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Towards universal coverage for international migrants in Chile: accessibility and acceptability indicators from a multi-methods study

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ABSTRACT

Background: Universal health coverage (UHC) is a major global public health goal. UHC means that all individuals and communities receive the health services they need without suffering financial hardship. Equitable UHC considers several minimum dimensions of access to healthcare, such as accessibility and acceptability. We aim to update data on accessibility and acceptability to healthcare for international migrants in Chile and to compare it to the Chilean-born population.

Methods: Multi-methods study. For accessibility, we measured healthcare provision entitlement by international immigrants and compared them to the Chilean-born population, based on data from the anonymous national representative CASEN survey at different time points; 2013, 2015 and 2017. For acceptability, we collected and analysed qualitative data focussed on exploring the perceptions of the Chilean healthcare system according to immigrants and based on individual interviews that were conducted in Chile between 2015 and 2017.

Results: In relation to accessibility, a growing proportion of immigrants has no healthcare provision, rising from 8,9% in 2013 to 18,6% in 2017. These rates are 3,5% higher than rates for Chileans without healthcare provision in 2013, and 4,4% higher amongst immigrants compared to Chileans in 2017. Regarding acceptability, immigrants report four main dimensions affecting their perception of care: administrative barriers to effective access to healthcare, interpersonal and cultural barriers to effective access to healthcare, perceived quality of care, and adequacy of healthcare delivery based on individual and cultural differences.

Discussion: We found persistent unequal accessibility and acceptability to healthcare services in Chile in detriment of the international migrant population compared to the Chilean-born population. We found a significant gap in the percentage of people with no healthcare provision entitlement between migrants and Chileans, which grew over time. These findings raise concerns of inequitable access to healthcare in Chile based on migration status.

Keywords: Transients and migrants, Chile, accessibility, acceptability, universal health coverage, Latin America

1. INTRODUCTION

1.1. Universal health coverage and access to healthcare

Universal health coverage (UHC) is a major global public health goal. Due to its relevance to global health, social justice and equity in health, all UN Member States have agreed to try to achieve universal health coverage (UHC) by 2030, as part of the Sustainable Development Goals. According to the World Health Organization (WHO) [1] , at least half of the world's population still do not have full coverage of essential health services, about 100 million people are still being pushed into "extreme poverty" because they have to pay for health care, and almost 12% of the world's population spend at least 10% of their household budgets on health care.

UHC means that all individuals and communities receive the health services they need without suffering financial hardship. It includes the full spectrum of essential, quality health services, from health promotion to prevention, treatment, rehabilitation, and palliative care. It enables everyone to access the services that address the most important causes of disease and death and ensures that the quality of those services is good enough to improve the health of the people who receive them. It also protects people from the financial consequences of paying for health services out of their own pockets, reducing the risk that people will be pushed into poverty. UHC is firmly based on the 1948 WHO Constitution, which declares health a fundamental human right and commits to ensuring the highest attainable level of health for all. Hence, UHC is closely related to equitable access to healthcare, which is of vital importance to many countries. [2]

Based on the principle of social justice, equitable UHC considers several minimum

dimensions of access to healthcare. The 5A´s model [3] includes accessibility, adequacy, affordability, availability and appropriateness/acceptability. Another more frequently used model of access suggests the following four dimensions [4] (i.e. the AAAQ model): accessibility, acceptability, availability and quality. In every case, both accessibility and acceptability are mainstream indicators of equitable access and use of healthcare services in any country, and therefore, represent valuable indicators for monitoring UHC [5]. *Accessibility* is defined as whether the services are effectively available for utilization. Access measured in terms of utilization is dependent on the physical accessibility and acceptability of services and not merely adequacy of supply. This can also refer to the time required to get necessary healthcare, for example. *Acceptability* is related to the idea that services available must be relevant to the different parts of a population in terms of their health needs and material and cultural settings if the population is to 'gain access to satisfactory health outcomes'. In other words, available health care resources should meet the needs of different population groups. Accessibility and acceptability of healthcare have been recognised as fundamental dimensions of UHC and key social determinants of equitable health.[6]

1.2. UHC for international migrants

According to international organizations, monitoring progress towards UHC should focus on two things: (i) the proportion of a population that can access essential quality health services, and (ii) the proportion of the population that spends a large amount of household income on health.[1] Together with the World Bank, WHO has developed a framework to track the progress of UHC by monitoring both categories, *"taking into account both the overall level and the extent to which UHC is equitable, offering service coverage and financial protection to all people within a population, such as the poor or those living in remote rural areas"*. WHO uses 16 essential health services in four categories as indicators of the level and equity of coverage in countries, all of them relevant to international migrants (maternal and infant care, infectious diseases, non-communicable diseases, and access to healthcare), which are presented in Figure 1.

