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Incorporating migrants into National COVID-19 Vaccination Plans in Latin America: A comparative analysis of policies in seven countries

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ABSTRACT

Vaccination against COVID-19 is an essential public health tool for pandemic control. Inclusion of migrants in COVID-19 vaccination is not only ethically necessary from a right-to-health perspective but also technically indispensable for disease control. This study aimed to characterize the inclusion of international migrants, refugees, and asylum seekers in COVID-19 vaccination policies in Latin American countries that have the greatest recent increase in the reception of migrants.

We conducted a content analysis of public policy documents issued between March 11, 2020, and June 30, 2022 by the Ministries of Health of seven countries: Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico and Peru. Documents were located through Ministries of Health web pages, references in scientific literature, and the Pan American Health Organization's Information Platform on Health and Migration in the Americas. A content analysis was performed of the documents that were located, along six dimensions: migrants' right to vaccination, temporality of vaccination, administrative discretion, policies to facilitate access, language or cultural considerations, and normative, ethical or technical justifications provided.

Eighty-six public policy documents were reviewed. Their contents showed that none of the countries explicitly excluded migrants from vaccination, nor did they explicitly define restrictions on this population. One barrier that was detected was to require identity documents in order to be vaccinated or to receive a vaccination certificate, which could be difficult for migrants to obtain. Few countries defined actions to facilitate or promote the vaccination of migrants. The documents that mentioned justifications for vaccinating migrants presented reasons that were mainly based on the recognition of the right to health, the principle of non-discrimination and equity.

The countries studied generally had inclusive policies but were limited in terms of dealing with potential barriers to access. The lack of mechanisms to guarantee the right to health is a limitation that countries in the region should address.

1. Introduction

The history of COVID-19 vaccination is also the history of the reproduction of inequity, both globally and within countries, as well as the history of government efforts to reduce that inequity (Tatar et al., 2021; Javed and Chattu, 2020; Singh and Chattu, 2021). The challenges of distributing vaccines worldwide began to be discussed in late 2020 and early 2021, when the first COVID-19 vaccines became available on the international market (Peiris and Leung, 2020). Latin America (LA), and low and middle-income countries in general, were faced with the need to compete for vaccines in the context of widespread international shortages and initial hoarding by high-income countries, some of which acquired doses very early to cover up to four times the size of their population (Wagner et al., 2021; Katz et al., 2021). This scenario, coupled with the logistical challenges involved in mass vaccination, led most countries to design National Vaccination Plans (NVPs), which

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defined the stages, criteria and principles (ethical and others) for progressive access to vaccines (Emanuel et al., 2020; Roope et al., 2020; National Academies of Sciences, Engineering, and Medicine, 2010; McClung et al., 2020).

Most countries in the world established prioritization processes for access to vaccines, in which population groups were prioritized mainly according to their age, health conditions and occupation (Matrajt et al., 2021). In countries with lower initial vaccine availability, given the need to maximize the socio-health impacts of the vaccines in the face of an initial global shortage (especially critical in low- and middle-income countries), this process was even more sensitive, since it was not clear when the non-prioritized groups would be able to receive vaccines (Bubar et al., 2021).

The definition of this prioritization was not a simple process for governments. In many cases, internal political and social tensions led to including or omitting population groups, as well as modifying previously-defined orders and making quite a few adjustments to the general execution of NVPs (Chapman et al., 2022). Although in some cases these modifications were due to the emergence of new scientific evidence of a higher risk of complications and death for certain population groups, other cases were influenced by geographic/geopolitical (Bollyky et al., 2021), ethical, political and environmental considerations. Additionally, inclusion not only refers to the need to prioritize groups, which was not always possible or justified, but also to the identification of social groups that might need a differential approach to ensure effective access to vaccines.

