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Migrants and access to health care in Costa Rica

Koen Voorend [a], Arjun S. Bedi [b,*], Rebeca Sura-Fonseca [c]

[a] Institute of Social Research & School of Communication, University of Costa Rica, Costa Rica
[b] International Institute of Social Studies, Erasmus University Rotterdam, The Netherlands
[c] University of Costa Rica, Costa Rica

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ABSTRACT

As in most immigrant-receiving countries in the global North, countries in the South face challenges regarding migrant access to social rights and the effect of migrants on the sustainability of the welfare state. In the Latin American context, this holds especially for countries such as Costa Rica, which has one of the strongest social policy regimes in the South and the highest (Nicaraguan) immigrant stock in Latin America. Set in the context of Costa Rica, this paper assesses two views which seem hard to reconcile, and, are common in the country. First, it is claimed that Nicaraguan migrants use public health services disproportionately, thereby threatening the country's welfare system. Second, pro-migrant rights non-governmental organizations and academics are concerned, primarily based on qualitative studies, that access to health services for Nicaraguan immigrants is limited, and that they are discriminated based on nationality. This paper relies on administrative data and a unique data set representative of Nicaraguan born individuals residing in Costa Rica to examine the validity of both these claims. We do not find support for either. The incidence of migrant health care use is lower than their share in the population and at the same time there is no evidence of discrimination in health care access for migrants based on their nationality. The paper underlines the need for more informed migration debates.

1. Introduction

The incorporation of immigrants in social services is polemic, in most, if not all host countries. Recently, in the United States, France, The Netherlands, Germany, and Spain, the extension of social rights to migrants, and their claim to public welfare benefits has been prominently politicized in elections, with welfare chauvinism being fueled by welfare magnet arguments.[1]

Indeed, there is a large body of literature, especially from Europe, which has focused on the extension of social rights to migrants and which compares migration policy and the different types of membership regimes with regard to social rights (Bommes and Geddes, 2000; Castles & Miller, 2009; Lucassen, 2016; Papadopoulos, 2011; Schierup, Hansen, & Castles, 2006). This literature compares differences in welfare status (poverty, employment, social benefits) between migrants and nationals in different countries (Carmel et al., 2011; Castles & Miller, 2009; Koopmans, 2010; Zrinščak, 2011), and points to the existence of variations with regard to migrant integration between countries (Castles & Miller, 2009; Freeman and Mirilovic, 2016; Morissens & Sainsbury, 2005). There is also a related body of work that focuses not just on migrant access but also assesses the impact of migration on the financial, social and political stability of social policy arrangements focusing on the question of how increasing diversity and multicultural influences affect solidarity for and the sustainability of the welfare state. The debate here is on the trade-off between diversity and solidarity, under the assumption that immigration undermines the basis of a comprehensive and solidaristic welfare state (Banting & Kymlicka, 2006; Crepaz, 2016; Facchini, Mayda, & Murard, 2016; Freeman and Mirilovic, 2016; Soroka, Harrel, & Iyengar, 2016; Van Oorschot, 2008). Recently, this literature has also focused on state reactions to migrant integration in light of growing security concerns in Europe (Caponio & Graziano, 2011; Carmel, 2011; Lahav & Perliger, 2016).

Similar concerns regarding migrant access to social rights and the effect of migrants on the sustainability of the welfare state are also emerging in countries in the global South, especially in Argentina, Chile and Costa Rica which have long standing social

* Corresponding author at: International Institute of Social Studies, Erasmus University Rotterdam, Kortenaerkade 12, 2518 AX The Hague, The Netherlands.
E-mail address: bedi@iss.nl (A.S. Bedi).

[1] The welfare magnet argument is that migrants choose their destination based on social welfare benefits and that they tend to cluster in countries or states with higher benefits. Evidence on whether this is indeed the case is inconclusive (Giulietti and Wahba, 2012; Van Oorschot, 2008).

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policy traditions. Costa Rica, which is the focus of this paper, is an example of a country, which has one of the strongest social policy regimes in the South. At the same time, it has the highest immigrant stock in Latin America, about 9% (United Nations (UN). (2017) (UN) (2017); Nacional (INEC) (2011))[2] and as such, it represents a noteworthy case which may speak to the international literature and inform debates on migrant integration into welfare arrangements.

Within Costa Rica there are two views which seem hard to reconcile. On the one hand, there is a tenacious belief that Nicaraguan migrants are overrepresented as users of public health services (Bonilla-Carrión, 2007; Dobles, Vargas, & Amador, 2013; Voorend, 2014), thereby posing a risk to the country's social security institution, the *Caja Costarricense del Seguro Social* (Bonilla-Carrión, 2007; González & Varela, 2003; Voorend, 2016a). On the other hand, pro-migrant rights NGOs and academics worry, primarily based on qualitative studies and anecdotal evidence, that access to health services for Nicaraguan immigrants is limited, and that there is discrimination at play based on nationality.

Indeed, such views are similar in many other migrant-receiving countries, both in the global North and South. However, empirical evidence to confirm or contest whether migrants are overrepresented as users of social services, and whether there is discrimination based on ethnicity, race, nationality or other characteristics, is limited, especially for countries in the South. Furthermore, most existing research is qualitative in nature, and tends to focus on formal entitlements and social policy eligibility and not actual access to services (Morissens & Sainsbury, 2005; Morissens, 2008; Sainsbury, 2006; Voorend, 2016a).[3]

This paper uses data from Costa Rica to empirically assess both claims – that is, are (Nicaraguan) migrants overrepresented in terms of usage of health care and second, whether they are denied access to health care services? The decision to focus on Nicaraguan migrants is motivated by their high share in the total migrant population (75%) and their considerable share in the national population (7%). The focus on health services is motivated by several considerations. First, because the healthcare sector is the flagship of Costa Rica's "exceptional" universal social policy regime. Second, unlike pensions or basic education, healthcare is required throughout a person's life, and unlike family transfers or other focalized social services, it is required across class, race and ethnicity. Third, because healthcare implies a day-to-day interaction between migrant populations and state institutions, migrant incidence is most visible in this sector. Fourth, and because nationals also use these services, it is here where the tension between migration and social policy is most obvious. Indeed, Goldade (2011) argues that in healthcare, because of the *ius soli* (birth right) citizenship model, the struggle over inclusion in the Costa Rican state is most obvious. Finally, given the CCSS's financial difficulties, migrant claims to health services have become even more polemic.

The paper contains several novel elements. First, we focus on South-South migration while the bulk of the work is on South-North migration. Second, we go beyond formal entitlements to analyze migrants' actual access to health services and third, rather than relying on qualitative data or anecdotal evidence we use quantitative data – both, administrative and a primary survey to assess the two issues under scrutiny. To analyze the first issue we use administrative data on healthcare usage and to examine variations in access to health services between migrants and nationals we draw on a unique, purposively collected dataset.

The following section outlines the context. Section 3 discusses the data while Section 4 outlines the empirical approach. Section 5 presents the results while the final section provides a discussion and offers some concluding remarks.