Figure 1. WHO 16 essential health services indicators of the level and equity of UHC [1]

Reproductive, maternal, newborn and child health:

- family planning
- antenatal and delivery care
- full child immunization
- health-seeking behaviour for pneumonia.

Infectious diseases:

- tuberculosis treatment

- HIV antiretroviral treatment
- Hepatitis treatment
- use of insecticide-treated bed nets for malaria prevention
- adequate sanitation.

Noncommunicable diseases:

- prevention and treatment of raised blood pressure
- prevention and treatment of raised blood glucose
- cervical cancer screening
- tobacco (non-)smoking.

Service capacity and access:

- basic hospital access
- health worker density
- access to essential medicines
- health security: compliance with the International Health Regulations.

Accessibility and acceptability of healthcare by immigrants are inevitable shaped by transnational and migration-related experiences with health and healthcare.[7] The migration process is complex and dynamic, and most immigrants worldwide experience several structural and interpersonal barriers to access to healthcare.[8] Having a different native language, lack of accurate information about the system, stigma and discrimination, complex administrative bureaucracy, and others, operate as significant barriers to adequate access and satisfactory use of healthcare by immigrants.[7,9,10] Globally, immigrants report lower access and use of most healthcare services, except for emergency care which in some cases can be higher amongst immigrants, as it appears to be a consequence of poor access to preventable care and poor quality of living standards for some of them, especially if undocumented or having a refugee status.[11]

A growing group in Chile are international immigrants (estimated around 4.5 to 6% of the total population, representing an estimated 1,2 million), most of them coming from regional Latin American and Caribbean countries.[12] Existing research in Latin America and Chile suggests that international migrants tend to report lower rates of healthcare provision entitlement and lower rates of healthcare services utilization compared to locals.[13–16] Some studies have also reported lower accessibility and acceptability of healthcare by some subgroups like migrant children and migrant pregnant women.[17–19] This evidence could be updated and expanded in order to monitor how UHC for the international migrant population is being addressed in Chile.

Chile has taken great interest in improving accessibility and acceptability of healthcare for international migrants. Several norms have been developed since early 2000 and a

unique health policy for immigrants was launched in October 2017, with focus on reducing access gaps between immigrants and locals in the country. This health policy used the UHC framework and particularly the AAAQ model for monitoring access to healthcare in this population over time. Despite its significance to the country and the region, there is no study analysing accessibility and acceptability indicators of healthcare among immigrants to Chile after the Health Policy for Immigrants in Chile was installed. Therefore, there is no up-to-date information about their healthcare provision entitlement or the degree of acceptability of health services provided for this growing group.

Figure 2. Healthcare programmes and policies developed in Chile to protect the health of international immigrants, regardless of their legal status in the country

Programme for pregnant immigrant women:

Supported by the Social Organizations Directorate, the Chilean Ministry of Health and the Department of Immigration and Migration, migrant women who are pregnant and have no current legal documentation can attend the primary clinic nearest their home for guidance. This enables them to access the healthcare system and receive documentation to approach the Department of Immigration and obtain a temporary visa for one year.

Programme for immigrants under 18 years old:

There is a collaboration agreement between the Chilean Ministry of Health and the Ministry of the Interior, to regularize migration for immigrants under18 years. Immigrants under that age and in social risk situations can receive health care in the public health network, on an equal basis and regardless of their immigration status and that of their parents (Resolution No. 1914 of March 13, 2008 and REGULAR 14 Number 3 229, of June 11th, 2008).

Free medical care for Peruvians with precarious resources:

Since late August 2002, the General Consulate of Peru in Santiago has an agreement with the Chilean Red Cross with the voluntary additional contribution of the Peruvian community physicians. This is a Free Medical Clinic serving Peruvians, whether documented or not, for economic reasons or otherwise unable to access these services from other government or private institutions. The clinic provides a primary care service (consultations) (Consulado General del Perú en Santiago de Chile, 2009).

Social security agreement between the republic of Peru and the republic of Chile:

Convention concerning the right of Peruvian pensioners to receive health benefits equivalent to those of the country of residence, such as retirement pensions and social benefits due to disability (Consulado General del Perú en Santiago de Chile, 2009).