By the time COVID-19 arrived in LA, migration had already been a major challenge for several governments and health systems in the region, for many decades. Historically, migratory flows in LA have varied in their composition and intensified during some time periods. Over the last decade, in addition to traditional migration flows –such as emigration to the more economically developed countries of the Southern Cone (Chile and Argentina) by people from Peru, Bolivia and Ecuador, from Nicaragua to Costa Rica and from Latin American countries to the United States and Spain— many have also migrated from Venezuela, Haiti and Central American countries, as well as from outside Latin America (International Organization for Migration (IOM), 2020; Giorguli-Saucedo et al., 2016; International Organization for Migration (IOM), 2021).

The mobility of these flows decreased during the first months of the pandemic due to border closures and other restrictions. This situation led to increased vulnerability of migrants, who faced not only the effects of the virus but also of the control measures (Kondilis et al., 2021, Bojorquez-Chapela et al., 2021, OECD, 2020). In this sense, the COVID-19 pandemic was also a test for the policies of inclusion and health care for migrants in most of the countries of the region. The migratory tradition, as well as the characteristics of health systems and public health programs may have influenced the inclusion of migrants in NVPs, impacting on the degree of access, the time at which migrants were incorporated to the plans, and the requirements or barriers to accessing COVID-19 vaccines (Fernandez-Nino et al., 2020).

Including migrants in NVPs regardless of their migratory status is essential to protect their lives, and also corresponds to international commitments (Asamblea General de las Naciones Unidas, 2016, United Nations, 2018). In addition, from a public health point of view, their inclusion has been essential to control the pandemic, especially to reduce transmission and mortality among people belonging to risk groups (some of whom are migrants) and to protect health systems (Matlin et al., 2022). In this sense, it is valuable to explore the inclusion of the migrant population in NVPs in LA countries. Thus, the objective of this article was to characterize the inclusion of international migrants, refugees, and asylum seekers in COVID-19 vaccination policies during the first two years of the pandemic, in countries with the largest increases in the number of migrants in previous years. With this, we aim to provide a descriptive analysis that could serve as an empirical baseline for future analytical research, mapping out how international migrants, refugees, and asylum seekers have been accounted for in vaccination policies in COVID-19 response.

2. Material and methods

2.1. Study design

A content analysis was conducted of public policy documents on COVID-19 vaccination that were issued by the Ministries of Health at the national level in seven countries: Brazil, Chile, Colombia, Costa Rica, Ecuador, Mexico and Peru. These countries were selected because they had the greatest growth in their incoming migrant population between 2015 and 2020, with increases of 66.7%, 138.9%, 1133.3%, 325.0%, 83.3%, 12.5% and 640.0%, respectively, in the international migrant population between 2015 and 2020 (Organización Internacional para las Migraciones, 2021).

For the purpose of this analysis and following the recommendation by the International Organization for Migration (IOM), the present study considered migrants to be any person who moved across international borders to permanently change residence, regardless of the reason for migrating. Thus, this study included regular and irregular migrants, those in the process of regularization, and refugees and asylum seekers. It did not include internally displaced persons or migrants with the same nationality as the receiving country, such as deported or returned nationals, since in principle they have the same rights and access routes to health services as other nationals in the countries.

2.2. Criteria for inclusion and exclusion of public policy documents

The documents that were included were: 1) public policy documents (plans, manuals, guides, administrative acts —e.g. decrees, resolutions, circulars—, official communications from the Ministry of Health or their equivalent, and technical documents related to national COVID-19 vaccination plans; 2) issued between March 11, 2020 (date on which the pandemic was declared by the World Health Organization) and June 30, 2022; 3) issued by the Ministries of Health at the national level; and 4) including information on COVID-19 vaccination policies.

