

A Work Project, presented as part of the requirements for the Award of a Master's degree in
Economics from the Nova School of Business and Economics.

ASSIMILATION OF CAPE VERDEAN IMMIGRANTS IN TERMS OF ACCESS TO HEALTHCARE

ANA BEATRIZ BRANDÃO PEREIRA GOMES

Work project carried out under the supervision of:

Cátia Batista

16/12/2022

ABSTRACT

Full access to healthcare is an important driver of immigrant integration. Existing literature shows that there are multiple de facto barriers for migrants to access healthcare even when they are legally entitled to them. This paper examines how time since arrival impacts immigrants' access to healthcare, a novel research question adding to the existing literature on migrant assimilation. We use survey data collected from about 800 Cape Verdean immigrants in the Lisbon Metropolitan Area. The findings show that immigrants do assimilate in terms of access to healthcare. These results are robust when controlling for sample selection.

Keywords: Migration; Integration; Assimilation; Healthcare; Cape-Verde; Portugal

This work used infrastructure and resources funded by Fundação para a Ciência e a Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab, Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

1. INTRODUCTION

International migration has significant economic and political implications worldwide. There is a vast body of economics literature on the advantages of immigrant integration in host countries, particularly in terms of the labor market. More specifically, well-crafted integration programs can increase immigrants' economic and social contribution and reduce demographic imbalances in the host society, acting as a key factor for economic development and growth of the destination countries (Docquier et al., 2014). The implications of immigrant integration go beyond economic impacts since this is a crucial determinant of attitudes towards immigration for natives in Europe (Angelini et al. 2015).

Economists have mostly analyzed the economic assimilation of immigrants in the labor market¹. The theory behind it states that immigrants develop destination human capital and, as a result, earnings are expected to improve with the duration in the host country but at a decreasing rate (this is known as the Immigrant Assimilation Hypothesis (IAH), first proposed by Chiswick 1978). There are, however, other aspects of immigrant assimilation that should be measured in order to fully understand how migrants integrate in the host community. Studying the mechanisms behind the integration process constitutes not only crucial guidance for policy makers but also to better ground attitudes towards migrants in the destination country. In this context, access to healthcare is an important dimension of immigrant integration as it constitutes an investment in the human capital of migrants, while also directly enhancing their standing in the host nation. Restricting healthcare accessibility has been found to decrease the usage of health services, their self-reported health status, while also increasing the mortality rates of undocumented migrants (Bronchetti 2014; Mestres et al.2021; Jiménez et al 2020). More generally, health is one of the drivers of economic development. In fact, healthier individuals besides having higher returns to labor input, are also more willing to invest in education (even

¹ See, among other, Chiswick (1978); Friedberg (1992); Dustmann (1994); Borjas (1995); LaLonde (1997); Green (1999); Lubotsky (2007).

as adults), which acts as an engine of economic growth, as benefits are available for longer (Kalemli et al 2000). Overall, these findings imply that the lack of healthcare accessibility can have serious detrimental effects on the health of vulnerable populations, like migrants.

Even though many health systems in Europe are established following the principles of universality and equity, including the Portuguese National Health Service (NHS), it must be acknowledged that many barriers have led to inequalities and inequity in healthcare access, particularly for immigrant populations (Shoevers et al 2010; Razum et al 2016). Not all migrants staying in the country have the same legal status which leads to some variations as to what is paid for healthcare. External resource limitations, discrimination, expenses to the individual, and complex and costly bureaucratic requirements are some of the barriers to healthcare access. Other constraints include poor healthcare capacity, a lack of mobility, and employment conflicts (such as healthcare provided in work hours or even fear of losing a job as a result of taking time off for care). Specifically for immigrants, other barriers include the fear of being deported (for illegal immigrants), poor communication abilities due to the lack of expertise in the language used in the services, stigma, and lack of knowledge about healthcare.

This paper measures the extent to which assimilation explains migrants' accessibility to healthcare. To answer this research question, we used an original survey of about 800 Cape Verdean immigrants residing in the Lisbon Metropolitan Area, who arrived between 2015 and 2020. Using this dataset, we investigate whether and how the time since migrant arrival affects migrants' probability of having the national healthcare user number and of satisfying their needs to access healthcare. We find that over the years since the arrival, there is a clear increase in both the probability of having a national healthcare user number and of satisfying a need of accessing healthcare increases. These effects are statistically significant across different econometric specifications.

Our paper contributes to the literature in several ways. First, it is, to the best of our

knowledge, the first quantitative study to measure immigrant assimilation in terms of healthcare accessibility. The literature available focuses mostly on labor market assimilation and, more recently, on cultural assimilation². Since healthcare plays an important role in all aspects of migrant integration, studying the effect of the years since migrant arrival on their access to healthcare fills an important gap in the literature. Second, this paper aims at drawing robust evidence in terms of the factors that affect migrants' access to healthcare. The majority of the literature has its roots in the public health field, using few data observations and qualitative analysis. Therefore, by performing an econometric estimation of assimilation effects, including robustness checks on different specifications and estimation procedures, we provide novel robust quantitative analysis on migrants healthcare accessibility.

The paper is organized as follows. Section 2 reviews the literature on economic and cultural assimilation, as well as the impact of networks on healthcare utilization. Section 3 provides information about the theoretical framework, and Section 4 defines the empirical strategy. Section 5 provides background information about Cape Verdean immigrants and the healthcare system in Portugal, and Section 6 information about the data sources and descriptive statistics. Section 7 makes a description of the variables. The main findings are shown in Section 8 along with the discussion and robustness checks and Section 9 concludes.

2. LITERATURE REVIEW

The Immigrant Assimilation Hypothesis (IAH) is a testable theoretical proposition first put forth by Chiswick (1978). This is the usual framework used for testing immigrant assimilation behavior. In this context, assimilation implies that vis-à-vis comparable natives, immigrants earn a lower starting labor income when they first arrive to the host country and, with time spent in the destination country, the initial wage gap narrows. By using cross-sectional data, the

²See, among other, Dustmann (1996); Andersson and Scott (2005); Fernandez and Fogli, (2009); Manning et al (2010); Blau (2013); Shertzer (2013); Moehling and Piehl 2014

results of Chiswick (1978) suggested that immigrants progressively acquire the language, culture, and skills valued in the labor market of the destination country and, consequently, their earnings rise - albeit at a decreasing rate, *ceteris paribus*. Furthermore, immigrants have a steeper experience-earnings profile than locals because of their higher investments in national human capital accumulation and lower opportunity costs (Duleep and Regets, 1999). Due to potential biases, longitudinal data (Chiswick 1980; Borjas 1985) was used in order to track the same migrants throughout time instead of comparing at a single moment several cohorts of immigrants that came in distinct periods. Synthetic cohort methodology (SCM) was also suggested by Borjas (1985) as a way to control for the cohort effects³. Even so, this methodology may be biased upwards since firstly, the SCM does not consider selective out-migration - due to the death or return migration of individuals that have lower wages - and secondly, it defines immigrant cohorts according to the year of immigration disregarding the possibility that some immigrants may have immigrated more than once (Lubotsky 2007). Hu (2000) and Duleep & Dowhan (2002) concluded that the assimilation impact reduces ending up disappearing with longitudinal data and that this effect returns if the initial wage varies by immigrant cohort. Panel data was used by Hum and Simpson (2000, 2004) to show that Canadian immigrants' earnings grow at a lower rate than the natives. Fertig and Schurer (2007) evidence suggested that for two out of the five immigrant cohorts there is a robust assimilation effect.

Over the past fifty years, there has been a significant increase in the body of literature examining the economic assimilation of immigration, mainly focused on the labor market, which has significantly improved our comprehension of the integration of migrants. However, still very little is known about cultural assimilation. The earliest study analyzed how immigrants' national identity is affected by the years of residence in the destination country

³ Examples of the use of SCM's applications in other countries are Adeymir, Skuterud (2005) and Friedberg (2000)

concluding that social assimilation depends on similar factors to the economic, being closely related to one another even though not interdependent (Dustmann 1996). Other work documents that immigrants and natives converged over time in a variety of social behaviors such as family size (Shertzer 2013), national identity (Manning et al 2010), and criminality (Moehling and Piehl 2014), and it usually takes more than one generation. Nonetheless a gap still exists in the second generation, related literature shows that immigrants become more similar to natives in terms of their political beliefs and gender standards (Fernandez and Fogli, 2009; Luttmer and Singhal, 2011; Blau, et al., 2013).

In terms of literature on the accessibility to healthcare, there are not only very few contributions made, but also most of them are not econometric studies⁴. Besides, healthcare utilization is often used in literature as a proxy for access even though there is a clear distinction between the two. Access implies that individuals have equal opportunities to use healthcare and therefore they may not use those opportunities equally. Devillanova (2008) examines the effect of social networks on undocumented immigrants' access to healthcare finding that it fosters healthcare utilization. Deri (2005) finds the same result but for migrants in Canada.

3. THEORETICAL FRAMEWORK

In order to test whether migration duration increases migrants' access to healthcare, one needs to begin by setting a theoretical framework to understand the potential mechanism behind this effect.