Access to healthcare to undocumented immigrants in Chile:

In June 2016 the Ministry of Health created a resolution to support the access to healthcare (having a healthcare provision entitlement) to all migrants in the country, based on the Chilean Constitution that declares that every person in the country will have equal access to healthcare. For this, Decreto 67 and Circular A15 No.4 established that every immigrant in the process of getting a visa in Chile will be allowed in the public healthcare system, through a unique

temporary code that will replace the visa ID number until such document is available.

Health Policy for Immigrants to Chile:

In October 2017 the Ministry of Health in Chile launched this national health policy that aims mainly at reducing gaps in access to healthcare between international migrants and Chileans. This health policy is unique in the region and considers 8 specific objectives and 7 strategies. The conceptual pillars were the migration process, the social determinants of health, intercultural health, social participation in health and intersectoral collaboration (Ministry of Health, 2017).

1.3. Study objective

This study explored indicators of accessibility and acceptability of the healthcare system by international migrants compared to the Chilean-born population. As a means of *accessibility*, we measured healthcare provision entitlement by international immigrants and compared them to the Chilean-born population. For this, we used data from the anonymous, nationally representative CASEN survey at different time points, 2013, 2015 and 2017. For *acceptability*, we collected and analysed qualitative data exploring the perceptions of the Chilean healthcare system according to immigrants and based on individual interviews that were conducted in Chile between 2015 and 2017. This study was nested within a larger research project funded by the National Commission for Science and Technology in Chile between 2013 and 2017 (Fondecyt 11130042: Developing intelligence in primary care for international migrants to Chile: a multi-methods study).

2. METHODS

2.1. Study setting: Chile

Chile is a high-income country with a Gross Domestic Product per capita above $ 20 000 (USD)[7]. It has a population of just over 16 million inhabitants and has experienced a progressive improvement of the health status of the population in recent decades, a decline in the infant and general mortality rates, and an increase in life expectancy [20,21]. Nowadays, the health status of the Chilean population is very similar to some high-income countries and better than many other Latin American nations [20,22].

The continental part of the country is divided into 15 regions and 351 communes or boroughs. The municipality represents the local government of the communes, which oversees the public primary healthcare through primary care centres that work closely with available public hospitals located in the same geographical catching area. If individuals do not want to use the public system, they can choose to attend the private system and pay for these services. About 70% of the total population in Chile uses the public healthcare system and about 30% uses the private system. Despite the existence of these universal services in the public system, they are not always fully used and there are significant gradients in use by socioeconomic status (SES) in the total population [23] and some subgroups like people living in poverty, undereducated people and immigrants.[24]

2.2. Study design

This is a multi-methods study.[25] Accessibility was addressed through the secondary analysis of a repeated representative survey: the CASEN survey. The CASEN survey is conducted every 2 to 3 years in Chile and it is focused on providing the country with a population-based socioeconomic characterization, including poverty measures and the utility of several social policies implemented in the past. Acceptability was explored through qualitative data collected before and during the phase the Health Policy for Immigrants in Chile was developed. Both sub-studies informed how access to healthcare for immigrants in Chile was shaped at a time that a novel national health policy for this population was launched.

2.3. Quantitative sub-study: accessibility

Secondary data analysis of the nationally representative CASEN (Caracterización Socio-Económica Nacional) survey conducted in Chile in 2013, 2015 and 2017. The CASEN survey is conducted every 2-3 years and aims at describing the socioeconomic situation of the country, with focus on existing levels of poverty and the use of social benefits. This sample is estimated for a national representation and based on the National Statistics Institute geospatial characterization of the country that divides it into 8.280 sections (i.e. sections are predefined clusters of households in a territory) from 324 boroughs. Of these sections, less than 50 are excluded from the survey sampling strategy for having less than 40 000 inhabitants or for being very hard to reach (small distant islands, hard to reach villages up in the mountains, etc.). The remaining sections are randomly sampled, separately, based on whether they are urban or rural (stratified random sampling strategy). Within each section, blocks and then households are sequentially sampled. The sample unit for data collection is the head of the household. Hence, the survey employs multistage probabilistic sampling with three phases (section, block and household), stratified by urban/rural. The sampling strategy excluded people living in transient camps, who represent less than 1% of the total population. People living in institutions (i.e. hospitals, prison) were also excluded.[26–28] Study samples for each year included in this analysis are presented in Table 1. Absolute national and regional errors of the final samples of the Casen survey do not exceed 4% and relative national and regional errors do not exceed 30%. The mean number of households included in the CASEN per region was, for each year, representative of the total population within each region and within the urban and rural settings considered in the sampling strategy.[29] Data collection was via face-to-face interview by trained interviewers, using a validated questionnaire. The preferred respondent was the reported head of household, followed by their spouse or an adult household member. In most cases the housewife and the head of the household provided the information about the household. Information was collected on all members of the household, including adults and children. The response rate of the survey was always above 85%.