The documents that were excluded were those that, based on the document review, were determined to be: 1) technical documents exclusively related to the provision of supplies for implementing the vaccination policy; 2) documents that exclusively adopted guidelines or manuals on the clinical or operational process of vaccination (e.g., preparation of vaccines, syringes, clinical administration procedures, cold chain, distribution, organization of the logistics chain, etc.); 3) documents that exclusively discussed potential adverse events to biologics (PVAE or ESAVI or reporting potentially related syndromes), programmatic errors and decisions to temporarily suspend administration; 4) technical notes on the joint administration of other vaccines or commercial guidelines on biologicals issued by the Ministries of Health; 5) documents that defined or adjusted the vaccine schedule and the schedule for risk groups, including definition of new boosters, changes in periods or intervals between vaccination doses; 6) meeting minutes or press releases; 7) prioritization of groups for boosters, since this depends on specific clinical criteria and assumes that the groups in question had been previously vaccinated according to the initial schedule.

2.3. Document search method

Three search strategies were used: 1) a review of the web pages of the Ministries of Health at the national level in each country, using their search engines when they existed, and an exhaustive search of the sections on public health and COVID-19 or the National Vaccination Plan specifically, when it existed; 2) a literature search in MEDLINE on COVID-19 vaccination of migrants in the countries studied using the key words "COVID-19 AND vaccin* AND migra* AND [Country name]". For this second strategy, the abstracts of the resulting articles were reviewed

and the full texts of those that discussed national vaccination policies were read to identify whether there were references to relevant public policy documents; 3) a review of the dashboard by the PAHO Information Platform on Health and Migration in the Americas, which maps policy, legal and regulatory frameworks (https://www.paho.org/es/migracion-salud-americas/salud-migracion-americas-plataforma-informativa#MarcosPoliticos), entering "vaccination" and "COVID" as topics and with a restriction to documents having a national scope for each of the countries to be analyzed.

2.4. Analysis

For the analysis of the policy contents, five dimensions of migrants' inclusion were considered. Some of these were adapted from the MIPEX index of migrant inclusion in health policies (Ingleby et al., 2019) and some were added as they were considered relevant to the region. The dimensions were: 1) the right to vaccination for migrants (explicitly included, implicitly included, excluded); 2) temporality of vaccination (whether migrants and local population in the country who were in the same age group or who had another prioritization condition had access to vaccines at the same time); 3) administrative discretion and documentation (whether vaccination required documents or other requisites that acted as barriers to access for migrants but not for non-migrants); 4) existence of policies designed to facilitate access to vaccination for migrants (e.g., information campaigns, information sites, vaccination sites, etc.); 5) consideration of language or culture to facilitate access to vaccination for migrants; and 6) normative, ethical or technical justifications for the incorporation of migrants into NVPs, or a lack thereof.

For each of these dimensions, this investigation considered whether there were differences according to type of mobility, that is, differences in the inclusion of regular and irregular migrants, or between immigrants, migrants in transit, asylum seekers and refugees. This study also assessed whether there were differences in inclusion based on other migrant characteristics that were not taken into account for the non-migrant populations, such as age groups, sex or other conditions.

First, the strategies for reviewing the documents and extracting information were standardized. An initial set of working definitions for each dimension and other aspects of interest was developed, and each author read the policy documents of one or more countries and filled a table with their content along each dimension and aspect of interest. These initial extractions were then discussed among all authors, in order to clarify ambiguities in the definitions and to harmonize the data extraction methodology. Each researcher then reviewed the documents for one particular country, evaluated the content of each of the dimensions mentioned and developed a synthesis for the country. All the researchers reviewed the results of that first round of analysis in their entirety and discussed the similarities and differences between the countries. Subsequently, one researcher drew up a list of conclusions based on these similarities and differences and these conclusions were reviewed, complemented, and discussed by all the researchers. The following section summarizes the results of these joint conclusions for the dimensions considered.