2. Costa Rica's health care system and the influx of migrants

Costa Rica provides a unique context to study immigrant incorporation in social services in the global South. Despite austerity pressures, since the 1980s, Costa Rica still has one of the most inclusive social policy regimes in the continent (Martínez Franzoni, 2008). With relatively high social spending per capita (CEPAL, 2018), Costa Rica distinguishes itself from other countries in that social services are provided to a much larger section of the population, including the middle class and the non-salaried population.[4]

Specifically, with regard to health care, Costa Rica has an extensive, publicly provided and publicly financed healthcare system. In 1993, the country integrated its social security program with the Ministry of Health resulting in a single-payer model managed by the social security program and financed by employers, employees, and the state with subsidies for the poor. The main provider of health services, the *Caja Costarricense del Seguro Social* [Costa Rican Social Security Fund] (CCSS), is the monopoly public institution in charge of social security in Costa Rica and manages the provision and structure of public healthcare. Currently, it covers about 87% of the Costa Rican population through its health insurance. This health insurance, known as the *seguro social*, is exclusively issued by the CCSS, and is needed in order to access Costa Rica's healthcare system. It is paid for through payroll taxes but is also accessible to independent workers and informal sector workers who may be voluntarily insured. For such individuals, their insurance premium is based on their occupation. There are several different ways of acquiring health insurance (through salaried work, independent and voluntary insurance, family insurance and special protection schemes), most of which require legal migratory status. Fig. 1 displays the different health insurance categories.

Despite its inclusivity, since the 1980s, in a context of weakening public social policy provision, following structural adjustment, the incorporation of immigrants, especially Nicaraguan, into the health system has been contested (Sandoval, 2007; Voorend, 2016a). Indicative of this weakening is, for example, the stagnation of per capita public social expenditure dedicated to healthcare which remained at about US$ 120 between the early 1980s well into the 2000s, in real terms, a reduction in spending. While mortality or morbidity indicators have not yet been affected, there are signs of the effects this has had on healthcare provision. For example, health insurance coverage among salaried workers was highest at just under 80% before the crisis but declined through the 80 s and 90 s to around 65% in 2005 (Voorend, 2016a). Between 2000 and 2013, the number of doctors per 1,000 inhabitants fell from 1.33 to 1.11 (CEPAL, 2016).

An additional indication of the erosion of the universal public health system has been the increase in the private provision of healthcare. While public healthcare spending grew annually at 5% between 1991 and 2001, private spending increased by 8% on average (Picado, Acuña, & Santacruz, 2003). Between 2000 and 2009, the share of private healthcare spending (composed of out-of-pocket expenditures and private insurance expenditures) in

[2] This excludes non-Spanish Belize (16%), the Falkland Islands (54.3%) and French Guiana (39.5%) (UN, 2017).

[3] In Costa Rica in particular, most of what we know on how migrants relate to social services is based on qualitative work (López, 2012; Fouratt, 2014; Voorend, 2013, 2014, 2016a; Goldade, 2009, 2011; Spesny Dos Santos, 2015; Dobles et al., 2013).

[4] In 2016, per capita social spending was US$1,176, which is substantially higher, as compared to the average for Latin American and Central American countries, US$ 918 and 382, respectively (CEPAL, 2018).

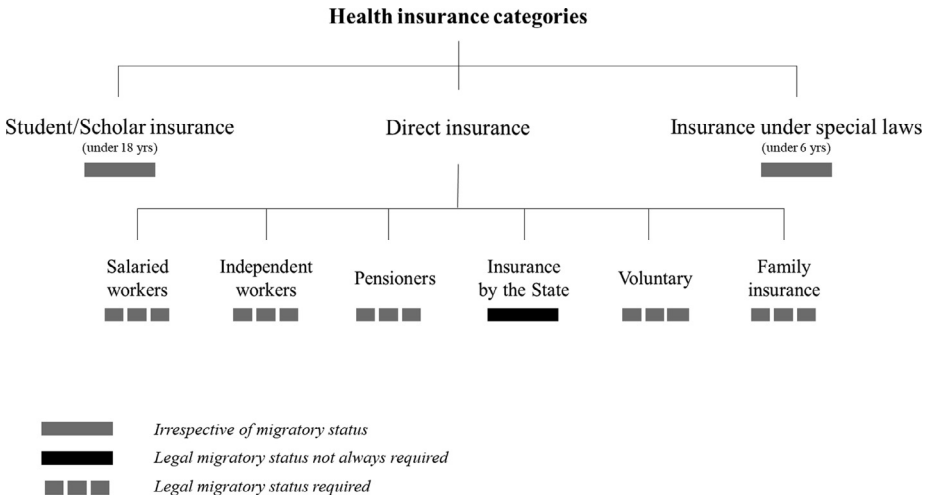

Fig. 1. Healthcare insurance in Costa Rica's social security system. Notes: There is universal insurance coverage for minors under 6 years of age and for students in the age group 6 – 18, regardless of migratory status. Direct insurance covers salaried workers (formal employment), independent workers and pensioners. The insurance by the state category consists of a direct (means-tested) non-contributory insurance for those under the poverty line, and also provides coverage for emergency health services for irregular migrants. Other categories of direct insurance are those without formal employment who apply for voluntary insurance. Finally, there is the possibility of indirect or family insurance, which may be extended to family members of any person with direct insurance. However, that person must be a Costa Rican national or have regular migratory status. *Source*: Own elaboration based on Voorend (2016a,2016b).

total healthcare spending increased from 23% to 33% (Martínez Franzoni & Sánchez-Ancochea, 2013), mostly driven by middle and upper-middle income groups. Of similar importance, mostly qualitative work has shown that waiting lists to see doctors and obtain specialized medical attention are longer, and there is a growing dissatisfaction with public healthcare services (Dobles et al., 2013; Martínez Franzoni, 2006).

In terms of the link to migration, the deterioration of public services and cutbacks in public investment "are usually represented [...] as a result of Nicaraguans' migration to Costa Rica" (Sandoval, 2007: 444). Immigration peaked in the 90 s, just when Costa Rica was adopting new measures of economic liberalization in the aftermath of the 1980 s debt-crisis. Between 1984 and 2000, the immigrant population in Costa Rica grew at an average annual rate of 7.5%, most of it due to the influx of Nicaraguans (Nacional (INEC), 1984, 2000). Between 2000 and 2011, the migrant population in Costa Rica grew annually by 2.4% on average (Nacional (INEC), 2000, 2011). Currently, migrants represent about 9% of the total population, the highest rate in Latin America (Noy & Voorend, 2016).

Tensions about migrant incorporation rose when the international financial crisis that erupted in 2008 slowed down Costa Rica's economy, leading almost immediately to a rise in the unemployment rate from 4.9% to 7.8% between 2008 and 2009 (Voorend & Robles Rivera, 2011), reaching 8.5% in 2013 (Nacional, 2013), and 9.2% at the end of 2015 (Nacional (INEC), 2015). Soon after, in 2011, partly induced by the economic slowdown but more importantly by an increase in payroll costs, corruption and mismanagement (PAHO (Panamerican Health Organization), 2011; Carrillo, Martínez Franzoni, Naranjo, & Sauma, 2011), the CCSS found itself in a financial crisis that put into question the sustainability of the institution (Carrillo et al., 2011).

In public opinion, Nicaraguan migrants are especially blamed for the general demise of public social services (Dobles et al., 2013; Goldade, 2009; González & Varela, 2003), particularly healthcare, and the more recent financial difficulties of the *Caja Costarricense del Seguro Social* (CCSS) (Bonilla-Carrión, 2007; Voorend, 2016a). Amongst at least three quarters of the Costa Rican population there is a tenacious belief that migrants pose a risk to the country's social security (González & Varela, 2003). Costa Ricans perceive that Nicaraguans are more likely to make use of public social services because of their lower social levels and their 'illegality' (Bonilla-Carrión, 2007: 146), and are assumed to be overrepresented as users of these services, especially healthcare (Voorend, 2013).

