not all political ecology is known for it, because of its consideration of small scale phenomena in many contexts, the framework is ideal for the development of practical solutions, policy recommendations, and ideas for improving the situation of in this case Somali immigrants, which are my objective here. Three recommendations are pertinent to the current context:

- Migrant-inclusive health care vs. parallel system outside of the mainstream (WHO)
- National level: plans and resource allocation; local level: service delivery across sectors, integration into community
- Non-governmental: inclusion of immigrants

The relatively sudden influx of Somali immigrants in recent years has created new challenges in healthcare, but also new opportunities. With a multiscale, historically informed, and contextual approach, healthcare providers and policy makers can improve services to Somali newcomers, as well as members of other immigrant groups. Indeed, access to optimal health, according to the World Health Organization, is a fundamental human right, and it falls within the duties and the abilities of host governments to make the best efforts possible to ensure the wellbeing of all who reside within their borders.

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