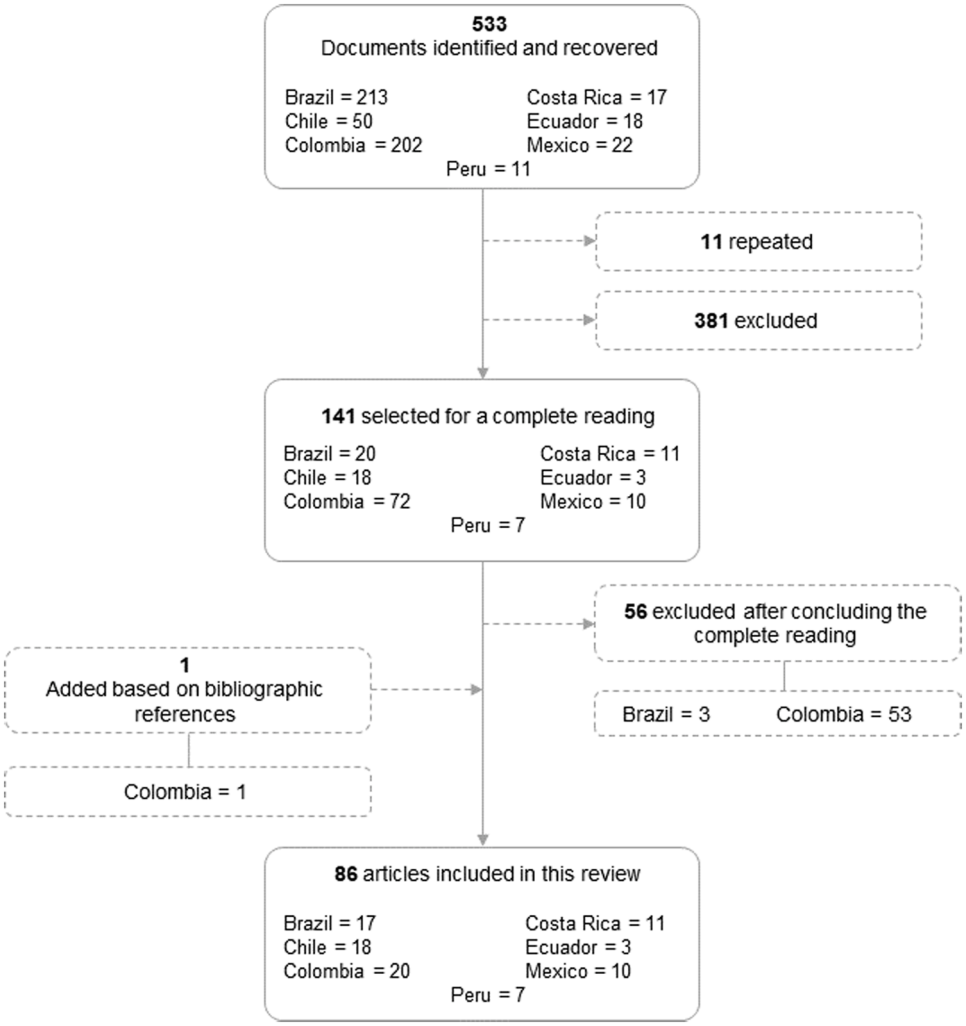

Fig. 1. Flowchart of selection process of documents analyzed.

3. Findings

The initial search identified 533 documents. After eliminating duplicates and ineligible documents, 141 were selected for a full reading. Of these, 86 met the selection criteria and were included in the analysis (Fig. 1). The list of the documents analyzed is presented in the supplementary material (*see supplementary Table 1*).

Table 1 provides a synthesized overview of migrant inclusion across different national COVID-19 vaccination policies in the seven countries studied.