When immigrants first arrive in the destination country, they are at a disadvantage compared to natives in terms of information about the availability of healthcare, their location, cost, eligibility criteria and related details. It is expected that having a National Health Service (NHS) with universal coverage should meet immigrant needs. Nevertheless, as previously stated,

⁴ See, for example, Dias et al (2008); Norredam et al (2006); Torres et al (2007); McKee (2002); Razum et al (2016) or Schoevers et al (2010)

migrants face many barriers, such as lack of trust in the NHS, stigma, and lack of habits of using health services. Furthermore, recent migrants also tend to cluster in already established immigrant communities, being closer to individuals with the same background, culture, and ethnicity, which may constrain their access to healthcare information since there is less diversity (Edin et al, 2003). All of these barriers may impact immigrant access to healthcare.

Immigrant integration depends on several factors. For instance, it will be easier to integrate if the migrants have ex-ante similar characteristics (such as language or cultural aspects) to the population of the destination country. Being employed will also be an important part of the integration process since it not only fosters contact between the migrant and the employer and coworkers, but also may improve immigrants' satisfaction in the destination country,

IAH postulates that migrants do gradually adjust over time by acquiring knowledge about skill requirements, institutional settings, language, norms and networks (Friedberg 2000). Therefore, it is expected that, as the years since migration increase, their habits change, the cost of locating healthcare providers reduces and the trustworthiness in healthcare services and the information about the eligibility criteria increases. Furthermore, over the years, migrants have more access to networks of local people building stronger ties with them (Cai, Zimmermann 2020). This illustrates the particular importance of networks: they can supply information, provide job and wages security, create more information channels, provide peer pressure, and change consumer desire to access healthcare (Batista and Costa, 2018; Deri 2005; Devillanova 2008).

Similarly to how the economic and social integration process works, it is expected that the investment in specific destination skills will enable the integration of the immigrant in terms of their access to healthcare through, for example, the development of language skills that will make it easier for her/him to communicate with the local community and healthcare providers. In addition, the acquisition of cultural norms is going to allow them to participate in larger

community groups and therefore become more informed about their full entitlement to access healthcare. Since education is linked to an immigrant's capacity to speak the local language, to learn about the local institutions, and to exploit more and various information channels, education will likely have a favorable impact on healthcare accessibility (Devillanova 2008).

For all of the reasons mentioned above, it is expected that as the years since migrating increase, there will be a higher probability of accessing healthcare. Moreover, it is possible that there will be heterogenous effects in terms of gender and education. According to Adsera et al (2007) and Lee et al. (2020), comparatively to men, women experience greater economic vulnerability, lower social status, more limited decision-making power and access to resources. They also argue that the combination of gender, financial status, gender norms, roles, relationships, and migratory status may create unique healthcare access restrictions for migrant women. Furthermore, as previously mentioned, education is likely to have an impact in accelerating access to healthcare.

4. EMPIRICAL STRATEGY

The impact of assimilation in the accessibility to healthcare can be summarized by the following equation:

$$Access_Healthcare_i = \alpha + \beta_1 YSM_i + \beta_2 YSM_Squared_i + \beta_3 Dest_Network_i + \delta X_i + \varepsilon_1 \quad (1)$$

where i denotes individual i . *Access_Healthcare* is used as a proxy for migrants' healthcare accessibility as discussed in the following section.

Following Chiswick (1978) and Borjas (1985), Years Since Migration (*YSM*) is the main variable of interest to measure migrant assimilation. It is calculated as the difference between the survey year and the year of arrival of the migrant at the destination country. The quadratic specification of *YSM* is commonly used due to the assumption that the variables of interest are

a concave function of years since migrating, i.e., the first years upon arrival have a particularly strong impact on assimilation. Therefore, the second-degree polynomial is added - *YSM_Squared* (Chiswick, 1978).

In order to provide a basis for the mechanisms of the integration process, *Dest_Network* is added. This variable is described in the section below. X_i denotes the vector of the characteristics of the individuals (*Health_Visa* ; *Need* ; *Female* ; *Age* , *AtLeast_CompletedSecondaryEduc* ; *Employed* ; *Living Alone*) as control variables in order to improve estimation precision and tackle potential omitted variable bias. For the migrant control variables, it was added a dummy *Health_Visa* if the migrant had a visa due to health reasons in order to proxy for their prior health needs, as it could have an impact on their accessibility to healthcare services. The *Need* dummy variable controls for migrants that reported needing healthcare in the 12 months prior to the survey. This is a binary variable taking the value of 1 if they had the need, and 0 if not. We include a female dummy (*Female*) since women tend to have different family and labor relationships than men (Topa et al 2013). Additionally, migrant's need to engage with the community can also be influenced by their *Age*. *AtLeast_CompletedSecondaryEduc* is the migrant education control variable that takes the value of 1 if the migrant completed 12 years of schooling or more and 0 if not. The education variable is used as proxy for proficiency in Portuguese since language abilities of the migrant may affect their access to healthcare. Moreover, more education is usually connected with a better acquisition of knowledge. Therefore, completing secondary education can enable overcoming cultural and linguistic barriers contributing to an easy access to healthcare. Being *employed* aims to capture the immigrants' socioeconomic conditions that can be directly linked to their health status while also capture networks and channels of information that may occur between the migrant and coworkers. *Living_Alone* is a dummy variable that takes the value of 1 if the migrant lives alone and 0 if she/he has a member in the household. *Females_hh* is a

binary variable with value 1 if there is at least one female member in the household, and 0 otherwise. For the household education variable, *SecondaryEduc_hh* that takes the value 1 if there is someone in the migrant' household that completed at least 12 years of schooling, and 0 if false. We also control for the members of the household that are employed by adding a dummy variable that takes the value of 1 if the migrant has *Employed_hh*). Having someone in the family employed may increase their social networks which consequently increases their information channels.

Using this specification, the model is simply estimated by Ordinary Least Squares. Our main coefficient of interest is β_1 , that corresponds to the assimilation effect of *YSM* on healthcare accessibility.

5. CAPE VERDEAN IMMIGRANTS AND HEALTHCARE IN PORTUGAL

Especially since the 1990's, Portugal has become more of an immigrant country with inflows of people from different parts of the world. From 2011 to 2021 the number of immigrants residents increased by 40% (INE, 2021). Nevertheless, Portugal remains as one of the countries with the lowest relative fraction of immigrants relative to the total of residents, ranking 21st among the EU28 countries in 2011, according to Oliveira (2018).

Cape Verdean immigrants are the third largest immigrant communities in Portugal, representing 6,76% of the resident population in Portugal and 8,6% in the Lisbon Metropolitan Area, according to INE. In 2021, the majority is in the active labor workforce (78%) which positively contributes to tackling the strong ageing that results from the relationship between birth rates, mortality and migrations that Portugal is facing ⁵ (INE, 2021). Hence, their integration is crucial. According to the Migrant Integration Policy Index, Portugal has gradually

⁵ According to Pordata (2022), Portugal is the fastest-ageing country in the European Union, where the number of elderly people has tripled in the last three decades (INE). Besides, Portuguese individuals are, on average, 7 years older being only 65,3 % of them in the active labor workforce. Therefore, is clear the importance of their integration into a country that has a negative migration balance since 2011 (Oliveira C., 2018).

improved their integration policies over the years being one of the top ten countries, in 2019. Healthcare access was, however, the only area that was below the average in terms of integration policies since “no systematic attention is paid to migrant or ethnic minority health in any part of the health system” (Solano et al., 2020). As the inflows into Portugal for medical assistance from the National Health Service have increased being 30.4% of the Cape Verdean Temporary Stay Visas due to medical reasons, a lot of improvements still have to be made in terms of the promotion of immigrants’ literacy in the public health area and also in terms of training health and administrative professionals in migration topics as well as the promotion of the best practices from the specialists (SEF, 2018).

Despite the widespread claims of universal coverage, EU Member States fall well short of the ideal. Different countries have quite different health insurance policies, including ones that cover immigrants. When migrants are undocumented or irregular, issues frequently get worse.

In Portugal, access to healthcare is a right for all people present in the national territory, regardless of nationality, economic and/or legal status. Although an identification document is required, denying access is subject to punishment according to the current legislation. The amount paid by each group differs taking into consideration their contribution to the social security, age (individuals less than 12 years old are fully exempted) and the reason for seeking the NHS (exemption for sexual and reproductive health, pregnancy, family planning and chronic illnesses). In the case of undocumented immigrants, the law mentions the right of access to NHS even though they have to provide later on proof of their stay in Portugal for a period of more than 90 days to the health services in their area of residence. Under some circumstances like maternal and child healthcare or individuals in situation of financial need or social exclusion, full coverage is granted. For PALOP countries, namely Cape Verde, due to cooperation agreements that aim to guarantee the same conditions as national citizens, the Portuguese government has the responsibility to ensure the necessary healthcare services when

the country of origin does not have the necessary technical and human skills to provide healthcare.

6. DATA AND DESCRIPTIVE STATISTICS

6.1. Data Source

The data used in the analysis consists of a sample of 819 Cape Verdean immigrants aged 18 to 65, residing in the Lisbon Metropolitan Area, who arrived in Portugal less than five years prior to the survey. The sample was collected between September 2020 and June 2021.