Table 1. Quantitative sub-study samples for each year included in this study, CASEN survey 2013, 2015 and 2017

	2013			2015			2017		
	Weighted population	**% (IC)**	**Sample size**	**Weighted population**	**% (IC)**	**Sample size**	**Weighted population**	**% (IC)**	**Sample size**
Total	17.273.117	100	218.346	17.552.505	100	266.968	17.807.414	100	216.439
Chileans	16.689.377	96,6 (96,3 – 96,9)	212.346	16.970.061	96,7 (96,3 – 97,0)	260.754	16.843.471	94,6 (93,9-95,1)	207,603
Immigrants	354.581	2,1 (1,8 – 2,3)	3.555	465.319	2,7 (2,3 – 3,0)	4.851	777.407	4,4 (3,8-4,9)	6.811
Missing data	229.159	1,33 (1,2 – 1,5)	2.590	117.125	0,7 (0,6 – 0,7)	1.363	186.536	1,04 (0,9-1,1)	2,025

Data analysis followed several steps. First, we conducted an exploratory analysis of the database in order to identify missing data on key variables. Missing data was below 0.05% on all relevant variables. Second, we re-coded original variables into those that were required for our analysis. Third, we conducted descriptive statistical analysis. Fourth, we conducted comparative analysis using Chi-square test for categorical variables and t-test for numerical variables. For our accessibility analysis, we considered healthcare provision entitlement as the dependent variable (outcome) and migration status as the independent variable. Healthcare provision entitlement was a multinomial variable with five possible categories of response: no healthcare provision or don´t know, public system, private system, and army or any other (like an international health insurance). Migrations status was included in the CASEN survey in 2006 for the first time. For all years, the CASEN survey asked: in which country was your mother living when you were born? Based on the UN 2003 definition of international migrant (any person who resides in a different country from the one they were born), those who answered "in a different country from Chile" were identified as international immigrants and were included in the analysis. Those that reported being born in Chile were included in the Chilean-born comparison group. Control variables were several demographic (age, sex, ethnicity) and socioeconomic (household income, educational level) variables. We conducted a descriptive (proportions and means) and comparative analysis (Chi2 test, t student test) of these variables of interest using the "svy" command in Stata 12.0.

2.4. Qualitative sub-study: acceptability

A secondary data analysis was performed, using qualitative data from the Fondecyt project 11130042 "Developing Public Health Intelligence for immigrants in Chile: a multi-method study" (Conicyt, Government of Chile), with a constructivist paradigm of investigation. The original study used case studies to achieve a detailed and comprehensive description of the cases, which in this study was the perception of acceptability of health care of international migrants in Chile. A secondary thematic analysis of data obtained in the original

study was conducted in NVivo software, which focused on the interviews and focus groups conducted on the international migrant population in eight communes of the country, four in the northern zone and four in the metropolitan region. The inclusion criteria of the original study were to be over 18 years of age and to participate voluntarily, confirmed by signing an informed consent form. The final number of interviews of the original study was obtained using information saturation criteria around the proposed objectives, a definite moment when the qualitative material collected stopped providing new data for the understanding of the phenomenon under study. A detailed description of the qualitative sample appears in Table 2.

Table 2. Qualitative sub-study sample included in the analysis: international migrants

Data collection: 2014-2015.	
Migrants Total: 120 (65 individual interviews, 1 double interview and 8 focus groups)	Sex: 80 women, 40 men Age range: 19-69; Mean age: 36,29 Nationalities: 46 Peruvians, 27 Colombians, 20 Ecuadorians, 14 Bolivians, 11 Dominicans, 2 Haitians
Data confirmation with a selection of participants: 2016-2017.	
Migrants: 6 (4 individual interviews and 1 double interview)	Sex: 4 women, 2 men Age range: 24-53; mean age: 34,83 years old

2.5. Ethical considerations

The original project (Fondecyt 11130042) was reviewed and approved by the Ethics Committee of the Universidad del Desarrollo and by the Fondecyt Ethics Committee at the National Commission for Science and Technology Research, Government of Chile.