Regarding the right to vaccination, the first relevant finding was that none of the countries studied explicitly excluded migrants from their COVID-19 NVP. In the case of Brazil, the inclusion was implicit, stating that vaccination would cover all persons present in the country during the vaccination campaign, without mentioning migratory status as an exclusion criterion, and explicitly mentioning "refugees in shelters" as a group designated for special attention (Ministério de Saúde de Brasil, 2021). Mexico, Colombia and Peru initially did not mention migrants, but rather, they were always included implicitly, i.e., in Colombia, the target population was defined as "the inhabitants" of that country. These countries later explicitly mentioned the inclusion of migrants. For example, vaccination policy documents in Mexico initially did not mention migrants (Gobierno de México, 2020), while version 5.1 of the Mexican NVP (Gobierno de México, 2021) referred to migrants as one of the groups to be prioritized. It also indicated that migratory status should not prevent access to the vaccine, and that migrants in irregular conditions could access the vaccine without this posing a risk to their remaining in the country. Similarly, Colombia went from not mentioning migrants in the first version of its NVP (Ministerio de Salud de Colombia, 2021) to mentioning them in a subsequent decree (Gobierno de Colombia, 2021). Peru did not explicitly mention the migrant population in its first NVP, while it included Venezuelan immigrants as a target population in the strategy for its plan for preparedness and response to a possible second pandemic wave (Ministerio de Salud de Peru (MINSA), 2020). In Chile, a supplement to the vaccination guidelines issued in 2021 (Ministerio de Salud de Chile, 2021) specified that migrants with regular status or in the process of regularization would have access to the vaccine, implicitly excluding migrants with an irregular status and explicitly excluding tourists. Something similar happened in Costa Rica, where early versions of the NVP did not mention migrants, while the sixth version included migrants with regular status (Gobierno de Costa Rica, 2021), who had to present a document to prove their migratory status or that their immigration process was in progress. The plan also had an exception for elderly migrants with irregular status who showed evidence of roots in the country. Subsequently, in version 9, all irregular migrants with evidence of roots were also included (Gobierno de Costa Rica, 2021), and later versions included migrants with an irregular status who could prove they had been in the country for at least two months, as well as tourists (Gobierno de Costa Rica, 2022).

Thus, as countries updated their vaccination policies, they generally moved towards greater openness to the right of migrants to receive the vaccine. As mentioned in the previous paragraph, in some cases they moved from not mentioning to explicitly including them. In Colombia, decree 1621 of 2021 (Gobierno de Colombia, 2021) modified that country's NVP to include people in border regions as part of the target population in the COVID-19 National Vaccination Plan. Similarly, Colombia's resolution 577 of 2021 was issued to include in the NVP foreigners who were involved in diplomatic missions, their families and "dependent inhabitants in the Colombian territory, as well as foreigners." (Ministerio de Salud y Protección Social de Colombia, 2021). In contrast, in the case of Ecuador, from the conceptualization of the plan, populations in mobility situations, resident foreigners, and irregular migrants were explicitly included (Ministerio de Salud Pública de Ecuador, 2021a).

Regarding temporality, there was no evidence that the design of the policies had left the vaccination of migrants for a later time than local populations, although in some cases, such as the case of Colombia mentioned above, subsequent and explicit updates of the NVPs were required to administratively apply the inclusion. In the case of Mexico, its vaccination policy document explicitly stated that the migrant population and other priority groups were guaranteed access at the time when they should be vaccinated according to age, life condition and comorbidity, under the same conditions as the national population (Gobierno de México, 2022). In addition, it is worth noting that the documents reviewed showed that the timing of vaccines in all the

Table 1
Comparison of Migrant Inclusion in National COVID-19 Vaccination Plans by Country.