The survey was conducted by Cape Verdean enumerators in Cape Verdean Creole to ensure the maximization of trust. Enumerators received detailed training from the research team. The research fellow reviewed the data daily for abnormalities or inconsistencies to assess the quality of the interviews that were consequently shared and discussed with the research team. The field coordinator, who oversaw the fieldwork, made sure that the procedure was followed, and responded to any queries that came up during interviews, constantly following and monitoring the enumerators. Additionally, the researchers, research fellow, and field coordinator met once a week to check on the fieldwork's progress.

6.2. Descriptive Statistics

Table A1 in Appendix gives information on the individual characteristics of the Cape Verdean immigrants, their perception towards healthcare and their health status. In addition, it also makes a summary of the characteristics of the household members.

57 % of the sample is female and 43% male. They are, on average, 28 years old and only 13% is married or living as a couple. On average, migrants arrived in Portugal 2.4 years ago. Even though more than half of the migrants (63.86%) is an employee, migrants have mainly a temporary contract for less than one year (43%), with only 25% of them having a permanent

contract. Regarding education attainment, the share of individuals that completed secondary school is more than 30% and 26% of them are attending college. Moreover, the majority of the migrants came to Portugal to study (50%) or to look for better job opportunities (17%). 62% has a valid visa or a residence authorization in Portugal⁶.

In terms of health, 8% has a Health Visa due to her/his health condition. 68% of the migrants has the national healthcare user number and 58% has their need of accessing healthcare satisfied. Healthcare was denied to 17% of the sample being the main reason not having the national healthcare user number (55%), or by not being legalized (29%) alongside not having the Portuguese nationality (24%).

Migrant households have, on average, two people and nine out of ten migrants (91%) speaks Crioulo at home. Even though 29% has completed secondary education, the average of members that completed or are attending college is lower than the migrant one.

7. DESCRIPTION OF VARIABLES

The concept of accessibility to healthcare used in this study refers to the ease with which people obtain healthcare. Accessibility depends on socio-organisational, geographic and cultural factors (Guilliford et al. 2002). Therefore, the concept of access is approached as freedom to use, based on the awareness of the possibility of use by the individual and his empowerment to choose. The availability of a particular service within the individual's means, as well as courtesy towards the user; the existence of scheduling systems and convenience of schedules; the patient's capacity to bear the direct and indirect costs of care; as well as subjective, social, and cultural factors are all related. In this sense, individual characteristics, the degree of adequate interaction between people and their communities and the health system will determine the level of access to healthcare services. It is critical to take into consideration

⁶ See Appendix- Table A1 Panel B for more information about this variable

that, equal needs require equal opportunities which are not directly linked to making equal use of those opportunities, as previously mentioned.

With this healthcare accessibility definition in mind, we will use two variables aimed at measuring the accessibility to healthcare for immigrants:

Health_Number is a dummy variable that takes the value of 1 if the migrant reported to have a national healthcare user number. Having the national healthcare user number proves the identity of its holder in the institutions and services integrated in the NHS and it is usually shown in order to receive healthcare, request diagnostic and therapeutic aids and acquire medication. In order to have it, a residence authorization or a valid visa is required. According to the Portuguese law, migrants are entitled to have access to national public healthcare even if there is no national healthcare user number associated to the individual. However, the knowledge that we got from the field interviews with Cape Verdean immigrants was that in fact the national healthcare user number was required by the healthcare staff to access public healthcare services. This goes in line with the descriptive statistics from the Cape Verdean immigrant survey we conducted - where 55% of migrants said that their access was denied due to not having a health card and 25% did not satisfy the need of accessing healthcare due to the same reason. Therefore, this administrative measure is key to evaluate migrants' accessibility to healthcare.

Need_Satisfied is a dummy variable that takes the value of 1 if the migrant reported that, in the 12 months prior to the survey, they satisfied their need of accessing healthcare, and 0 if the migrant reported that they had their need not satisfied. This variable is only available for those immigrants who report having had the need for healthcare. This variable can include their satisfaction with the process of accessing healthcare, namely in terms of their perception of the opportunities they have to access it like distance, financial resources, bureaucratic requirements or even employment conflicts.

In order to better understand the determinants of the integration process, *Dest_Network* is also added as a variable that refers to the size of the migrant's social network in the destination country. Ideally, it will include not only all the interpersonal relations that the migrant has including family and/or friends but also the strongness of these ties. Nevertheless, since gathering information about networks is expensive requiring a lot of time, and cognitive effort from the interviewee, *Dest_Network* only includes the number of members in the migrants' household (Van der Poel 1993; Kogovsek et al 2002).

8. ECONOMETRIC RESULTS

Results from the estimation of econometric model (1) using as dependent variables having a national healthcare user number and satisfying healthcare needs are reported in Tables 1 and 2, respectively.

A. Assimilation effects on having a national healthcare user number

We find evidence of a significant assimilation effect on the probability of having a national healthcare number across all estimated specifications (1)- (5) in Table 1.

In column (1), we find that that an increase of one year in the destination country stay increases the probability of holding a national health card by 14.6 p.p., statistically significant at the 1% level. When we include both the migrants' destination network and the control variable for having a visa due to health reasons the coefficient of interest remains similar when comparing to the previous specifications, as shown in column (3) of Table 1. With the individual control variables, in column (4), when YSM increases by one year, there is an increase in the probability of having a national healthcare user number in 12.9 p.p., statistically significant at 1%. Therefore, by adding the destination networks, and the migrants control variables the main coefficient slightly decreases although remaining significant. When the household controls are added, the effect of YSM on having the national healthcare user number

is still positive and statistically significant at 1%. In fact, the magnitude of the coefficient remains at the 12.9 p.p.

We follow the literature in testing the IAH using a quadratic of YSM, and our results in all specifications (1)- (5) confirm a concave shape for the assimilation effect in that the quadratic term has a small negative impact on assimilation, which should be interpreted as the first years upon migrant arrival increasing the probability of holding a national health number the most.

Table 1 - Impact of Years Since Migration (YSM) on having a national healthcare user number

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Basic	Network	Having a Health Visa	Migrant Controls	Migrant + Household Controls
YSM	0.146*** (0.027)	0.147*** (0.027)	0.148*** (0.027)	0.129*** (0.028)	0.129*** (0.028)
YSM_Squared	-0.010** (0.004)	-0.010*** (0.004)	-0.010*** (0.004)	-0.008** (0.004)	-0.008** (0.004)
Dest_Network		0.007 (0.010)	0.006 (0.010)	0.003 (0.014)	0.013 (0.016)
Health_Visa			-0.045 (0.060)	-0.020 (0.064)	-0.030 (0.064)
Need				0.124*** (0.034)	0.125*** (0.034)
Female				-0.002 (0.033)	-0.003 (0.033)
Age				-0.001 (0.002)	-0.002 (0.003)
AtLeast_CompletedSecondaryEduc				0.142*** (0.042)	0.146*** (0.042)
Employed				-0.027 (0.034)	-0.028 (0.034)
Living_Alone				-0.034 (0.051)	-0.080 (0.060)
Female_hh					-0.042 (0.045)
Secondary_hh					-0.019 (0.037)
Employed_hh_					-0.032 (0.042)
Constant	0.407*** (0.045)	0.392*** (0.050)	0.394*** (0.050)	0.316*** (0.103)	0.367*** (0.112)
Observations	817	817	817	811	811
R-squared	0.079	0.079	0.080	0.109	0.111

Notes: Estimation was made used OLS in column (1) - (5); The outcome of interest is Health_Number (migrant has the national health number=1). Years since Migration (YSM) measures the duration of the migrant in the destination country. YSM_Squared is the Years Since Migration Squared. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (Female_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

As a robustness check, it is important to note that restricting the estimation sample to the migrants that needed healthcare in the twelve months prior to the survey seems to yield relatively similar assimilation estimates in terms of both the magnitude and significance of the results, as is shown in Table A3 of the Appendix.

Unlike observed in past literature on the labor market and cultural assimilation (Docquier et al. 2014; Lee et al. 2022; Palo et al. 2007), we cannot find evidence of any statistically significant differences between the assimilation speed (in terms of the probability of having the national healthcare user number) between females and males, as can be learned from the results of the heterogeneous effects of gender on Table A4 of the Appendix. As can be seen in Table A5 of the Appendix, we also cannot find significant heterogeneous effects in our regressions that support the hypothesis that completing more education changes the speed of assimilation in terms of the probability of holding a national health number.

B. Assimilation effects on access to healthcare

As shown in columns (1) - (5) of Table 2, the OLS estimates indicate a significant effect on healthcare access as the years since migration increase. An increase of one year since arrival, increases the probability of satisfying the need by 10.5 p.p., statistically significant at 5% in column (1), when no controls are included in the regression. Adding the controls of destination networks *Health_Visa* decreases the value and significance of the coefficient (to 10.3 p.p., significant at the 10% confidence level). Including a full set of controls on individuals and their households, the magnitude and significance of the YSM coefficient only slightly increases – one more year since migrating increases the probability of migrants satisfying their healthcare need by 10.9 p.p., statistically significant at 5%, as shown in Column (5) of Table 2.