At the same time, academia and civil society organizations, such as the Jesuit Service for Migrants, have counterargued that migrants' access to health services is anything but straightforward, pointing at the difficulties of acquiring health insurance (Fouratt, 2014; IIS, 2012; López, 2012) buttressed by qualitative and anecdotal evidence of discrimination based on nationality (Fouratt & Voorend, 2018; Goldade, 2009; Dos Santos, 2015). Based on ethnographic work, Dos Santos (2015: 7) argues that "the 'national' versus 'migrant' are often more determinant than 'insured' versus 'uninsured'". Similarly, Fouratt and Voorend (2018:458) document accounts of "subtle and less subtle forms of discrimination and exclusion", even among "legal" migrants seeking medical attention. Several studies confirm that women are more likely than men to experience situations of discrimination (Fouratt and Voorend, 2018; Goldade, 2009).

Such claims exist despite Costa Rica's recent explicit legal commitment to human rights and the recognition that the integration of immigrants is beneficial to the country's development. A migration law which was approved in August 2009 and came into effect in March 2010, makes multiple references to international human rights and for the first time, commits the state to immigrants' social inclusion (Fouratt, 2014; López, 2012) "based on principles of respect for human rights; cultural diversity; solidarity; and gender equity" (Law 8764, art. 3). In that respect, in contrast with laws in most of the rest of the continent, the law and the institutional framework in charge of its implementation and adherence explicitly focus on social integration.

However, despite this notable reorientation from previous punitive laws, more critical analyses of the Law have raised concerns over how the "rhetoric of integration serves to legitimize [...] a number of troubling elements" (Fouratt, 2014: 166) related to the persistent securitization of migration (Fouratt, 2014; Kron, 2011), such as increased authority and autonomy for the Migration

Police and the possibility of repressive measures such as long detentions (Sandoval, 2012). Important for this paper are the criticism of the high costs migrants are faced with when obtaining the necessary documentation for a prolonged regular stay in Costa Rica (IIS, 2012; Fouratt, 2014; Voorend, 2014; Sandoval, 2012), and that the law stipulates affiliation to Costa Rica's social security system as a pre-requisite for starting the regularization process while one needs to have a regular migratory status to obtain the health insurance slip (Fouratt, 2014; Voorend, 2013). This is a Catch-22 situation which is difficult for irregular (those without clear entry and residence documents) migrants to negotiate (Voorend, 2013). In part, as a consequence of such practices, the share of Nicaraguan migrants covered by insurance is far lower as compared to the native population (see Table 2 in Section 3.2).

Set against this background, the following section describes the data that we use to assess whether migrants are overrepresented as users of health services, and whether they are discriminated on the basis of their nationality. Before proceeding it is important to clarify that we restrict our analysis to discrimination in terms of access to health care services and do not deal with other forms of discrimination which may arise when migrants seek health care such as the quality of treatment (for instance, time to see a health care provider, time spent with a health care provider, bedside manner of the health care provider).

3. Data

3.1. Data sources

To analyze the two issues at hand, we use two different data sources. First, to analyze whether (Nicaraguan) migrants make disproportionate use of health services, we work with administrative data acquired from the CCSS. Second, to analyze differences in access to health care use between migrants and nationals, we use purposively collected primary survey data.

3.2. Administrative data

The administrative data was obtained from the Health Statistics Area of the CCSS. Specifically, we collate information on the use of medical services (hospitalizations, consultations and emergency attention) from various editions of the statistical yearbooks. We provide information over the period 2000 to 2011 as information on the share of the migrant population in the country is available from Census date for 2000 and 2011. These data only allow us to evaluate differences in health care use between nationals and foreigners and not specifically consider use by Nicaraguan migrants. However, in 2006, the CCSS published data that supports a more detailed analysis of health service use by nationality and pathologies. We also use these data to assess the incidence of health care use.

3.3. Survey data

A tailor-made survey was undertaken to examine Nicaraguan migrants' access to social services in Costa Rica.[5] The data were collected between August and December 2013 and will be referred to as the Migration and Social Policy database - MISOC (2013). Data were collected from across the country and the sample was designed to be representative of Nicaraguan born individuals residing in Costa Rica.

Table 1
Comparison of means between census and MISOC (Std. Dev.).

Variables		Nicaraguans	
		2011 Census	2013 MISOC
N		*287,766*	*394*
Age	Age of respondent	33.38 (15.79)	39.70 (13.54)
Marital Status of respondent	Married (%)	22.7	30.26
	Single (%)	27.8	22.56
	Cohabitation (%)	36.8	41.03
	Divorced (%)	1.2	3.08
	Widowed (%)	2.0	3.08
Head of Household (HH)	Sex of the HH - Male (%)	48.1	50.86
	Age of HH	33.06 (14.98)	41.66 (12.79)
Children	Number of children in the household	1.27 (2.15)	2.84 (2.03)
Education	Formal education in years HH	6.34 (4.04)	6.76 (3.56)
Work	Respondent performed paid work (%)	53.85	61.93
Period of arrival of respondent to CR	Before 1970	3.0	3.58
	Between 1970 and 1979	4.5	5.37
	Between 1980 and 1989	10.1	10.23
	Between 1990 and 1999	36.1	45.78
	Between 2000 and 2009	38.2	31.20
	Between 2010 and 2011/2013	8.2	3.84

Source: Own elaboration based on Nacional (INEC) (2011) and MISOC (Migration and Social Policy Database) (2013).

Furthermore, to promote comparisons, Costa Ricans with similar socio-economic characteristics were included in the sample. The survey covered 795 respondents – 394 Nicaraguan immigrants and 401 Costa Rican nationals.[6]

To ensure that the sample was nationally representative of the Nicaraguan population in the country, the districts to be surveyed were identified on the basis of "probability proportional to size" (PPS). That is, the probability of selecting a district was proportional to the size of the Nicaraguan born population residing in the district.[7] Based on pragmatic considerations, mainly financial, 20 districts were selected and within these districts 50 Primary Sampling Units (PSU) each with approximately 100–200 houses were randomly selected. In each of these 50 PSU a total of 8 Nicaraguan born and 8 Costa Rican born persons were randomly surveyed. PPS combined with sampling the same number of individuals per PSU, implies that Nicaraguan migrants in the population had the same probability of being sampled.[8]

In order to enhance comparisons between migrants and natives, we gathered information on Costa Rican born individuals living in the same neighbourhoods as the Nicaraguan migrants. Since both groups are drawn from relatively small areas that contain around 100–200 houses, this approach is expected to minimize differences in socio-economic traits between Nicaraguan born and Costa Rican born populations. Given the objectives of the paper and the nature

[5] A tailor-made survey was needed as existing data sources such as the National Household Surveys and the 2011 National Census have limited information on migrant status and access to social services and are not specifically aimed at understanding migrants' access to social services. Where possible we do use these alternative data sources.

[6] Sample size was based on a power of 0.8, a 95% confidence level and a small effect size (Cohen's *d*) of *d*=0.2. Based on these assumptions, the sample size for the "treatment group" of Nicaraguan immigrants and "control group" of Costa Rican born individuals was 393 each.