3. RESULTS

3.1. Accessibility to healthcare by international migrants compared to the Chilean-born

General demographic and socioeconomic characteristics of the CASEN survey participants are shown in Table 3. A

detailed comparison of healthcare provision entitlement by immigrants compared to Chileans is shown in Table 4. In relation to the demographic profile of immigrants to Chile, they appear to be more female than male, but with a growing proportion of male population over time. They appear to become on average younger over time, which might be explained by the raising proportion of the 16-65 age group between 2013 and 2017. Belonging to or descending from any of the nine legally recognised ethnic minority groups in the country is decreasing over time amongst immigrants, and educational level remains roughly similar across categories over time, except for no education at all, which falls from 2013 to 2015 and remains low in 2017. For every year of analysis, immigrants report a significantly higher mean household income than Chileans, with great heterogeneity by income quintile. A steady reduction in the proportion of immigrants living in the top wealthiest household income quintile can be observed over time, with other quintiles remaining similar during the same time of analysis.

Regarding healthcare provision entitlement, immigrants report a growing proportion of individuals with no healthcare provision over time. It grows from 8,9% in 2013 to 18,6% in 2017. These rates represent a 3,5 higher proportion of people with no healthcare provision in 2013, which grows to 4,4 times higher amongst immigrants compared to Chileans in 2017. Other categories -public, private, other- remain similar between 2013 and 2017. No healthcare provision also grew in the Chilean-born over the time of analysis, from 2,5% in 2013 to 4,2% in 2017; other categories remain similar between 2013 and 2017.

Table 3. Description of demographic and socioeconomic variables among the Chilean-born and international immigrants in Chile, the CASEN survey 2013, 2015 and 2017

	CASEN 2013		**CASEN 2015**		**CASEN 2017**	
	Chilean-born population Mean/Pre-valence (95%CI)	**Immigrant population Mean/Pre-valence (95%CI)**	**Chilean-born population Mean/Pre-valence (95%CI)**	**Immigrant population Mean/Pre-valence (95%CI)**	**Chilean-born population Mean/Pre-valence (95%CI)**	**Immigrant population Mean/Pre-valence (95%CI)**
Sex: Male	47,4 (47,0-47,7)	44,9 (40,3-49,6)	47,3 (47,0 – 47,5)	48,0 (45,9-50,2)	47,5 (47,2-47,7)	48,6 (46,3-50,9)
Mean age	35,5 (35,2-35,7)	33,4 (32,1-34,6)	36,0 (35,8 – 6,2)*	32,3 (31,4-33,3)*	37,4 (37,1-37,6)	31,7 (30,9-32,4)*
Age categories:						
<16	22,7 (22,3-23,0)	14,2 (10,4-19,2)*	22,2 (21,9-22,5)	13,9 (12,3-15,7)*	20,9 (20,4-21,4)	13,8 (12,5-15,1)*
16-65	66,3 (65,9-66,7)	80,8 (76,3-84,7)*	66,1 (65,8 – 66,4)	82,8 (80,8-84,6)*	65,9 (65,5-66,2)	83,4 (82,1-84,7)*
Over 65	11,0 (10,7-11,4)	4,9 (3,8-6,3)*	11,7 (11,4-12,0)	3,4 (2,6-4,3)*	13,1 (12,8-13,5)	2,8 (2,2-3,6)*
Ethnic minority group: yes	9,2(8,8-9,6)	5,4 (4,3-6,7)*	9,2 (8,8-9,6)	5,1 (3,9-6,8)*	9,9 (9,5-10,3)	2,8 (2,2-3,5)*
Educational level:						
No education	11,4 (11,1-11,6)	4,9 (3,0-7,8)*	5,6 (5,5-5,7)	2,2 (1,3-3,6)*	5,2 (5,0-5,3)	2,2 (1,7-2,8)*