Table 2 - Impact of Years Since Migrating (YSM) on satisfying the need of accessing healthcare

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Basic	Network	Having a Health Visa	Migrant Controls	Migrant + Household Controls
YSM	0.105** (0.053)	0.103* (0.053)	0.103* (0.053)	0.107** (0.054)	0.109** (0.054)
YSM_Squared	-0.011 (0.008)	-0.010 (0.008)	-0.010 (0.008)	-0.011 (0.008)	-0.011 (0.008)
Dest_Network		-0.008 (0.015)	-0.007 (0.015)	0.004 (0.020)	-0.010 (0.023)
Health_Visa			0.093 (0.067)	0.088 (0.074)	0.110 (0.074)
Female				-0.009 (0.047)	-0.013 (0.048)
Age				0.000 (0.003)	0.000 (0.003)
AtLeast_CompletedSecondaryEduc				0.030 (0.058)	0.031 (0.059)
Employed				-0.033 (0.049)	-0.034 (0.049)
Living_Alone				0.059 (0.070)	0.115 (0.085)
Female_hh					0.100 (0.065)
Secondary_hh					-0.026 (0.053)
Employed_hh					0.037 (0.063)
Constant	0.460*** (0.079)	0.480*** (0.087)	0.467*** (0.087)	0.434*** (0.156)	0.368** (0.167)
Observations	476	476	476	472	472
R-squared	0.018	0.018	0.022	0.025	0.030

Notes: Estimation was made using OLS in column (1) - (5); The outcome of interest is Satisfy_Need (need of accessing healthcare was satisfied=1; need of accessing healthcare was not satisfied=0). Years since Migration (YSM) measures the duration of the migrant in the destination country. YSM_Squared is the Years Since Migration Squared. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (Females_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and the number of members that are employed. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Similarly to the results on the probability of holding a national health number and unlike the existing literature on labor market and cultural assimilation, we find no statistically significant evidence of heterogeneous assimilation effects in terms of gender or education, as is displayed in Table A6 and A7, respectively.

C. DISCUSSION

In this study, we find clear novel evidence of the assimilation process of migrants in terms of healthcare access in terms of both holding a national healthcare user number and the probability of accessing healthcare.

Moreover, and as previously discussed, the investment made by the migrants in the post-migration period (for example, learning specific destination skills) has later a return to facilitate their integration, but at a decreasing rate over time. Nevertheless, *YSM_Squared* had statistically insignificant coefficients in terms of satisfying the migrant's need to access healthcare. This can be justified by the fact that the sample only includes migrants that arrived in the 5 years prior to the survey. Therefore, we were not able to capture the quadratic returns for the variable *Satisfy_Need*.

Although the effect of destination networks is not our main focus, it's important to understand these coefficients since these networks could potentially impact the healthcare assimilation process of the migrant. As stated before, networks are believed to have a crucial role in the development of productive social capital, including social interactions and information flows, which are likely to promote integration. Nevertheless, the insignificant relationship between the dependent variables (*Health_Number* and *Need_Satisfied*) and the *Dest_Networks* variable does not lend support to this theory. Some explanations can be given. Firstly, while ethnic networks might contribute to the initial integration of immigrants, in the medium run they carry the risk of segregating communities and ultimately hindering the process of integration in the host country, representing more of a constraint than an opportunity (De Palo et al. 2007). Additionally, since the definition of destination networks in this study included only household members, we can also claim that, probably a more extended network definition, including friends, neighbors or colleagues could have a bigger impact in terms of migrants' access to healthcare. Although we control for the migrant employment status, this

variable may not be sufficient to incorporate all of the channels of influence between the migrant and the networks they have in the destination country.

D. ROBUSTNESS CHECKS

How can we best ensure that the estimated findings are truly capturing improved access to healthcare with increased migration duration? One might speculate that the causal effects of time since arrival on access to healthcare are complicated due to endogeneity problems. For instance, sample selection may be driving our results. This problem may arise because only migrants with certain unobservable characteristics select into reporting their need for healthcare. For example, it may happen that only more entrepreneurial migrants feel entitled to healthcare, hence reporting their healthcare need (which results in being included in our sample for the healthcare access outcome variable) – and these migrants are exactly the ones that are more likely to have access to healthcare. This type of sample selection could bias our estimation results. In order to tackle this potential estimation bias, and to ensure the robustness of the results, we estimate the IV-Heckit model in Tables A8 and A9. It is important to note that we did control for observables and included them as regressors in the main econometric specification however if endogeneity occurs in unobservables the Heckman model is necessary. Thus, as identifying variables, we use the health status of the migrant (*Health_Status*) and migrants' limitations to perform activities in the last 6 months (*Limitations*). The former was reported by the migrant on a scale of 1 to 5, being 1 “Really Bad Health Status” and 5 “Really Good Health Status” stating how they classify their health status. The *Limitations* was reported on a scale from 1 (“Very Limited”) to 3 (No limitation”). Both variables will help us to predict the probability that someone tells us that they need healthcare. These instrumental variables turn out to be highly significant in the selection equation. Interestingly enough the results about the effect of YSM on the *Access_Healthcare* are basically unchanged when we

compare them to the OLS estimates. For instance, the estimation for the *Satisfy_Need* dependent variable remains significant (Table A9). The size of the destination network remains to have no impact on *Satisfy_Need*. Therefore, we can conclude that the selectivity correction is not significant for the migrants, suggesting that the key finding of the study holds: immigrants assimilate in terms of their access to healthcare.

In line with the insignificant effects on the *Dest_Network* coefficient and the possible impact of it in the main coefficient of interest (β_1), we also test for a potential process that could explain how networks affect immigrants' access to healthcare. The variable that measured the size of the members in the household (*Dest_Network*) was replaced with the *Number_ArrivedBef* variable that measures the size of the members in the household that arrived before the migrant (Table A10 and A11 in Appendix). The estimates of the variable of interest do not change across all specifications and an increase of one year since the arrival of the migrant increases migrants' probability of having a national healthcare user number in 12.8 p.p., being significant at 1%. The effect of the number of members that arrived before the migrant on the probability of having a national healthcare user number is negative (and closer to zero) but not statistically significant (Table A10). The main coefficient of interest in terms of satisfying the need remains positive, with similar values and still significant (Table A11). Estimates for the *Number_ArrivedBef* are statistically insignificant in all specifications, as previously.

9. CONCLUSION

The aim of this paper was to analyze migrants' assimilation into the destination country from a healthcare accessibility point of view. This is a novel, important research question that had not been previously examined in the literature.

We find evidence supportive of the migrant assimilation hypothesis on the outcome variables that measure the accessibility to healthcare. Developing language skills, building a stronger network or even being more prone to search for information namely in terms of the eligibility criteria to access healthcare, increases migrants' probability of having a national healthcare user number and satisfying their need to access healthcare. We observe that for each additional year in the destination country, the probability of having a national healthcare user number increases by 12.9 p.p. The results also show a significant positive effect of years since migration on migrants' probability of satisfying their need – an increase of 1 year since arrival, increases the probability of the migrant satisfying him/her in 10.9 p.p. We expand our analysis to include heterogeneous effects of gender into healthcare integration and concluded that both women and men integrate at a similar rate. Similarly, having completed secondary education seems to have no impact on their accessibility to healthcare.

To strengthen the validity of our results, we perform several robustness checks that reinforced the idea that the results are acceptable. To rule out the effect of sample selection in terms of reporting the need for healthcare, an Heckit-IV model was used, leading to the conclusion that the selectivity correction was not significant. Due to the low impact of the destination network on the variables of interest, we restricted the variable to the network that arrived before the migrant and the results were robust.

Hence, these findings contribute to new insights into the assimilation literature concluding that assimilation is a key part of the integration of migrants in terms of their access to healthcare.

These findings give raise some policy implications. With the rising percentage of the

immigrant population, there is an urgent need to allow a full and easy access to healthcare to migrants regardless of their legal status, language skills and education level which is shown to hinder their access. Besides non-discrimination and cultural sensitivity requires a learning process for everyone, especially for healthcare providers. Therefore, health professionals, managers and politicians need to strive to understand cross-cultural care and implementing actions to improve the process to access healthcare. Moreover, one lesson of this study is the importance of the availability of more high-quality information and research in the field of migration healthcare and other fields rather than economic assimilation. This will enable more evidence-based decision making.

Nevertheless, there are some factors that we could not take into account. These would be interesting to explore in further research. Our sample covers both documented and undocumented migrants, nevertheless the type of migration may affect their incentives and barriers in terms of access to healthcare. Due to ethic reasons, we were only able to capture the aggregate effect of the legal status of migrants but in fact, if immigrants are illegal, they may tend to be excluded from healthcare more easily reinforcing the cycle of poverty and exclusion. Another caveat is the short time span of the study. The results found included migrants that arrived at least 5 years ago and therefore it would be interesting to see if whether the concave relation assumed in the literature between YSM and the variables of interest hold, in the particular case that we follow migrants' accessibility to healthcare for a longer period of time. In addition, it will be also relevant to examine the channels through which information reaches the migrant and whether effects differ between genders. Moreover, to assess the gap between native-born accessibility to healthcare and immigrants, a comparison between the two could be interesting. Overall, additional research is required to determine the underlying procedures that influence immigrants' healthcare integration, as well as the policies that are able to play a role in closing the barriers immigrants face.