[7] Information on the share of the Nicaraguan born population in a district was obtained from the 2011 National Census.

[8] Details on the sampling procedures are available in Voorend (2016a).

Table 2
Health insurance status.

Type of insurance (%)	2011 Census		2013 MISOC	
	Costa Ricans	Nicaraguan immigrants	Costa Ricans	Nicaraguan immigrants
Salaried Workers	22.3	27.4	18.86	18.78
Independent & Voluntary	8.7	9.6	11.17	10.91
RNC Pensioners[1]	1.3	0.4	0.99	0.00
IVM Pensioners[2]	4.8	1.3	11.41	2.03
Family insurance	41.4	22.8	30.52	23.60
Insurance by the State	7.9	3.0	7.44	2.54
Other[3]	0.7	0.6	3.47	1.02
No insurance	12.9	34.8	16.13	41.12
N	*3,915,813*	*287,766*	*403*	*394*

Notes: [1] Non-contributory pension; [2] Insurance for disability, old age and death; [3] The "other" category includes several types of insurance including insurance under special laws and student Insurance.
Sources: Own elaboration based on Nacional (INEC) (2011) and MISOC (Migration and Social Policy Database) (2013).

of the sampling the Costa Rican born population is not representative of Costa Ricans but a sample of Costa Ricans who are expected to be observationally closer and have similar socio-economic traits to the Nicaraguan born population.

From the respondents, the survey gathered information on both individual and household traits including demographic characteristics, education, occupation, income category, access to social services, and most notably a series of migration-related questions including access to social services before migrating, reasons for migrating, year of migration, reasons for choosing Costa Rica as a destination, and legal status in the country. While we use both the individual and household information provided by the respondents, to clarify, specifically, in the case of the forthcoming econometric analysis we rely on access to insurance, health care and medicine for the respondent. Most of the independent variables also refer to the respondent except for variables such as household size and children under 6.

As discussed above, the data were collected with a two-fold aim. First, the sample of Nicaraguan respondents should be representative of the Nicaraguan population residing in Costa Rica. This aspect of the data supports external validity. Second, the sample of Nicaraguan and Costa Rican respondents should be observationally similar as this supports identification of the effect of being a Nicaraguan migrant after controlling for other traits (e.g., education, occupation and wealth, insurance status) which may have a bearing on access to health care. The subsequent paragraphs examine whether these two aims have been met.

3.4. Descriptive statistics - comparison with Census data

Tables 1 and 2 provide descriptive statistics obtained from the MISOC survey with data from a census conducted in 2011. The census contained some information on Nicaraguan migrants which enables a comparison of the information obtained from these two sources. As is evident from Table 1, there are differences, on several dimensions, such as age group distributions, marital status, age and sex of the household head and number of children. Households heads in the MISOC survey tend to be older (40 versus 33 years), and family size tends to be larger (2.84 versus 1.27 children). There are almost no differences in educational attainment across data sources (6.76 versus 6.34). While the two groups differ in terms of some socio-economic traits what is perhaps notable and most relevant for the purposes of this paper, is that the census and the MISOC survey provide a similar picture of health insurance status. For instance, according to MISOC data, 41 percent of Nicaraguan immigrants do not have access to insurance while the figure based on Census data is about 35 percent. Similarly, based on MISOC data, 24 percent of Nicaraguans have family insurance while the corresponding figure from the census is 22.8 percent. Thus, for the most important outcome variable the two data sources tend to yield similar information, which strengthens the idea that the MISOC data are representative and that results based on the MISOC data are arguably relevant for the Nicaraguan born population in Costa Rica.

3.5. Descriptive statistics – Comparing Nicaraguan and Costa Rican households

Table 3 provides descriptive statistics for both the Costa Rican and Nicaraguan born samples from the MISOC survey. As mentioned above, since the survey was conducted during the day there is a higher proportion of female (72 percent) versus male respondents in the case of both groups. Migrants (respondents) tend to be younger (40 versus 46 years old), have larger families (about five versus four household members), slightly lower levels of educational attainment (four versus five years) and are more likely to work (62 versus 38 percent). However, both groups fall in the same income category and are equally likely to be married or cohabiting (70 percent). Thus, while there are differences between the two groups in terms of some of their socio-economic traits, especially work participation, along several other dimensions they are statistically similar.

Turning to health insurance, Table 2 shows that around 41 percent of migrants do not have coverage. Given the principle of universalism that guides CCSS's health insurance, it may have been assumed that every Costa Rican national is insured. However, the data show that 16 percent of nationals were uninsured in 2013. This is slightly higher than the 12.9 percent reported by the 2011 INEC Census. Given that the Costa Rican sample was selected so as to resemble the poorer socio-economic features of the migrant population and its more informal labor insertion, this is not unexpected. In terms of the type of insurance, in the case of both groups, about 19 percent are directly insured through salaried work. A similar proportion, 11 percent, acquire direct insurance voluntarily. However, a far larger proportion of Costa Ricans are covered due to their status as pensioners (11 versus two percent), by the state (about seven versus three percent) and through family insurance (about 31 versus 24 percent).

The MISOC survey collects some novel information on access to social services prior to migrating and other migration related traits. Responses to these questions (see Table 4) show that only a small proportion of Nicaraguan respondents had access to public health insurance in Nicaragua (about 17 percent), although 86% of respondents had access to healthcare (and hospitals) in Nicaragua.

The decision to migrate is dominated by job related motives. Respondents were asked to list the three main reasons for migrat-

Table 3
Comparison of means – MISOC Data (Std. Dev.)

Variable		Country of birth		
		Costa Rica	Nicaragua	p-values (mean test)
N		403	394	
Sex	Sex respondent - Male (%)	27.79	27.66	0.967
Age	Age respondent	45.89	39.70	0.000
		(17.44)	(13.54)	
Marital status	Marital status respondent			
	Married (%)	44.39	30.26	0.000
	Single (%)	22.44	22.56	0.967
	Cohabitation (%)	16.71	41.03	0.000
	Divorced (%)	8.73	3.08	0.001
	Widowed (%)	7.73	3.08	0.004
Head of Household (HH)	Sex HH - Male (%)	49.14	50.86	0.340
	Age HH	50.40	41.66	0.000
		(15.59)	(12.79)	
Household	Household size - incl. outside CR	3.77	4.65	0.000
		(1.77)	(2.11)	
	Household size - only in CR	2.60	3.09	0.000
		(1.75)	(1.90)	
	No. of children	2.63	2.74	0.492
		(2.33)	(2.22)	
	No. of children under 6	0.26	0.40	0.000
		(0.44)	(0.49)	
	Family type - traditional (%)	35.48	44.67	0.008
	Family type - modified (%)	13.15	25.38	0.000
	Family type - single (%)	27.54	19.80	0.010
Education	Years of education, respondent	4.62	4.25	0.075
		(2.87)	(2.98)	
Work	Respondent performed paid work (%)	38.46	61.93	0.000
	Income cat. working pop. (mean)	2.99	3.05	0.721
		(2.53)	(2.19)	
	Work hours main job (mean)	40.78	45.87	0.000
		(19.88)	(21.36)	
	Worked a second job (%)	32.86	24.67	0.011

Notes: Income is measured in categories given the sensitiveness of this information. The categories of monthly income used are: 1) less than ₡50,000; 2) Between ₡50,001–100,000; 3) Between ₡100,001–150,000; 4) Between ₡150,001–200,000; 5) Between ₡200,001–300,000; 6) Between ₡300,001–400,000; 7) Over ₡400,000. *Source:* Own elaboration based on MISOC (Migration and Social Policy Database) (2013).

ing. The lack of jobs in Nicaragua and the wage difference between Nicaragua and possible destination countries were the most common reasons (50.1 and 47.7%, respectively). About a third mentioned both reasons, and another third mentioned at least one of them. That is, 61% of all migrants named a work-related reason as a primary one. Other reasons were less common, but children's future seems to be quite important in the decision to migrate. In total, about 38% named children's education and 34% mentioned access to better services such as healthcare and education.