Country	Right to Vaccination for Migrants	Temporality of Vaccination*	Administrative Discretion and Documentation	Policies to Facilitate Access	Language/ Cultural considerations	Normative/ Ethical/ Technical Justifications
Brazil	Implicit, then explicit for refugees	Migrants vaccinated initiated at the same time as for non-migrants	Not specified	Migrant shelters targeted	None mentioned	Not mentioned
Mexico	Initially not mentioned, then explicit	Migrants vaccinated initiated at the same time as for non-migrants	CURP required for digital certificate	Subsequent inclusion without documents	None mentioned	Inclusion, non-discrimination
Colombia	Initially not mentioned, then explicit	Migrants vaccinated initiated at the same time as for non-migrants	Identity document initially required, later facilitated	Vaccination at borders, no ID for some groups later.	None mentioned	Solidarity, human welfare, equity
Peru	Initially not mentioned, then Venezuelan immigrants explicitly included	Migrants vaccinated initiated at the same time as for non-migrants	Not specified	Not specified	None mentioned	Human rights, solidarity
Chile	Regular status or in regularization process, others implicitly excluded	Migrants vaccinated initiated at the same time as for non-migrants	Valid identity document required	Not specified	None mentioned	Not mentioned
Costa Rica	Initially not mentioned, then included with regular status, later all migrants	Migrants vaccinated initiated at the same time as for non-migrants	Regular status or evidence of roots required initially, later more inclusive	Not specified	None mentioned	Not mentioned
Ecuador	Explicitly included population in mobility situations, resident foreigners, and irregular migrants	Migrants vaccinated initiated at the same time as for non-migrants	Strategies to facilitate registration for irregular migrants	Vaccination operations at migrant concentrations	None mentioned	Human rights

* All dimensions of the study, including temporality, are based on what is established in the policy design. It's important to note that what is set out in the policy design, including the timing of vaccinations for migrants and refugees, may not align with the final implementation, in this case due to effective access barriers and implementation failures.

countries adhered to risk criteria (age groups or health conditions) and occupation (priority was given to essential workers such as health workers and others).

Despite the inclusion of migrants in most of the NVP analyzed, administrative barriers to vaccination could be detected in the documents, especially for irregular migrants. Public policy documents in four of the seven countries (Chile, Colombia, Costa Rica and Mexico) stated that access to vaccines or vaccination certificates required the presentation of a valid identity document. For example, in Colombia, identity documents issued by that government that reflected that the migrant's presence there was legal were initially required (Gobierno de Colombia, 2021). In Chile, an identity document was required to register for vaccination. In the case of foreigners this could be a passport issued by another country, but for migrants who did not have documents from their country of origin the requirement created the possibility that they could be excluded from registering in the system (Ministerio de Salud de Chile, 2022). In Costa Rica, presentation of a document guaranteeing regular status initially was required, and its presence on a pre-existing list or in the local micro-planning had to be verified (Gobierno de Costa Rica, 2021). In all cases, migrants had to have their data updated in the EDUS (official application of the Costa Rican Social Security Fund), for which those with regular status had to identify themselves or register with the corresponding health area (Gobierno de Costa Rica, 2021). When irregular migrants were included, involvement at the local level was needed to determine whether the migrant had "roots" based on information from the social security agency. For a while, each case was analyzed by the local and regional level to allow access to vaccines (Gobierno de Costa Rica, 2021). In Mexico, the CURP (unique ID number issued by the government) was required to obtain a digital vaccination certificate, which implied that people with irregular migratory status would not have been able to obtain this certificate (Gobierno de México, 2022).

These administrative barriers were later addressed in some of the cases and may have constituted some degree of administrative discretion. For example, in Colombia, the request for an identity document or the need for prior registration constituted a barrier. In response to it, resolution 1255 of 2021 (Ministerio de Salud y Protección Social de Colombia, 2021b) and subsequent resolution 391 of 2022 (Ministerio de Salud y Protección Social de Colombia, 2022) allowed people to register for vaccination without an identity document so that the NVP would benefit more people, which could have also facilitated the vaccination of migrants. For its part, and with the support of international cooperation, Ecuador established strategies to register migrants who still had an irregular status in order to facilitate registration even in the absence of documents (Ministerio de Salud Pública de Ecuador, 2021). In Chile, according to the description of the vaccination registration system people could register to receive the vaccine regardless of their migratory status, as long as they had a valid identity document from their country of origin (Ministerio de Salud de Chile, 2022). For its part, Mexico specified that not having official identity documents would not constitute an obstacle to vaccination, and indicated that when this was the case, the criterion of self-identification would be accepted, with the possibility of generating a unique identifier to facilitate the procedure (Gobierno de México, 2022).