BIBLIOGRAPHY

- Abramitzky, Ran, Leah Boustan, and Katherine Eriksson. 2020. "Do Immigrants Assimilate More Slowly Today than in the Past?" *American Economic Review: Insights* 2 (1): 125–41.
- Adsera, Alicia, and Barry R. Chiswick. 2007. "Are There Gender and Country of Origin Differences in Immigrant Labor Market Outcomes across European Destinations?" *Journal of Population Economics*.
- Andersson, Gunnar, and Kirk Scott. 2005. "Labor-Market Status and First-Time Parenthood: The Experience of Immigrant Women in Sweden, 1981–97." *Population Studies* 59 (1): 21–38. <https://doi.org/10.1080/0032472052000332683>.
- Angelini, V., Casi, L., & Corazzini, L. 2015. "Life satisfaction of immigrants: does cultural assimilation matter?" *Journal of Population Economics*, 28(3), 817-844.
- Batista, Cátia, and Ana Isabel Costa. 2016 "Assessing the Role of Social Networks on Migrant Labor Market Outcomes." *NOVAFRICA Working Paper Series*.
- Batista, Cátia, and Gonçalo Gameiro. 2022 "No Longer a Stranger: a Cross-Country Longitudinal Analysis of Immigrant Economic and Social Integration." *Nova SBE MA Dissertations*.
- Batista, Cátia, and Rita Neves. 2022. "Social Networks and Mental Health: The Experience of Cape-Verdean Migrants in Portugal." *NOVAFRICA Working Paper Series No 2204*.
- Borjas, George J. 1985. "Assimilation, Changes in Cohort Quality, and the Earnings of Immigrants." *Journal of Labor Economics* 3 (4): 463-89.
- Borjas, George. 1991. "National Origin and the Skills of Immigrants in the Postwar Period." w3575. Cambridge, MA: National Bureau of Economic Research. <https://doi.org/10.3386/w3575>.
- Borjas, George. 1994. "The Economics of Immigration." *American Economic Review*, 32

(no.4): 1667–1717.

- Bosetti, Valentina, Cristina Cattaneo, and Elena Verdolini. 2015. “Migration of Skilled Workers and Innovation: A European Perspective.” *Journal of International Economics* 96 (2): 311–22. <https://doi.org/10.1016/j.jinteco.2015.04.002>.
- Bronchetti, Erin Todd. 2014. “Public Insurance Expansions and the Health of Immigrant and Native Children.” *Journal of Public Economics* 120 (December): 205–19. <https://doi.org/10.1016/j.jpubeco.2014.09.011>.
- Blau, Francine D., Lawrence M. Kahn, Albert Yung-Hsu Liu, and Kerry L. Papps. 2013. “The Transmission of Women’s Fertility, Human Capital, and Work Orientation Across Immigrant Generations.” *Journal of Population Economics* 26 (2): 405–35.
- Cai, Shu and Klaus F. Zimmermann. 2020. Social assimilation and labor market outcomes of migrants in China. *Global Labor Organization (GLO) DP 716*
- Chiswick, Barry R. 1978. “The Effect of Americanization on the Earnings of Foreign-Born Men.” *Source: Journal of Political Economy*. Vol. 86. <https://about.jstor.org/terms>.
- Chiswick, Barry R. 1980. “The Earnings of White and Coloured Male Immigrants in Britain.” *Economica* 47 (185): 81–87. <https://doi.org/10.2307/2553169>.
- De Palo, D., Faini, R., Venturini, A. 2007. “The Social Assimilation of Immigrants.” *The World Bank Social Protection DP 0701*.
- Deri, Catherine. 2005. “Social Networks and Health Service Utilization.” *Journal of Health Economics* 24 (6): 1076–1107. <https://doi.org/10.1016/j.jhealeco.2005.03.008>.
- Devillanova, Carlo. 2008. “Social Networks, Information and Healthcare Utilization: Evidence from Undocumented Immigrants in Milan.” *Journal of Health Economics* 27 (2): 265–86. <https://doi.org/10.1016/j.jhealeco.2007.08.006>.
- Docquier, Frédéric, Giovanni Peri, and Ilse Ruyssen. 2014. “The Cross-Country Determinants of Potential and Actual Migration.” *International Migration Review*. Blackwell Publishing

- Inc. <https://doi.org/10.1111/imre.12137>.
- Duleep, Harriet Orcutt, and Daniel J Dowhan. 2002. "Insights from Longitudinal Data on the Earnings Growth of U.S. Foreign-Born Men." *Demography* 39 (Vol 39, No3): 485– 506
- Duleep, Harriet, Orcutt, and Mark C. Regets. 1999. "Immigrants and Human-Capital Investment." *American Economic Review*, 89 (2): 186-191.
- Dustmann, Christian. 1996. "The Social Assimilation of Immigrants." *J Popul Econ*. Vol. 9. Springer-Verlag.
- Edin, P. A., LaLonde, R. J., & Åslund, O. 2000. *Emigration of Immigrants and Measures of Immigrant Assimilation: Evidence from Sweden* (No. 2000: 13). Working paper.
- Elsner, Benjamin, Gaia Narciso, and Jacco Thijssen. 2018. "Migrant networks and the spread of information." *Oxford Bulletin of Economics and Statistics* 80, no. 3: 659-688.
- Fernández, Fogli, and Alessandra Fogli. 2009. "Culture: An Empirical Investigation of Beliefs, Work, and Fertility." *American Economic Journal: Macroeconomics* 1(1): 146–77. <https://doi.org/10.1257/mac.1.1.146>.
- Fertig, Michael, and Stefanie Schurer. 2007. "Earnings Assimilation of Immigrants in Germany: The Importance of Heterogeneity and Attrition Bias." *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.1096143>.
- Friedberg, R. M. 1992. The labor market assimilation of immigrants in the United States: the role of age at arrival. *Brown University*.
- Friedberg, Rachel M. 2000. "You Can't Take It with You? Immigrant Assimilation and the Portability of Human Capital." *Journal of Labor Economics* 18 (2): 221–51. <https://doi.org/10.1086/209957>.
- Green, David A. 1999. "Immigrant Occupational Attainment: Assimilation and Mobility over Time." *Journal of Labor Economics* 17 (1): 49–79. <https://doi.org/10.1086/209913>.
- Gulliford, M., Figueroa-Munoz, J., Morgan, M., Hughes, D., Gibson, B., Beech, R., & Hudson,

- M. 2002. "What does 'access to health care' mean?". *Journal of health services research & policy*, 7(3), 186-188.
- Hu, Wei-Yin. 2000. "Immigrant Earnings Assimilation: Estimates from Longitudinal Data." Vol. 90. *American Economic Association*.
- Hum, Derek, and Wayne Simpson. 2000. "Closing the Wage Gap: Economic Assimilation of Canadian Immigrants Reconsidered." *Journal of International Migration and Integration / Revue de l'integration et de La Migration Internationale* 1 (4): 427–41. <https://doi.org/10.1007/s12134-000-1023-3>.
- Hum, Derek, and Wayne Simpson. 2004. "Economic Integration of Immigrants to Canada A Short Survey." *Canadian Journal of Urban Research, The Economics of Immigration and Canada's Cities*, 13 (1): 17.
- "INE, I.P. 2021. Estatísticas Demográficas; Ministério da Administração Interna - Serviço de Estrangeiros e Fronteiras Statistics Portugal
- Jiménez-Rubio, Dolores, and Judit Vall Castelló. 2020. "Limiting Health-Care Access to Undocumented Immigrants: A Wise Option?" *Health Economics (United Kingdom)* 29 (8): 878–90. <https://doi.org/10.1002/hec.4115>.
- Kalemli-Ozcan, Sebnem, Harl E Ryder, and David N Weil. 2000. "Mortality Decline, Human Capital Investment, and Economic Growth." *Journal of Development Economics* Ž. Vol. 62. www.elsevier.com/locate/reconbase.
- LaLonde, Robert J., and Robert H. Topel. 1992. "The Assimilation of Immigrants in the U. S. Labor Market." *National Bureau of Economic Research, Immigration and the Workforce: Economic Consequences for the United States and Source Areas*, 67–92.
- Lee, T., Peri, G., & Viarengo, M. 2022. "The gender aspect of migrants' assimilation in Europe". *Labour Economics*, 78, 102180.
- Lubotsky, Darren. 2007. "Chutes or Ladders? A Longitudinal Analysis of Immigrant Earnings."