With regard to why they chose Costa Rica as a destination country (and not another country), access to social services was *not* important. Only 5.6% mentioned better education in Costa Rica and 3.3% the availability of good hospitals. There were very few cases in which pregnancy and birth were drivers of migration, undermining the *anchor baby* argument that is common in public opinion, as discussed in qualitative studies (Goldade, 2009; Dos Santos, 2015; Voorend and Venegas (2014)). Rather, proximity (43.9%) and consequently the lower expense of migrating to Costa Rica and not the United States for example (11.2%) are the main drivers of migration. Furthermore, networks, such as family or friends in the country (36.3%) are important as well as factors relating to the labor market (24% - job availability −17% and wage differentials – 7%). A number of the responses highlight the importance of existing networks in motivating the migration decision. About 70 percent of the respondents had an existing contact in Costa Rica before migrating and 36 percent mentioned that their existing contact was one of three main reasons motivating their decision to come to the country. After arriving in Costa Rica about 73% received support in cash or in kind, of which 92.5% was provided by friends.

In Costa Rica, there is hardly any knowledge on the exact share of irregular migrants in Costa Rica, and estimates oscillate between 20 and 40 percent of the total migrant population (Karina Fonseca, Director Jesuit Service for Migrants, Personal Communication, March 5, 2013). The MISOC data suggest that 19.8% of Nicaraguans are irregular, 8.9% are on a tourist visa (which expires after 3 months) and another 8.9% are in the process of obtaining documents. In principle, those in the pipeline should not be denied access to social services but in practice it may well be the case (Fouratt, 2014; López, 2012; Voorend, 2016a). Overall, according to our data, about 62 percent of Nicaraguan born migrants have denizenship status, be it through citizenship or a permanent/ temporary residence permit while the remainder do not have clear entry/residence documents.

4. Analytical framework

Our aims are to examine two seemingly contradictory issues, that is, whether there is disproportionate use of health care by (Nicaraguan) migrants and at the same time discrimination in access to health services.

Table 4
Means of selected variables – Nicaraguan sample.

Variable		
Before migrating	Social security in Nicaragua (%)	16.8
	Paid job in Nicaragua (%)	41.9
	Access to hospital (%)	86.0
	Contact in CR (%)	69.0
Reasons for migrating	Lack of jobs in Nicaragua (%)	50.1
	Wage difference (%)	47.7
	Better education for children (%)	37.6
	In need of medical attention (%)	4.7
	Family's access to pub. serv. (incl. health and education) (%)	33.8
	For own education (%)	13.7
	Family reunification (%)	30.5
	Political reasons (%)	19.8
Reasons for choosing Costa Rica as destination	Contact (family/friend) in CR (%)	36.3
	Easier to get paid work (%)	16.5
	Better pay than in Nicaragua (%)	6.9
	Proximity (%)	43.9
	Less expensive than other countries (%)	11.2
	Good healthcare/hospitals (%)	3.3
	Pregnancy, delivery in CR (%)	0.8
	Children education in CR (%)	5.6
	Deported in other country (%)	0.5
Migration Process	Migrated accompanied (%)	58.1
	Received support in CR (%)	72.8
	Possession of legal docs when migrating (%)	68.8
Time exposure in host society	Years in Costa Rica	19.2
	Std. Dev.	*(11.5)*
Legal status in Costa Rica	Citizenship (%)	6.9
	Permanent residence (%)	49.8
	Temporal residence (%)	5.8
	Irregular/'Illegal' (%)	19.8
	Tourist Visa (%)	8.9
	In process (%)	8.9

Source: Authors based on MISOC (Migration and Social Policy Database) (2013).

4.1. Disproportionate use of health services

To analyze whether (Nicaraguan) migrants make disproportionate use of healthcare services, we employ simple incidence analysis. That is, we first assess, over a period of ten years, the share of health service use accruing to nationals versus foreigners as compared to their share in the population. The data at hand support such a simple, although perhaps revealing analysis of use of health services by these two different population groups. To delve deeper we examine the incidence of health resource use by Costa Ricans and Nicaraguans (born in Nicaragua) as compared to their shares in the population for one specific year (2006) where we have information on differences in health care use by different diseases.

4.2. Health care access for Nicaraguan migrants

To identify the effect of being a Nicaraguan migrant on access to Costa Rica's health care system we work with three indicators of access to the social health system (*SHS*). These are (i) whether a respondent has health insurance (*I*) (ii) when in need would a respondent seek health care (*H*) from the CCSS and (iii) when in need would a respondent seek medicine (*Me*) from the CCSS. Costa Rica's laws and regulations stipulate that health insurance is a necessary condition to access public healthcare services. Therefore, we first examine, whether, after controlling for a range of traits, access to health insurance depends on one's nationality. Qualitative (Fouratt, 2014; Goldade, 2009; Voorend, 2016a) and quantitative data analysis (Voorend & Sura-Fonseca, 2019) suggest that health insurance may be an important but is not a sufficient condition for accessing public healthcare services. Therefore, we asked respondents whether, if in need, they would seek healthcare services or medicines from the CCSS. Thus, healthcare and medicine access refers to self-exclusion and may take place regardless of insurance status. It is likely that respondents' perceptions are based on their previous experiences.

Based on our qualitative work and knowledge of the Costa Rican context, these outcomes are treated as a function of range of traits. Most importantly, migration (*M*) related traits which includes nationality – Nicaraguan or Costa Rican, years in Costa Rica and migratory status. Migratory status consists of six indicators which classify respondents as Costa Rican nationals, nationalized migrants, residents (with temporary or permanent residence and work permit), migrants with a tourist visa, migrants whose status is in process, and finally irregular migrants. Other controls include demographic and educational characteristics (*D*) which comprise age, sex, educational attainment, children under 6. The presence of young children (between 0 and 6 years) is expected to enhance access to health insurance and service as children are a protected group in Costa Rica and are expected to be able to access the medical system, irrespective of nationality and migratory status. The specification includes a range of employment/labor market (*LM*) traits which capture the formality of employment (captured by job categories based on ILOs ISCO codes)[9] and labor rights dummy variables, socio-economic attributes (*SES*) such as income category and housing quality and whether respondents reside in an urban area (*U*). Thus, access to the social health system (*SHS*) may be written as a function of a range of observed traits. That is,

$$SHS = f(M, D, LM, SES, U) \tag{1}$$

Empirically, since all the outcomes are measured as binary qualitative dependent variables (*I, H, Me*), we estimate (1) using a probit model. That is, the probability of accessing the social health system is written as,

$$\begin{aligned}\Pr[SHS_i = 1] &= Prob[\beta_M M_i + \beta_D D_i + \beta_{LM} LM_i + \beta_{SES} SES_i + \beta_U U_i + \varepsilon_i \\ &> 0]\end{aligned} \tag{2}$$

where SHS_i indicates the outcome of interest for respondent *i,* the $\beta's$ are coefficients to be estimated and ε_i is assumed to be a normally distributed error term. We estimate several variants of (2). The key coefficients of interest are those associated with the effect of an individual's migratory status on access to health care after controlling for other observed attributes. While we have collected the data to maximize similarities between Nicaraguan migrants and native born respondents and also control for observed differences between the two groups we do not claim that we are identifying the causal effect of migratory status on access to health care but correlations between migratory status and health care after controlling for the most likely confounders.