However, administrative barriers, while significant, constitute only a portion of the potential challenges to accessing COVID-19 vaccines. Migrants and refugees may face additional hindrances, including limited knowledge of their healthcare rights and the pathways to access medical services. The availability of these services in rural and dispersed areas may also be a limiting factor, along with the possibility of discrimination (Bojorquez-Chapela et al., 2021, Fernandez-Nino et al., 2020). However, these barriers were not within the purview of this study, as it was focused on the design of policy rather than its execution or the structural determinants of healthcare inclusion for migrants.

Regarding policies to increase the inclusion of migrants in vaccination, decisions were made in Colombia that were aimed at subgroups, such as opening vaccination to pregnant women regardless of their migratory status and without the need for an identity document (Ministerio de Salud y Protección Social de Colombia, 2021c). This inclusion was explicit as of July 2, 2021, while for the rest of the migrants vaccination without an identification document was not permitted until December of that year (Gobierno de Colombia, 2021). According to the documents, at least three countries also implemented vaccination operations at sites where migrants were concentrated, including migrant shelters in Brazil (Ministério de Saúde de Brasil, 2021) and Ecuador (Ministerio de Salud Pública de Ecuador, 2021b) and the border in Colombia (Gobierno de Colombia, 2021, Ministerio de Salud y Protección Social de Colombia, 2022). The remaining four (Chile, Costa Rica, Mexico and Peru) did not mention this type of actions in the public policy documents that were reviewed. In addition, none of the documents reviewed mentioned the consideration of culture or language in vaccination campaigns, and therefore, based on the documents reviewed, none of the seven countries seems to have adapted the health system to facilitate access to migrants.

Lastly, in four of the seven countries the motivations presented in the documents for explicitly and/or implicitly including migrants in the NVPs were not only epidemiological. In the case of Brazil, Costa Rica and Chile, no mention was made of justifications for vaccinating migrants, but this is in accordance to the scarce mention of migrants in the policy documents revised. In Colombia, Mexico, Ecuador and Peru, the reasons for inclusion given in the document were international treaties related to human rights (IACHR), the right to health and the rights of migrants. In both Colombia and Peru, the common ethical justification for ensuring universal and free vaccination was based on principles of solidarity, human welfare, efficiency, transparency and equity. Meanwhile, the Mexican government placed special emphasis on the principle of inclusion and non-discrimination to promote human welfare.

4. Discussion

According to the results herein, the seven Latin American countries studied had an inclusive COVID-19 vaccination policy, in the sense that they did not prohibit migrants from accessing vaccines from the outset, a situation similar to that of most countries in the world (International Organization for Migration (IOM), 2021). Moreover, some countries increased inclusion over time by updating their initial NVPs to explicitly mention migrants or by addressing previous or emerging administrative barriers to the process.

A relevant aspect to discuss is whether the explicit mention of migrants in these documents has been a necessary and/or sufficient condition to guarantee inclusion. By stating that all persons present in the national territory would be vaccinated, or by not establishing exclusions based on migratory status, the NVPs would in principle seem to guarantee the migrants' access to vaccines on an equal footing with the local population. However, it can also be argued that the explicit mention is important to identify vulnerable populations and to prevent access barriers and health inequities. Mentioning a population such as irregular migrants in an NVP or documents that are derived from it could make it easier for decision-makers and health care workers to be aware of the multiple barriers that this population could experience, and to strategically address the differential measures that should be taken to guarantee their effective access. At the same time, as the IOM report (International Organization for Migration (IOM), 2021) points out, in practice, access could occur independently of an explicit declaration of access.