- Journal of Political Economy* 115 (5): 820–67. <https://doi.org/10.1086/522871>
- Luttmer, Erzo F. P., and Monica Singhal. 2011. “Culture, Context, and the Taste for Redistribution.” *American Economic Journal: Economic Policy*, 3 (1): 157-79.
- Manning, A. and Roy, S. 2010, Culture Clash or Culture Club? National Identity in Britain. *The Economic Journal*, 120: F72-F100. <https://doi.org/10.1111/j.1468-0297.2009.02335.x>
- Mayda, Anna Maria, Giovanni Peri, and Walter Steingress. 2022. “The Political Impact of Immigration: Evidence from the United States.” *American Economic Journal: Applied Economics* 14 (1): 358–89. <https://doi.org/10.1257/app.20190081>.
- McKee, M. 2002. “What can health services contribute to the reduction of inequalities in health?” *Scandinavian Journal of Public Health*, 30(59_suppl), 54-58.
- Mestres, A. J., Casasnovas, G. L., & Castelló, J. V. 2021. “The deadly effects of losing health insurance”. *European Economic Review*, 131, 103608.
- Moehling, Carolyn M., and Anne Morrison Piehl. 2013. “Immigrant Assimilation into US Prisons, 1900–1930.” *Journal of Population Economics* 27, no. 1: 173-200.
- Norredam, M., Mygind, A., & Krasnik, A. 2006. “Access to healthcare for asylum seekers in the European Union—a comparative study of country policies”. *The European Journal of Public Health*, 16(3), 285-289.
- Oliveira, C. R. (coord.) e Gomes, N. 2018. Migrações e Saúde em números: o caso português - Caderno Estatístico Temático #2, *Coleção Imigração em Números do Observatório das Migrações*
- Razum, O., & Bozorgmehr, K. 2016. “Restricted entitlements and access to healthcare for refugees and immigrants: The example of Germany”. *Global Social Policy*, 16(3), 321–324. <https://doi.org/10.1177/1468018116655267>
- Schoevers, M.A., Loeffen, M.J., van den Muijsenbergh, M.E. 2010. “Healthcare utilisation and problems in accessing healthcare of female undocumented immigrants in the

Netherlands.” *Int J Public Health* 55, 421–428. <https://doi.org/10.1007/s00038-010-0151-6>

SEF, Serviços de Estrangeiros (2018) Relatório de Imigração, Fronteiras e Asilo. Relatório Anual de Imigração. Lisboa, Portugal: *Serviço de Estrangeiros e Fronteiras*. <https://sefstat.sef.pt/Docs/Rifa2017.pdf>.

Shertzer, Allison. 2013 “Immigrant Group Size and Political Mobilization: Evidence from European Migration to the United States.” *NBER Working Paper* 18827

Solano, G., & Huddleston, T. 2020. Migrant integration policy index - MIPEX. *Migration Policy Group*.

Topa, J., Neves, S., & Nogueira, C. 2013. “Imigração e saúde: a (in) acessibilidade das mulheres imigrantes aos cuidados de saúde.” *Saúde e sociedade*, 22, 328-341.

Torres-Cantero, A. M., Miguel, A. G., Gallardo, C., & Ippolito, S. 2007. “Healthcare provision for illegal migrants: may health policy make a difference?.” *European Journal of Public Health*, 17(5), 483-485.

van Meeteren, Masja, and Sonia Pereira. 2018 "Beyond the ‘migrant network’? Exploring assistance received in the migration of Brazilians to Portugal and the Netherlands." *Journal of International Migration and Integration* 19, no. 4: 925-944

World Health Organization (2008). Closing the gap in a generation: health equity through action on the social determinants of health: Commission on Social Determinants of Health final report. *World Health Organization*.

World Health Organization. (2009). Women and health: today's evidence tomorrow's agenda. *World Health Organization*.

APPENDIX

Table A1 - Summary Statistics of the individual characteristics of Cape Verdean Migrants, health, and characteristics of migrants' household

	Mean	SD	N
Panel A – Individual Characteristics of Recent Arrived Migrants			
Female	0.57	0.49	819
Age	27.57	7.30	819
Years Since Migration	2.43	1.45	819
Number of migrants living alone	0.20	0.40	819
Marital Status			
Married or living as a couple	0.13	0.33	819
Divorced/Widow/Single	0.87	0.33	819
Main Occupation			
Self Employed	0.04	0.17	819
Employee	0.64	0.48	819
Out of labor force	0.32	0.47	819
Employment Contract			
Permanent	0.25	0.43	526
Temporary for more than 1 year	0.15	0.36	526
Temporary for less than 1 year	0.43	0.49	526
No contract	0.17	0.38	526
Level of Education			
Primary School	0.04	0.18	811
Secondary	0.31	0.47	811
Attending College	0.26	0.44	811
College	0.19	0.40	811
Religion			
Catholic	0.77	0.42	819
Language spoken at home			
Crioulo	0.91	0.28	819
Portuguese	0.09	0.28	819
Reason to migrate to Portugal			
To study	0.50	0.50	819
Looking for a job	0.06	0.22	819
Better job opportunities	0.17	0.37	819
Health reasons (having a health visa)	0.08	0.26	819
Family reasons	0.09	0.29	819
Was here in vacation and decided to stay	0.05	0.23	819
Money reasons	0.04	0.18	819
Panel B - Individual Characteristics of Recent Arrived Migrants on having a Portuguese Visa			
Having a valid Visa or a Residence Authorization in Portugal	0.62		375
Females that have a valid visa or a Residence authorization	0.70		375

Notes: Due to ethical reasons the estimation of “Having a valid Visa or a Residence Authorization in Portugal” was only made for the aggregate sample. Two questions were randomly assigned to the migrants. One had three statements: “I have a driver’s license”; “I have a family member living in Brazil”; and “I took public transportation last week”. The other question had four statements adding the “At this moment, I have a valid visa or a residence authorization in Portugal” to the three statements previously mentioned. Migrants were asked to say the number of sentences that were true. The percentage of migrants that had a valid visa/residence authorization was estimated by the difference of the means of these two questions.

Panel C – Health Variables	Mean	SD	N
Having a national healthcare user number	0.68	0.46	817
Having the Need to Access Healthcare in the last 12 months	0.58	0.49	819
Satisfying the need to access healthcare			
Satisfied	0.64	0.48	476
Not Satisfied	0.36	0.48	476
Reasons that hinder migrants to access healthcare			
Not having Portuguese Nationality	0.15	0.36	579
Not having Health Card	0.25	0.43	579
Economic Conditions	0.23	0.42	579
Communication Difficulties	0.03	0.16	579
Not being Legalized	0.16	0.36	579
Discrimination for being immigrant	0.05	0.22	579
Access to healthcare was allowed			
Allowed	0.83	0.37	579
Denied	0.17	0.37	579
Reasons for being denied access to healthcare			
Not having Portuguese Nationality	0.24	0.43	90
Not having Health Card	0.55	0.50	90
Economic Conditions	0.08	0.27	90
Communication Difficulties	0.01	0.11	90
Not being Legalized	0.29	0.46	90
Discrimination for being immigrant	0.06	0.24	90
Health Status			
Very Bad	0.02	0.13	819
Bad	0.03	0.16	819
Reasonable	0.38	0.49	819
Good	0.41	0.49	819
Very Good	0.16	0.36	819
Felt limited to perform activities in the last 6 months			
Very limited	0.06	0.25	819
Limited, but not severely	0.21	0.40	819
No limitation	0.72	0.45	819
Panel D – Individual Characteristics of the members of migrants’ household	Mean	SD	N
Number of members in the household	1.99	1.57	819
Number of members that arrived before the migrant	1.11	1.69	819
Having a female member in the household	0.62	0.48	819
Age	54.43	47.43	819
Main Occupation			
Employed	0.61	0.48	819
Student	0.34	0.47	819
Retired	0.04	0.21	819
Unemployed	0.20	0.40	819

Level of Education			
Primary School	0.14	0.35	819
Secondary	0.29	0.45	819
Attending College	0.14	0.34	819
College	0.13	0.34	819

Table A2 – Description of the variables used in the estimation

Variables of this Study	Description
Outcome variables	
National healthcare user number	Dummy variable (1 = migrant has the national healthcare user number; 0 = migrant does not have the national healthcare user number)
Need Satisfied	Dummy variable (1 = migrant has its need of accessing healthcare satisfied; 0 = migrant did not satisfy his/her need)
Independent variables	
Years since Migration (YSM)	Difference between the year that the migrant made the survey and the year of arrival at the destination country
Years since Migration Squared	Difference between the year that the migrant made the survey and the year of arrival at the destination country squared
Size of Network (<i>Dest_Network</i>)	Number of members in migrants' household
Migrant Control Variables	
Health Visa	Dummy variable (1 = migrant has a health visa; 0 = migrant does not have a health visa)
Need	Dummy variable (1 = migrant had the need to access healthcare in the last 12 months; 0 = migrant did not have the need to access healthcare in the last 12 months)
Female	Dummy variable (1 = migrant is female; 0 = migrant is male)
Age	Continuous variable with the age of the migrant
At Least Secondary School	Dummy variable (1 = migrant completed 12 or more years of education; 0 = migrant completed less than 12 years of education)
Employed	Dummy variable (1 = migrant is an employee or self-employed; 0 = migrant is unemployed)
Living Alone	Dummy variable (1 = migrant lives alone in the house; 0 = migrant has other members in the household)
Household Control Variables	
At Least Secondary School	Dummy variable (1 = migrant has at least one member who completed 12 or more years of education; 0 = migrant has a member who completed less than 12 years of education)
Female	Dummy variable (1 = migrant household has at least one female member; 0 = migrant household has no female member)
Employed	Dummy variable (1 = migrant household has a member who is an employee or self-employed; 0 = migrant household has no member who is an employee or self-employed)