5. Results

5.1. Use of healthcare by (Nicaraguan) migrants

Fig. 2 provides information on the stock of migrants in the country between 2000 and 2011. Over the various years the stock of migrants as a share of the total population increases from about 6 percent in 2000 to about 9 percent in 2011. The figure also pro-

[9] The following occupational categories were constructed: unpaid work (used as a base for comparison), professionals and technicians, paid domestic work, daily laborers, salespersons, farmers and fishermen, security officials, other services and finally pensioners.

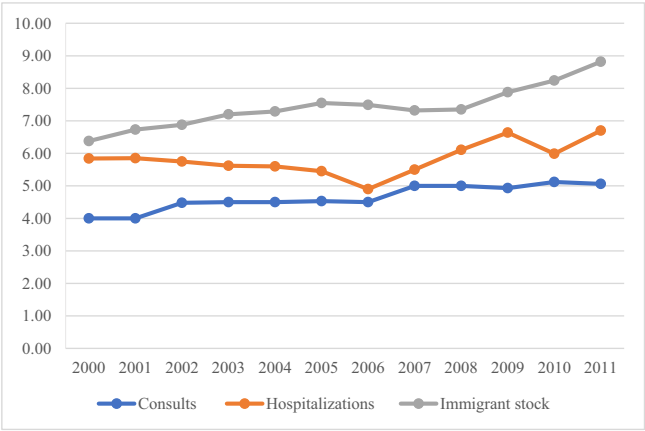

Fig. 2. Percentage of migrant consultations and hospitalizations compared to migrant stock, 2001–2011. *Sources:* Data on health statistics from CCSS, Health Statistics Area, 2000–2011; Population data from INEC-EHPM, 2000–2009, and INEC-ENAHO, 2010–2011.

vides information on the share of total consultations and hospitalizations between 2000 and 2011 which may be attributed to migrants. These administrative data are from the country's health service and are based on the total consultations and hospitalizations in all public health care facilities. The migrant share of total hospitalizations is 5.84 percent in 2000 and rises to 6.7 percent in 2011. The share of out-patient consultations which may be attributed to migrants ranges between 4 and 5 percent per year. In both cases the use of health care services whether for inpatient care or for outpatient visits is well below the stock of migrants in the country.

Fig. 2 provides information on health care use by migrants but does not distinguish between the use of services by the nationality of the migrant. The only year for which such data is available is 2006.[10] For this year, the health service is able to provide detailed information on the use of health care services by type and by nationality. Table 5 provides information on the use of a range of emergency services by Costa Ricans and Nicaraguan immigrants.[11] The criterion for selection was a minimum of 50,000 cases attended that year, as these represent the most common emergency treatments handled by the CCSS. We focus on emergency services because if high immigrant presence is to be noted anywhere, it is in the case of such services. All individuals in Costa Rica are entitled to immediate emergency service access, even if an invoice is presented afterwards (and possibly not paid). In contrast, non-emergency attention, such as general hospital admissions, may be less available to uninsured foreigners, because on the one hand, the CCSS can refuse services, and on the other, it is also possible that uninsured migrants are less likely to seek care for medical attention in non-emergency situations (Fouratt & Voorend, 2018).

Turning to the information contained in the table, first, three out of four Nicaraguans who seek emergency medical care from the CCSS are covered by health insurance. It is clear that the percentage of uninsured Nicaraguans is almost twice the percentage of uninsured Costa Ricans. Nevertheless, the incidence of uninsured Nicaraguan patients in the healthcare system in 2006 was nowhere near what is believed in public opinion, which tends to assume most, if not all, Nicaraguans are uninsured (López, 2012; Voorend & Venegas, 2014). Second, in terms of the use of health care services, Nicaraguans account for 5.11% of total patient visits which is almost proportional to their share in the total population (5.5%) in 2006 (Instituto Nacional de Estadística y Censos (INEC), 2006). For 8 of the 12 types of emergency services, Nicaraguans account for a smaller share of health care as compared to their the share in the population. This holds especially for those illnesses that have a large weight in the total number of emergencies, such as diseases of the respiratory system and infectious and parasitic diseases where Nicaraguan patients account for a smaller share of total visits (3.9% and 3.3%, respectively) compared to their share in the population. While Nicaraguans migrants do seem to use more than their share in the case of four types of services, the greater use is particularly pronounced in the case of emergency services related to pregnancy and birth. The more than proportionate use of such services may be attributed to the interaction between the age composition of the Nicaraguan migrant population, which is predominantly in the reproductive age group and lower access to health insurance and prenatal care services for Nicaraguan migrants. This combination of age structure, and limited access to insurance and prenatal care translates into greater use of emergency health services to which access may not be denied.[12] In any case, regardless of the higher use of such services, it is nowhere close to the 50% incidence some officials have been reported to perceive (Voorend & Venegas, 2014; Voorend, 2016b).

5.2. Health care access for Nicaraguan migrants: Regression analysis

To examine the second claim, that Nicaraguan migrants are discriminated against when trying to access health care, we turn to the results of the regression analysis, reported in Table 6. The columns provide marginal effects based on probit regressions where the dependent variable is possession of health insurance (*I*) for columns 1–3 and whether an individual would seek health care from CCSS (*H*) in columns 4–7. Estimates for seeking medicine from CCSS (*Me*) are provided in Table A1.

5.3. Access to health insurance and public health services

Column 1 of Table 6 provides estimates of the effect of being Nicaraguan on access to health insurance. The effect is negative and indicates that Nicaraguan born individuals are almost 28 percentage points less likely to be insured as compared to Costa Ricans. Related to migratory status, individuals who have lived for a longer period of time in Costa Rica are more likely to have insurance. Based on the column 1 estimates, an additional five years in Costa Rica increases the chances of possessing health insurance by about 2.5 percentage points.

Column 3 provides estimates which include the explicit migratory status of the individual. That is, Nicaraguan-born individuals are placed in five mutually exclusive categories – those who are nationalized, have permanent or temporary residency, are in Costa Rica irregularly, their papers are being processed or they are in the country on the basis of a tourist visa. The estimates provide a very clear picture. Nationalized, Nicaraguan-born individuals, or those who have residency status or those whose papers are currently being processed have a *higher* probability of possessing health insurance as compared to Costa Rican nationals. These effects are statistically significant and range from 10 to 19 percentage points. Prima facie this may seem surprising but as is shown in Table 3, Nicaraguan respondents are more likely to be in paid work (62 versus 38 percent) which has a bearing on access to insurance and at the same time a substantial portion of the Costa Rican respondents in our sample do not have access to insurance (16 percent). The

[10] While this data is somewhat dated, coming from the last survey on emergency services in 2006, it is the only available data that allows disaggregation by nationality.