Primary School	30,3 (29,7-30,8)	18,1 (15,8-20,7)*	34,5 (33,9-34,9)	20,5 (18,0 – 23,4)*	33,7 (33,3-34,2)	18,6 (16,9-20,3)*
High School	28,8 (28,3-29,3)	36,8 (31,6-42,3)*	37,6 (37,1-38,0)	44,7 (42,1-47,4)*	36,9 (36,5-37,3)	40,5 (36,8-44,3)*
University level	29,1 (28,4-29,8)	39,6 (35,8-43,5)*	22,3 (21,6-23,0)	32,5 (29,0-36,1)*	23,9 (23,3-24,6)	38,1 (33,6-42,9)*
Mean total household income per month: UDS [σ]	629,81 (609,6 -650,01)	1064,05 1* (887,3- 1240,8)	556,1 (539,6 - 572,5)	921,5 * (833,6 -1009,3)	691,05 (669,4 – 712,7)	996,4* (889,4-1100,1)
Quintile 1 (poorest)	21,8 (21,1-22,6)	11,5 (9,4-14,0)*	22,2 (21,6-22,8)	11,9 (9,6-14,6)*	21,7 (21,1-22,3)	11,5 (9,5-13,7)*
Quintile 2	22,1 (21,3-22,9)	18,5 (12,5-26,4)*	22,4 (21,9-22,9)	18,2 (15,3-21,3)*	23,3 (22,7-23,9)	17,3 (14,6-20,3)*
Quintile 3	21,0 (20,2-21,8)	16,6 (13,1-20,7)*	20,8 (20,3-21,3)	20,5 (16,9-24,7)*	21,1 (20,5-21,7)	18,7 (16,2-21,4)*
Quintile 4	18,9 (18,3-19,6)	24,1 (19,6-29,2)*	18,9 (18,4-19,4)	21,9 (18,9-25,3)*	18,2 (17,7-18,7)	28,3 (24,2-32,9)
Quintile 5 (wealthiest)	16,2 (15,3-17,0)	29,4 (24,2-35,2)*	15,7 (14,9 -16,6)	27,5 (23,6-31,7)*	15,7 (14,9 -16,6)	24,3 (20,7-28,3)*

[σ]1USD in 2013=529,45 Chilean pesos; 1USD in 2015: 704,24 Chilean pesos; 1USD in 2017: 638,13 Chilean pesos [41]
*p-value <0.05 when comparing immigrants with Chileans for each year of analysis

Table 4. Healthcare provision entitlement by international migrants and Chilean-born, CASEN survey 2013, 2015 and 2017

	CASEN 2013		**CASEN 2015**		**CASEN 2017**	
	Chilean-born population Mean/Pre-valence (95%CI)	**Immigrant population Mean/Pre-valence (95%CI)**	**Chilean-born population Mean/Pre-valence (95%CI)**	**Immigrant population Mean/Pre-valence (95%CI)**	**Chilean-born population Mean/Pre-valence (95%CI)**	**Immigrant population Mean/Pre-valence (95%CI)**
None or don't know	2,5 (2,3-2,8)	8,9 (7,3-10,8)*	4,4 (4,2-4,6)	17,5 (14,4-21,1)*	4,2 (3,9-4,3)	18,6 (16,2-21,3)*
Public healthcare (FONASA)	78,6 (77,7-79,4)	68,7 (63,9-73,1)*	77,7 (76,8-78,5)	62,0 (57,5-66,4)*	78,7 (77,8-79,5)	65,1 (61,4-68,8)*
Private healthcare (ISAPRE)	14,1 (13,4-14,9)	18,1 (14,7-21,9)*	15,0 (14,3-15,8)	17,6 (14,4-21,2)*	14,4 (13,6-15,1)	14,7 (12,1-17,6)*
Other not stated	2,9 (2,8-3,2)	2,3 (1,5 – 3,5)*	2,9 (2,7-3,2)	2,9 (1,8-4,7)*	2,8 (2,5-3,1)	1,6 (1,1-2,3)*

*p-value <0.05 when comparing immigrants with Chileans for each year of analysis

3.2. Acceptability of healthcare services by international migrants in Chile

We found four major themes of relevance to international migrants in relation to acceptability of healthcare services in Chile. These four themes were: administrative barriers to effective access to healthcare, interpersonal and cultural barriers to effective access to healthcare, perceived quality of care, and adequacy of healthcare delivery based on individual and cultural differences. Examples of codes that

emerged from each theme are presented in Figure 3.

Regarding administrative barriers to effective access to healthcare, there were two major areas of preoccupation. Firstly, not having a Chilean visa was a crucial barrier for accessing the healthcare system, even after Decreto 67 that guarantees access to all migrants including those undocumented was created. Secondly, the lack of updated information from many healthcare workers in the public system produced lack of clarity and consistency of care. In terms of interpersonal and cultural barriers to effective access to healthcare, we found four elements of relevance to international migrants. These were the fact that some groups of immigrants don´t fully understand the Chilean healthcare system, which detriments their effective use; perceived stigma and discrimination from some healthcare workers that affects their self-esteem and experience of care; great difficulties with language barriers for those who come from non-Spanish speaking countries like Haiti; and additional communication barriers when healthcare workers use specific technical concepts of local words that do not exist in any other country in the region, even when sharing the same native Spanish language.