Table A3- Effect of Years since Migration (YSM) on having a national healthcare user number - (Restricted sample for the migrants that reported that they needed, in the past 12 months, to access healthcare)

	(1)	(2)	(3)	(4)	(5)
VARIABLES	Basic	Network	Having a Health Visa	Migrant Controls	Migrant + Household Controls
YSM	0.152*** (0.048)	0.157*** (0.047)	0.157*** (0.048)	0.160*** (0.048)	0.160*** (0.048)
YSM_Squared	-0.013* (0.007)	-0.014** (0.007)	-0.014** (0.007)	-0.014** (0.007)	-0.014** (0.007)
Dest_Network		0.017 (0.013)	0.016 (0.013)	0.016 (0.018)	0.021 (0.020)
Health_Visa			-0.088 (0.066)	-0.061 (0.071)	-0.069 (0.071)
Female				-0.011 (0.042)	-0.010 (0.042)
Age				-0.003 (0.003)	-0.003 (0.003)
AtLeast_CompletedSecondaryEduc				0.031 (0.048)	0.031 (0.049)
Employed				-0.053 (0.039)	-0.052 (0.039)
Living_Along				0.001 (0.065)	-0.020 (0.078)
Female_hh					-0.034 (0.056)
Secondary_hh					0.007 (0.045)
Employed_hh_					-0.015 (0.053)
Constant	0.468*** (0.074)	0.426*** (0.079)	0.438*** (0.079)	0.530*** (0.135)	0.554*** (0.148)
Observations	475	475	475	472	472
R-squared	0.061	0.065	0.069	0.075	0.076

Notes: Estimation was made used OLS in column (1) - (5); The outcome of interest is Health_Number (migrant has the national health number=1). Years since Migration (YSM) measures the duration of the migrant in the destination country. YSM_Squared is the Years Since Migration Squared. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Along=1). Household Control variables include having at least one female in the household (Female_hh=1), having at least one member with more than secondary education (Secondary_hh=1) and the if members are employed. Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A4 - Analysis of Heterogeneous Effects of Gender for the Dependent Variable on having a national healthcare user number

VARIABLES	(1) Basic	(2) Interaction term	(3) Network	(4) Having a Health Visa	(5) Migrant Controls	(6) Household + Migrant Controls
YSM	0.087*** (0.010)	0.106*** (0.018)	0.106*** (0.018)	0.107*** (0.018)	0.097*** (0.018)	0.096*** (0.018)
Female_YSM		-0.029 (0.021)	-0.030 (0.021)	-0.030 (0.022)	-0.026 (0.022)	-0.029 (0.022)
Female		0.096 (0.066)	0.095 (0.066)	0.099 (0.066)	0.057 (0.066)	0.063 (0.067)
Dest_Network			0.005 (0.010)	0.005 (0.010)	0.003 (0.013)	0.012 (0.016)
Health_Visa				-0.051 (0.062)	-0.017 (0.064)	-0.028 (0.064)
Need					0.129*** (0.033)	0.131*** (0.034)
Age					-0.002 (0.002)	-0.002 (0.003)
AtLeast_CompletedSecondaryEduc					0.142*** (0.042)	0.145*** (0.042)
Employed					-0.020 (0.034)	-0.021 (0.034)
Living_Alone					-0.033 (0.051)	-0.079 (0.060)
Female_hh						-0.045 (0.045)
Secondary_hh						-0.016 (0.037)
Employed_hh						-0.033 (0.042)
Constant	0.472*** (0.032)	0.415*** (0.051)	0.404*** (0.055)	0.405*** (0.056)	0.330*** (0.107)	0.379*** (0.116)
Observations	817	817	817	817	811	811
R-squared	0.074	0.076	0.077	0.077	0.107	0.109

Notes: Estimation was made using OLS in column (1) - (6); The outcome of interest is Health_Number (migrant has the national health number=1). Years since Migration (YSM) measures the duration of the migrant in the destination country. Female_YSM is the interaction variable between YSM and gender. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (females_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A5- Analysis of Heterogeneous Effects of Education for the Dependent Variable on having a national healthcare user number

VARIABLES	(1) Basic	(2) Interaction term	(3) Network	(4) Having a Health Visa	(5) Migrant Controls	(6) Household + Migrant Controls
YSM	0.087*** (0.010)	0.099*** (0.023)	0.101*** (0.023)	0.100*** (0.023)	0.086*** (0.023)	0.084*** (0.024)
YSM_SecondaryEduc		-0.016 (0.026)	-0.017 (0.026)	-0.017 (0.026)	-0.009 (0.026)	-0.008 (0.026)
AtLeast_CompletedSecondaryEduc		0.186** (0.083)	0.190** (0.083)	0.192** (0.083)	0.164* (0.086)	0.165* (0.086)
Dest_Network			0.009 (0.010)	0.009 (0.010)	0.003 (0.014)	0.012 (0.016)
Health_Visa				0.015 (0.062)	-0.016 (0.064)	-0.026 (0.064)
Need					0.129*** (0.034)	0.131*** (0.034)
Female					-0.006 (0.033)	-0.006 (0.033)
Age					-0.002 (0.003)	-0.002 (0.003)
Employed					-0.018 (0.034)	-0.019 (0.034)
Living_Alone					-0.032 (0.052)	-0.075 (0.061)
Female_hh						-0.039 (0.045)
Secondary_hh						-0.017 (0.037)
Employed_hh						-0.031 (0.043)
Constant	0.472*** (0.032)	0.331*** (0.074)	0.309*** (0.078)	0.307*** (0.079)	0.352*** (0.123)	0.403*** (0.132)
Observations	817	811	811	811	811	811
R-squared	0.074	0.086	0.087	0.087	0.106	0.107

Notes: Estimation was made using OLS in column (1) - (6); The outcome of interest is Health_Number (migrant has the national health number=1). Years since Migration (YSM) measures the duration of the migrant in the destination country. YSM_SecondaryEduc is the interaction variable between YSM and having at least secondary education. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (females_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh =1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A6 - Analysis of Heterogeneous Effects of Gender for the Dependent Variable on satisfying the need of accessing healthcare

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	Basic	Interaction term	Network	Having a Health Visa	Migrant Controls	Household + Migrant Controls
YSM	0.040*** (0.015)	0.051* (0.029)	0.050* (0.030)	0.050* (0.029)	0.051* (0.029)	0.047 (0.030)
YSM_Female		-0.015 (0.034)	-0.015 (0.034)	-0.015 (0.034)	-0.016 (0.034)	-0.008 (0.035)
Female		0.035 (0.104)	0.034 (0.104)	0.026 (0.104)	0.025 (0.105)	0.002 (0.106)
Dest_Network			-0.009 (0.015)	-0.008 (0.015)	0.003 (0.020)	-0.010 (0.023)
Health_Visa				0.094 (0.067)	0.092 (0.074)	0.113 (0.074)
Age					0.000 (0.003)	0.000 (0.003)
AtLeast_CompletedSecondaryEduc					0.036 (0.058)	0.036 (0.059)
Employed					-0.028 (0.049)	-0.029 (0.049)
Living_Alone					0.061 (0.071)	0.115 (0.086)
Female_hh						0.100 (0.066)
Secondary_hh						-0.025 (0.053)
Employed_hh						0.034 (0.063)
Constant	0.538*** (0.047)	0.512*** (0.087)	0.532*** (0.094)	0.525*** (0.093)	0.479*** (0.160)	0.431** (0.167)
Observations	476	476	476	476	472	472
R-squared	0.014	0.015	0.015	0.019	0.021	0.027

Notes: Estimation was made using OLS in column (1) - (6); The outcome of interest is Satisfy_Need (a dummy variable that takes the value of 1 if the migrant satisfied the need to access healthcare and 0 if the need was not satisfied). Years since Migration (YSM) measures the duration of the migrant in the destination country. YSM_Female is the interaction variable between YSM and gender. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (females_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A7- Analysis of Heterogeneous Effects of Education for the Dependent Variable on satisfying the need of accessing healthcare

VARIABLES	(1) Basic	(2) Interaction term	(3) Network	(4) Having a Health Visa	(5) Migrant Controls	(6) Household + Migrant Controls
YSM	0.040*** (0.015)	0.034 (0.029)	0.033 (0.029)	0.034 (0.029)	0.036 (0.029)	0.034 (0.029)
YSM_SecondaryEduc		0.008 (0.034)	0.009 (0.034)	0.008 (0.034)	0.006 (0.034)	0.010 (0.034)
AtLeast_CompletedSecondaryEduc		-0.010 (0.113)	-0.012 (0.113)	0.010 (0.115)	0.017 (0.119)	0.006 (0.118)
Dest_Network			-0.007 (0.015)	-0.006 (0.015)	0.003 (0.020)	-0.011 (0.023)
Health_Visa				0.096 (0.071)	0.092 (0.074)	0.114 (0.074)
Female					-0.016 (0.047)	-0.020 (0.048)
Age					-0.000 (0.003)	0.000 (0.003)
Employed					-0.028 (0.049)	-0.028 (0.049)
Living_Alone					0.060 (0.071)	0.114 (0.086)
Female_hh						0.103 (0.065)
Secondary_hh						-0.027 (0.053)
Employed_hh						0.034 (0.063)
Constant	0.538*** (0.047)	0.544*** (0.098)	0.562*** (0.105)	0.531*** (0.109)	0.526*** (0.164)	0.473*** (0.173)
Observations	476	472	472	472	472	472
R-squared	0.014	0.015	0.015	0.019	0.021	0.027