[11] These are the number of cases attended by the CCSS in one year, meaning that the same person can attend emergency care several times.

[12] Voorend (2016b) explores this issue in detail.

Table 5
Emergency attention for selected diagnoses by nationality and health insurance, 2006.

Diagnoses	Total	% of uninsured patients	Incidence (%) by country of birth		Compared to 5.5% incidence in total pop.
		Total	Costa Rica	Nicaragua	
Total patients	4,463,776	11.5	93.8	5.1	–
Total Costa Rican patients	4,186,995	10.6			
Total Nicaraguan patients	228,074	24.6			
With health insurance	3,951,785		95.6	4.4	–
Without health insurance	511,991		88.8	11.2	+
Selected diagnoses					
Respiratory system	1,180,410	17.9	96.0	3.3	–
Infections and parasites	372,042	6.7	95.0	3.9	–
Digestive system	272,193	5.9	93.0	6.2	+
Genitourinary system	241,780	5.5	91.1	7.8	+
Care without pathology	187,239	4.9	90.5	7.9	+
Ear diseases	173,419	3.0	95.2	4.1	–
Skin diseases	141,816	2.7	93.3	5.2	–
Circulatory system	134,398	2.5	93.9	4.6	–
Pregnancy, birth	130,320	4.9	86.9	11.3	+
Nervous system	86,427	1.7	94.3	4.4	–
Mental disorders	83,877	4.8	93.0	5.4	–
Endocrine, Nutr. and Metabolism	53,691	1.1	94.5	3.9	–

Source: CCSS (2005), Health Statistics Area, 2006.

estimates also highlight that the negative access of health insurance for Nicaraguans as shown in column 1 emanates from irregular Nicaraguan migrants and those who have a tourist status. Irregular immigrants are 55 percentage points less likely to be insured as compared to nationals while the effect is larger (63 percentage points) for Nicaraguans in the country with a tourist status. The upshot of these estimates is that the negative effect of accessing health care for Nicaraguans, does not emanate from being Nicaraguans but due to their irregular migratory status. In other words, provided that they have regular migratory status there does not seem to be discrimination against Nicaraguans in terms of gaining access to health insurance.

Estimates in columns 4 through 7 examine the link between migratory status and whether individuals seek access to health services from the CCSS. The estimates are similar to the effects of possessing health insurance. As shown in column 4, Nicaraguans are 25.6 percentage points less likely to see health care from the CCSS. This effect may be attributed entirely to those who are in the country irregularly or are in the country on a tourist visa who are 43 to 48 percentage points less likely to see health care. In contrast, nationalized- Nicaraguans or those with residency status are as likely to use health services as compared to Costa Ricans.[13]

Turning to other characteristics, given the sampling design, it may be expected that the various socio-economic and demographic traits included in the regressions presented in Table 6 should not have a very strong role to play in determining access to insurance. This is indeed the case as none of the socio-economic traits (education, income, housing quality) influence access to health insurance. Access to occupational accident insurance is correlated with both access to health insurance and seeking health care. This is not surprising and suggests that access to health insurance which is linked to an individual's legal status and access to other forms of insurances are correlated. Finally, evidence to support the claim that migrants access healthcare services through their children, as suggested by ethnographic work, is quite weak. There is no effect of the presence of children on obtaining access to insurance and there is a small positive, albeit statistically insignificant effect exerted by the presence of young children on accessing health care.

6. Discussion and concluding remarks

This paper used data from Costa Rica to contribute to the often heated and passionate immigration-integration debate. Specifically, on the one hand, this paper assessed whether there is any empirical support for the welfare-magnet claim, namely that immigrants are overrepresented in health services which is the basis for welfare chauvinism sentiments. On the other hand, we assessed whether there is any evidence to support the claim that regardless of their migratory status in the country, Nicaraguan migrants are discriminated when they attempt to access health insurance and health services. To emphasize, the focus of the paper was restricted to discrimination in terms of access to health insurance and health services and did not deal with other forms of discrimination which may arise when migrants seek health care such as the quality of treatment (for instance, time to see a health care provider, time spent with a health care provider, bedside manner of the health care provider). Furthermore, although our analysis relied on purposefully collected data to maximize similarities between Nicaraguan migrants and native born respondents and we controlled for observed differences between the two groups we do not claim to identify the causal effect of migratory status on access to health care but correlations between migratory status and health care after controlling for the most likely confounders.

Notwithstanding these caveats, the paper has several novel features. First and foremost, in order to place such debates on a stronger empirical footing we designed and surveyed a representative sample of Nicaraguan migrants and native Costa Ricans with similar traits. Second, while the bulk of the literature focuses on migrant access to welfare services in the context of Southern to Northern migration, this paper is based in the context of a South-South migration flow. Finally, rather than dealing with formal entitlements to healthcare access, we assess actual access to health insurance.

Our analysis of the data showed that there is no empirical support for the claim that immigrants are overrepresented as users of Costa Rican health services. Data obtained from the Costa Rican health services shows that for all years between 2001 and 2011 immigrants accounted for a smaller share of consultations and hos-

[13] As shown in Table A1, results for access to medicine reveal a similar pattern. That is, it is the migratory status of a Nicaraguan migrant that determines access to medicine rather than nationality.

Table 6
The Effect of Nationality and Migratory Status on Access to Insurance and Healthcare Probit Marginal Effects (Std. Error).