In relation to perceived quality of care, there are a variety of experiences from international migrants. We grouped them into positive, neutral and negative perceptions in order to display the range of perceptions of how they feel about healthcare in Chile. Positive perceptions are largely related to the national health policy for migrants. Neutral perceptions recognise the efforts made so far by the country but continues to challenge pending issues like adequate training to healthcare workers on migrants' experiences and needs. Negative perceptions are related to specific services like maternal or mental health care. Migrants challenge the lack of specific, integrated and culturally pertinent services for them based on their perceived needs of healthcare in these areas of delivery. Finally, regarding the adequacy of healthcare delivery based on individual and cultural differences, we found three topics of interest to immigrants: intercultural health training for healthcare workers; intercultural delivery experiences with great attention to intercultural competency of healthcare workers when managing their health needs; and recommendations for improvement, including for example understanding the culture, customs and language of the patient being treated at every stage of the healthcare delivery.

Figure 3. Perceptions of immigrants to Chile about the healthcare system: examples of themes that emerged from the qualitative analysis

Administrative barriers to effective access to healthcare	
Not having a Chilean visa:	"[The Chilean ID/visa] is a huge problem, we did not know at the beginning that we could register at the primary clinic without a visa, so it's difficult ... Then they do not attend migrants, I do not know if they are

	cared for or not, I do not think migrants receive all the care they need" *Immigrant woman, Recoleta borough*
Healthcare workers are not informed:	"What happens is that there is lacking clarity and stability in the healthcare standards of the country and how to adapt them to the reality of every migrant. Health workers are also not fully informed, there is a great amount of lack of information and awareness about what to do, when and how…" *Immigrant women, Arica*
Interpersonal and cultural barriers to effective access to healthcare	
Immigrants don´t understand the system:	"…What happens is that some migrants lack information about the Chilean health system and the benefits it can provide" *Immigrant men, Santiago*
Stigma and discrimination:	"They do not always want to help [immigrants], do you know why? because you cannot communicate, because it is perceived as a problem or a waste of time, because you have to look for the intercultural facilitator and you do not have the tools and it is a risk for everyone, so it is better not to attend to them" *Immigrant women, Antofagasta*
Language barriers:	"The language is a great problem for us Haitians here in the country. It takes us some time to understand Spanish and to understand how people talk here in Chile" *Immigrant men, Recoleta*
Perceived quality of care	
Positive perceptions:	"The Ministry of Health, as you know, did an important job to facilitate access to health for all migrants, regardless of their immigration status, whether or not they had their papers regularized in the country" *Immigrant women, Santiago*
Neutral perceptions:	"There have also been significant training and awareness-raising efforts, which in the beginning was a kind of rejection, a bit of discrimination regarding the arrival of certain migrant groups. It had to do a sensitization work that took us almost two years and there is still much to be done" *Immigrant men, Antofagasta*
Negative perceptions:	"I am worried about the mental health of immigrants, not much is being done, because they suffer sadness,

	they do not pay their salaries, they live discrimination, humiliation, then they are ... these are psychological factors that affect them, in that aspect they are wrong, but they say we are well, we are fine, but in reality, but in reality they are feeling very bad" *Immigrant women, Santiago*
Adequacy of healthcare delivery based on individual and cultural differences	
Intercultural health training:	"Health workers need to know how to care for migrants, each one of us, their needs and health problems, their beliefs and all that..." *Immigrant men, Arica*
Intercultural delivery experiences:	"I think they do not always understand what you do, why you do it... For example, the children's food, breastfeeding, I do not know... We are all different and we need to be listened to more..." *Immigrant women, Iquique*
Recommendations for improvement:	"To achieve a good relationship between health provider and user, in addition to solving the administrative and technical issues previously mentioned, it is essential to understand the culture, customs and language of the patient being treated" *Immigrant men, Arica*

*Codes were back and forward translated from Spanish to English by the authors

4. DISCUSSION

Based on the Universal Health Coverage global initiative, equitable healthcare is of vital importance to many countries. Access to healthcare has been recognised as a relevant determinant of health; however, accessibility and acceptability may vary between vulnerable groups including international immigrants. This study explored indicators of accessibility and acceptability of the healthcare system by international migrants compared to the Chilean-born population. As a means of *accessibility*, we measured healthcare provision entitlement by international immigrants and compared them to the Chilean-born population. For this, we used data from the anonymous nationally representative CASEN survey at different time points, 2013, 2015 and 2017. For *acceptability*, we collected and analysed qualitative data to explore the perceptions of the Chilean healthcare system according to immigrants and based on individual interviews that were conducted in Chile between 2015 and 2017. We found persistent unequal accessibility and acceptability to healthcare services in Chile in detriment of the international migrant population compared to the Chilean-born.