Notes: Estimation was made using OLS in column (1) - (6); The outcome of interest is Satisfy_Need (a dummy variable that takes the value of 1 if the migrant satisfied the need to access healthcare and 0 if the need was not satisfied). YSM_SecondaryEduc is the interaction variable between YSM and having at least secondary education. Destination Network is measured as the size of the members in the household in the destination country. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (females_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A8 - Heckman Selection model (on having a national healthcare user number)

```

Heckman selection model -- two-step estimates      Number of obs      =      570
(regression model with sample selection)           Selected         =      469
                                                    Nonselected       =      101

                                                    Wald chi2(11)      =      37.32
                                                    Prob > chi2        =      0.0001

```

		Coefficient	Std. err.	z	P> z	[95% conf. interval]	
Health_Number							
	YSM	.073514	.0135249	5.44	0.000	.0470057	.1000222
	Dest_Network	.0218374	.0189871	1.15	0.250	-.0153767	.0590515
	Health_Visa	-.0819153	.0695005	-1.18	0.239	-.2181338	.0543033
	Female	-.0209528	.0415337	-0.50	0.614	-.1023573	.0604518
	Age	-.0030348	.0028623	-1.06	0.289	-.0086447	.0025751
AtLeast_CompletedSecondaryEduc		.041338	.0516379	0.80	0.423	-.0598704	.1425463
	Employed	-.0434363	.042782	-1.02	0.310	-.1272875	.0404149
	Living_Alone	-.0170943	.0754419	-0.23	0.821	-.1649576	.130769
	Female_hh	-.0281684	.0565671	-0.50	0.619	-.1390379	.0827011
	Secondary_hh	.008581	.045781	0.19	0.851	-.081148	.0983101
	Employed_hh	-.020856	.0549859	-0.38	0.704	-.1286264	.0869144
	_cons	.7169776	.1417667	5.06	0.000	.43912	.9948351
Needd							
	Health_Status	-.3436658	.0801795	-4.29	0.000	-.5008146	-.1865169
	Limitations	-.2269933	.1117738	-2.03	0.042	-.4460658	-.0079207
	_cons	2.79129	.3889066	7.18	0.000	2.029047	3.553533
/mills							
	lambda	-.2218687	.166051	-1.34	0.182	-.5473227	.1035853
rho							
	rho	-.051127					
sigma							
	sigma	.43395509					

Table A9 - Heckman Selection Model (on satisfying the need of accessing healthcare)

```

Heckman selection model -- two-step estimates      Number of obs      =      570
(regression model with sample selection)           Selected          =      469
                                                    Nonselected        =      101

                                                    Wald chi2(11)      =      14.85
                                                    Prob > chi2        =      0.1893

```

		Coefficient	Std. err.	z	P> z	[95% conf. interval]	
Satisfy_Need							
	YSM	.0409238	.0153349	2.67	0.008	.0108679	.0709796
	Dest_Network	-.0147241	.0214968	-0.68	0.493	-.056857	.0274088
	Health_Visa	.1121674	.0797251	1.41	0.159	-.0440909	.2684258
	Female	.0011471	.0470161	0.02	0.981	-.0910028	.093297
	Age	.0011426	.0032814	0.35	0.728	-.0052889	.0075741
AtLeast_CompletedSecondaryEduc		.0192286	.058856	0.33	0.744	-.0961269	.1345842
	Employed	-.0446166	.048628	-0.92	0.359	-.1399257	.0506926
	Living_Alone	.1165889	.0858895	1.36	0.175	-.0517514	.2849292
	Female_hh	.108936	.0643338	1.69	0.090	-.0171559	.235028
	Secondary_hh	-.0289657	.0520147	-0.56	0.578	-.1309127	.0729813
	Employed_hh	.0358873	.0625642	0.57	0.566	-.0867363	.158511
	_cons	.299945	.1629452	1.84	0.066	-.0194218	.6193118
Needd							
	Health_Status	-.3436658	.0801795	-4.29	0.000	-.5008146	-.1865169
	Limitations	-.2269933	.1117738	-2.03	0.042	-.4460658	-.0079207
	_cons	2.79129	.3889066	7.18	0.000	2.029047	3.553533
/mills							
	lambda	.4508666	.1992889	2.26	0.024	.0602676	.8414657
rho		0.83193					
sigma		.54195384					

Table A10 - Effect of Years Since Migration (YSM) on having a national healthcare user number with the independent variable Number_ArrivedBef

VARIABLES	(1) Basic	(2) Network	(3) Having a Health Visa	(4) Migrant Controls	(5) Household + Migrant Controls
YSM	0.146*** (0.027)	0.145*** (0.027)	0.145*** (0.027)	0.129*** (0.028)	0.128*** (0.028)
YSM_Squared	-0.010** (0.004)	-0.010** (0.004)	-0.010** (0.004)	-0.008** (0.004)	-0.008** (0.004)
Number_ArrivedBef		-0.005 (0.009)	-0.006 (0.009)	-0.007 (0.010)	-0.004 (0.011)
Health_Visa			-0.048 (0.061)	-0.023 (0.064)	-0.028 (0.064)
Need				0.123*** (0.034)	0.124*** (0.034)
Female				-0.002 (0.033)	-0.003 (0.033)
Age				-0.002 (0.002)	-0.002 (0.003)
AtLeast_CompletedSecondaryEduc				0.139*** (0.042)	0.141*** (0.043)
Employed				-0.029 (0.034)	-0.029 (0.034)
Living_Alone				-0.052 (0.041)	-0.088 (0.059)
Female_hh					-0.021 (0.043)
Secondary_hh					-0.014 (0.036)
Employed_hh_					-0.019 (0.042)
Constant	0.407*** (0.045)	0.415*** (0.046)	0.417*** (0.046)	0.343*** (0.097)	0.384*** (0.110)
Observations	817	817	817	811	811
R-squared	0.079	0.079	0.080	0.109	0.110

Notes: Estimation was made used OLS in column (1) - (5); The outcome of interest is Health Number (migrant has the national health number=1). Years since Migration (YSM) measures the duration of the migrant in the destination country. Number_ArrivedBef is measured as the size of the members in the household in the destination country that arrived before the migrant. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (Female_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1

Table A11 - Effect of Years Since Migration (YSM) on satisfying the need of accessing healthcare with the independent variable Number_ArrivedBef

VARIABLES	(1) Basic	(2) Network	(3) Having a Health Visa	(4) Migrant Controls	(5) Household + Migrant Controls
YSM	0.105** (0.053)	0.111** (0.053)	0.112** (0.052)	0.114** (0.053)	0.114** (0.054)
YSM_Squared	-0.011 (0.008)	-0.011 (0.008)	-0.012 (0.008)	-0.012 (0.008)	-0.012 (0.008)
Number_ArrivedBef		0.014 (0.014)	0.015 (0.014)	0.023 (0.015)	0.018 (0.016)
Health_Visa			0.100 (0.067)	0.096 (0.074)	0.108 (0.075)
Female				-0.009 (0.047)	-0.012 (0.048)
Age				0.000 (0.003)	0.000 (0.003)
AtLeast_CompletedSecondaryEduc				0.038 (0.059)	0.041 (0.059)
Employed				-0.028 (0.049)	-0.029 (0.049)
Living_Alone				0.078 (0.056)	0.114 (0.084)
Female_hh					0.067 (0.064)
Secondary_hh					-0.029 (0.052)
Employed_hh_					0.013 (0.063)
Constant	0.460*** (0.079)	0.437*** (0.081)	0.424*** (0.081)	0.384*** (0.146)	0.344** (0.164)
Observations	476	476	476	472	472
R-squared	0.018	0.020	0.024	0.030	0.033

Notes: Estimation was made used OLS in column (1) - (5); The outcome of interest is Satisfy_Need (a dummy variable that takes the value of 1 if the migrant satisfied the need to access healthcare and 0 if the need was not satisfied). . Years since Migration (YSM) measures the duration of the migrant in the destination country. Number_ArrivedBef is measured as the size of the members in the household in the destination country that arrived before the migrant. Migrants' Controls include having a health visa, needing to access health in the past 12 months, gender (female=1), age, education (more or equal than 12 years of education = 1), if the person is employed (employed = 1) and if the migrant lives alone (Living_Alone =1). Household Control variables include having at least one female in the household (Female_hh =1), having at least one member with more than secondary education (Secondary_hh =1) and if members are employed (Employed_hh = 1). Robust standard errors in parentheses, *** p<0.01, ** p<0.05, * p<0.1