		Dependent Variable: Access to public health insurance (*I*)			Dependent Variable: Access to public healthcare (*H*)			
		1	2	3	4	5	6	7
D	*Age*	0.008***	0.008***	0.008***	0.005***	0.005***	0.005**	0.001
		(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)	(0.001)
	Sex	−0.169***	−0.127**	−0.135**	−0.076+	−0.042	−0.046	0.007
		(0.043)	(0.044)	(0.044)	(0.044)	(0.044)	(0.044)	(0.045)
M	*Nicaragua*	−0.276***	.	.	−0.256***	.	.	.
		(0.064)			(0.067)			
	Years in CR	0.005+	0.000	−0.004*	0.005+	−0.000	−0.003	−0.001
		(0.003)	(0.002)	(0.002)	(0.003)	(0.002)	(0.002)	(0.002)
	CR contact	−0.005	−0.067	−0.020	−0.014	−0.057	−0.026	−0.016
		(0.043)	(0.043)	(0.048)	(0.050)	(0.046)	(0.051)	(0.051)
	Irregular	.	−0.494***	−0.550***	.	−0.465***	−0.475***	−0.259**
			(0.060)	(0.087)		(0.055)	(0.080)	(0.095)
	Nationalized	.	.	0.190***	.	.	0.047	−0.093
				(0.030)			(0.116)	(0.132)
	Residency	.	.	0.101*	.	.	0.089	0.030
				(0.051)			(0.062)	(0.063)
	Tourist	.	.	−0.627***	.	.	−0.428***	−0.158
				(0.097)			(0.101)	(0.120)
	In process	.	.	0.124**	.	.	0.058	−0.035
				(0.047)			(0.097)	(0.117)
LM	*Health Insurance*	.	.	.	.	.	.	0.531***
								(0.046)
	13th month	−0.050	−0.066	−0.119	−0.021	−0.046	−0.061	−0.019
		(0.093)	(0.101)	(0.111)	(0.094)	(0.098)	(0.099)	(0.094)
	Sick days	−0.061	−0.085	−0.083	−0.055	−0.059	−0.063	−0.031
		(0.088)	(0.098)	(0.095)	(0.084)	(0.085)	(0.087)	(0.082)
	Paid holidays	0.099	0.094	0.091	0.082	0.068	0.059	0.025
		(0.080)	(0.083)	(0.084)	(0.091)	(0.092)	(0.094)	(0.091)
	Occup. accident insurance	0.257***	0.268***	0.257***	0.179**	0.181**	0.172**	0.030
		(0.031)	(0.032)	(0.033)	(0.058)	(0.059)	(0.061)	(0.069)
LM	*Paid overtime*	−0.027	−0.030	−0.014	0.026	0.033	0.041	0.058
		(0.069)	(0.074)	(0.072)	(0.064)	(0.063)	(0.064)	(0.063)
	Education	0.001	0.002	−0.000	0.001	0.001	−0.000	0.000
		(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.005)	(0.006)
	Income category	0.008	0.004	0.007	−0.024*	−0.028**	−0.028**	−0.035***
		(0.009)	(0.010)	(0.009)	(0.010)	(0.010)	(0.010)	(0.011)
HH	*Children under 6*	0.006	−0.009	−0.022	0.053	0.051	0.050	0.072+
		(0.033)	(0.036)	(0.037)	(0.037)	(0.038)	(0.039)	(0.039)
C	*Urban area*	−0.005	−0.015	−0.006	−0.002	−0.008	0.008	0.016
		(0.033)	(0.034)	(0.035)	(0.038)	(0.039)	(0.040)	(0.042)
	Housing quality	0.011*	0.010+	0.008	0.015*	0.014*	0.014*	0.012+
		(0.005)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.007)
Observations		797	797	797	797	797	797	797
Pseudo R2		0.216	0.275	0.355	0.0979	0.149	0.181	0.295
Log Likelihood		−356.464	−329.400	−293.076	−448.624	−423.182	−407.215	−350.480

pitalizations as compared to their share in the population. Over this period, the share of immigrants in the total population rose from 6 to 9 percent while their share of hospitalizations remained between 5.8 and 6.7 percent and their share of consultations ranged between 4 and 5 percent. Despite these figures, many of the health providers working for the health services perceive migrant presence to be much higher than that suggested by the institution's own data.

At the same time, we did not find evidence that Nicaraguans were discriminated in terms of health care access based on their nationality. While pro-immigrant rights NGOs and ethnographic work have both suggested clear discrimination against migrants in terms of access to health care, with their origins being more important than health insurance (Fouratt & Voorend, 2018; Dos Santos, 2015), the analysis presented in this paper which is based on representative and purposefully collected data does not support this claim. The estimates show that access to health insurance, public health services and medicine depends on migratory status and not nationality. Tourists and irregular migrants have difficulty accessing healthcare insurance, and at the same time have considerably less access to public healthcare and medicine. However, Nicaraguans who are Costa Ricans or who have permanent or temporary residence status are able to access insurance and make use of health services. While it may well be that Costa Rica's immigration policies make it hard for Nicaraguans to regularize their migratory status, the conclusion that Nicaraguans are discriminated in terms of accessing health care services because they are Nicaraguans does not seem to pass muster.

While this paper focused on one country, the lessons emerging are clearly pertinent for other migrant receiving nations. Indeed, it is not unusual, as in the current case that there is a high degree of refraction between the 'subjective' opinions of welfare providers and the general population as compared to findings emerging from more 'objective' data. The paper highlights the clear need to base public policy debates on immigration and integration on a much stronger empirical footing. At the same time it is also clear that

Table A1
The Effect of Nationality and Migratory Status on Access to Medicine Probit Marginal Effects (Std. Error).

		Dependent Variable: Access to public medicine (M)			
		1	2	3	4
D	*Age*	0.009***	0.008***	0.008***	0.004**
		(0.001)	(0.001)	(0.002)	(0.002)
	Sex	−0.031	0.003	−0.003	0.060
		(0.046)	(0.047)	(0.048)	(0.051)
M	*Nicaragua*	−0.311***	.	.	.
		(0.074)			
	Years in CR	0.007*	0.000	0.000	0.003
		(0.003)	(0.002)	(0.003)	(0.003)
	CR contact	0.024	−0.044	0.032	0.049
		(0.057)	(0.049)	(0.057)	(0.058)
	Irregular	.	−0.468***	−0.507***	−0.332***
			(0.050)	(0.065)	(0.094)
	Nationalized	.	.	0.052	−0.120
				(0.139)	(0.141)
	Residency	.	.	−0.044	−0.140+
				(0.079)	(0.079)
	Tourist	.	.	−0.519***	−0.381***
				(0.061)	(0.097)
	In process	.	.	−0.041	−0.169
				(0.142)	(0.153)
LM	*Health Insurance*	.	.	.	0.557***
					(0.044)
	13th month	−0.139	−0.178+	−0.210+	−0.171
		(0.108)	(0.107)	(0.108)	(0.119)
	Sick days	−0.082	−0.092	−0.080	−0.039
		(0.089)	(0.091)	(0.092)	(0.096)
	Paid holidays	0.205*	0.198*	0.199*	0.168
		(0.098)	(0.098)	(0.102)	(0.109)
	Occup. accident insurance	0.180*	0.187*	0.169*	0.001
		(0.071)	(0.075)	(0.077)	(0.090)
LM	*Paid overtime*	−0.059	−0.056	−0.046	−0.028
		(0.075)	(0.078)	(0.079)	(0.087)
	Education	0.004	0.004	0.002	0.003
		(0.006)	(0.006)	(0.006)	(0.006)
	Income category	−0.025*	−0.028*	−0.027*	−0.035**
		(0.011)	(0.011)	(0.011)	(0.012)
HH	*Children under 6*	0.091*	0.091*	0.097*	0.123**
		(0.041)	(0.042)	(0.043)	(0.046)
C	*Urban area*	−0.123**	−0.134***	−0.121**	−0.136**
		(0.039)	(0.041)	(0.042)	(0.043)
	Housing quality	0.009	0.009	0.008	0.004
		(0.006)	*(0.007)*	*(0.007)*	*(0.007)*
Observations		797	797	797	797
Pseudo R2		0.122	0.162	0.195	0.305
Log Likelihood		−474.919	−452.885	−434.970	−375.674

it is hard to change perceptions only on the basis of data and it does raise the intriguing question as to why there remains a generally negative perception of migrant's disproportionate use of social services if the data suggest otherwise. While this is beyond the scope of this research, at least in the context of Costa Rica and perhaps elsewhere, the literature suggests it may have to do with a combination of a somewhat nostalgic view of the idea of Costa Rican exceptionalism and the threat the Nicaraguan 'other' comprises (Sandoval, 2012), with persistent and ample negative media coverage of Nicaraguans (Campos & Tristan, 2009).

CRediT authorship contribution statement

Koen Voorend: Conceptualization, Methodology, Software, Formal analysis, Investigation, Data curation, Writing - original draft, Writing - review & editing. **Arjun S. Bedi:** Conceptualization, Methodology, Writing - review & editing. **Rebeca Sura-Fonseca:** Methodology, Software, Formal analysis, Data curation, Writing - review & editing.

Declaration of Competing Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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