We found a significant gap in no healthcare provision entitlement rates between migrants and Chileans, which grew over time. These findings are consistent across the years of analysis of the CASEN survey and raise concerns of inequitable access to healthcare in Chile based on migration status.

As stated in the past, migration status is a relevant social determinant of health and it is intimately associated with healthcare provision entitlement in Chile. Access to healthcare is the result of a complex net of determinants.[30] It largely depends on how a society is able to create a user-friendly environment for immigrants and to overcome the socioeconomic and the subtle cultural or psychological barriers that may limit people's ability to receive care.[31,32] This study indicated that there are significant differences in accessibility to the healthcare system in Chile by international immigrants compared to Chileans, and that perceptions of acceptability of healthcare are specific to this population and need further exploration.

It is widely accepted that, although those who migrate are often healthier than residents because of the various selection processes they face,[33–35] migrants are usually exposed to several health risks. The vulnerability associated with moving to an unfamiliar environment makes access to prevention and healthcare services a major component of the health response of host societies.[36,37] Immigrants worldwide tend to face individual, socio-cultural, economic, administrative, and political barriers when using health services.[9,38,39] Immigrants, on the other hand, may hold different views and expectations of health and perceived appropriate care, based on experience with the health system in their country of origin.[40] According to Dias et al.,[9] understanding the issues related to migrants' health and their utilization of healthcare services is challenging because of gaps in databases, heterogeneity of immigrant populations, and uncertainty about how migration affects health. More research needs to be conducted on this topic in order to fully understand factors that affect accessibility and acceptability of healthcare services by international migrants in any country in the world.

This study has important strengths but also some limitations. The Casen survey is a large, anonymous, representative survey conducted in Chile every 2 to 3 years. It is well-known and well-accepted by the population living in the country, as it adds value to Chile´s economic progress and social welfare. Given its multi-methods approach, we used two different sets of data that are unrelated to each other. For this reason, only general and exploratory patterns can be proposed from our findings. In relation to the quantitative sub-study, our study was a secondary analysis from a population-based survey that was not focused international migrants; therefore, our findings have some limitations. The question on migration status in the survey was complex and we could only assume that those who report that they were born in a different country were immigrants, but it misses those who might be nationalised in Chile. For this study, we separated the dataset into two groups: those who reported being born in Chile and those who reported being born abroad. This division is based on

country of origin only, ignoring nationality as a relevant additional variable for analysis. Consequently, risk of bias related to this stratification of the dataset for analysis cannot be ignored. Due to the cross-sectional nature of the CASEN survey, we cannot determine whether migration is a cause of poor accessibility and acceptability of healthcare, but we can establish and describe some gaps between immigrants and the Chilean-born that are useful for raising new research questions and hypotheses. Also, findings from the quantitative sub-study cannot be extrapolated to the 15% of the population that did not respond to the CASEN survey. Also, issues related to recruiting hard to reach populations, including undocumented immigrants, will need to be considered by this survey in the future[77, 78]. Regarding the qualitative sub-study, it can only serve as an exploration of perceptions of international migrants related to healthcare delivery in Chile, and findings should not be generalized. In contrast, some qualitative findings might be meaningful and transferable to other similar settings in which immigrants face challenges in the way care is structured, planned and delivered by a formal healthcare system. In fact, some of our qualitative findings are consistent with other studies in the region and the world, suggesting that acceptability of healthcare by immigrants might represent a global public health challenge[36-39].

This study produced novel knowledge on the topic of accessibility and acceptability of healthcare by international migrants and how they compare to local Chileans. Based on the UHC framework, this analysis is useful to inform researchers and policy makers in Chile and Latin America about the most frequent constraints to accessibility and acceptability of the available healthcare system for migrants in the country. Such findings could also inform researchers and stakeholders worldwide, given that Latin Americans have in past centuries and nowadays migrated to several countries and continents of the world. Future studies could expand this investigation by adding more covariates to the quantitative analysis, analysing longitudinal data to compare accessibility to healthcare between international migrants and locals, and explore differences in acceptability by country of origin, gender, socioeconomic status, ethnicity, legal status and length of stay in the receiving country, and other sensible social dimensions of care.

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Authors' contributions

The four authors made substantial contributions to conception and design, analysis and interpretation of data, drafting of the manuscript, and final approval of the version to be published.

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