As has been observed by other studies on migrant access to health services during the pandemic in LA and other regions (International Organization for Migration (IOM), 2021, Bojórquez-Chapela et al., 2021), this analysis shows that the main barriers that are apparent in public policy documents have been administrative. In nearly all countries, identity or legal papers for remaining in the country were requested that were beyond the reach of migrants with an irregular

status, and to which regular migrants only would have access after completing a process that could have taken a long time under pandemic conditions. Solving this administrative problem would be an important step to eliminating the implementation gap in policies that are inclusive on paper but may not be so in practice. In the same vein, the fact that few countries had specific strategies to promote or facilitate the vaccination of migrants shows that this population continues to be overlooked by health policies in the region. Thus, while progress in the process to document migrants favors access to services and social programs, it should not be a barrier to public health interventions, and much less in the midst of a health emergency.

Lastly, another issue related to the implementation gap that would be useful to explore is the inconsistencies detected in the public policy documents, such as the description of the vaccination registry system in Chile (Ministerio de Salud de Chile, 2022), which seemed to allow people to register regardless of their migratory status, while the NVP did not include irregular migrants.

The main limitation of this study is that it only deals with public policy texts, and no evidence was analyzed that would enable drawing conclusions about the implementation of these policies. Given the relevance of the topic, data would be needed on the number of migrants vaccinated to allow comparisons of the vaccination rates between migrant and non-migrant populations, in order to evaluate equity in access to vaccines. Nevertheless, as of the date that information was collected for this article, none of the countries studied had public data on vaccination coverage among migrants. Similarly, our analysis was based only on policy documents without including press releases or scientific or gray literature as primary sources. This could explain the differences in the results found in a recent review on vaccination of Venezuelan migrants (Perez-Brumer et al., 2021). Future analyses could also consider the experiences that migrant populations have had with access to COVID-19 vaccines, as well as extend the analysis to other countries in the region.

Our exploration of the similarities and differences in the vaccination policies of the seven Latin American countries reveals a complex tapestry of public health responses to the needs of migrants. While most of countries displayed a foundational commitment to inclusivity, the extent and nature of their administrative processes for vaccine access varied significantly. These disparities highlight opportunities for intercountry learning, where strategies that effectively reduce administrative barriers can serve as a model for others. Furthermore, the explicit inclusion of migrants and the subsequent adjustments to policy in response to administrative challenges provide valuable insights into the proactive measures necessary for equitable healthcare. By examining these practices, countries can learn from one another, adopting successful tactics and thus enhancing the practical implementation of inclusive policies. This reciprocal examination not only strengthens individual national responses but also contributes to a more cohesive regional approach to public health crises.

The findings herein are similar to what has been observed by other studies of migrant inclusion in NVPs around the world (Bojórquez-Chapela et al., 2021). Perez-Brumer et al. (Perez-Brumer et al., 2021) analyzed the inclusion of Venezuelan migrants in COVID-19 vaccination in LA and found a lack of actions to facilitate their access to these vaccines. As in the present study, these authors identified administrative barriers as a central problem, mentioning that access could be limited by "ambiguous policies" (contradictions between the right to access regardless of migratory status and the documents requested). Likewise, these authors pointed out that ambiguities about eligibility for vaccination have meant that some Venezuelan migrants have not known that they had access, even when they did. This is another important aspect related to the adequacy of health policies for migrants and is consistent with our finding that the countries studied took very few measures to promote or facilitate access to vaccines for these populations. Nonetheless, unlike the present study, it is worth noting that the above analysis included press releases that did not have binding power, and that their observation period was limited to June 2021, which prevented them from observing the progression in including the migrant population in the COVID-19 vaccination programs in the countries analyzed. In future studies it would be interesting to explore if these aspects regarding COVID-19 vaccination are similar to health policies directed to other health issues.

5. Conclusions

The LA countries studied had policies for the vaccination of migrants that were generally inclusive, but limited attention was paid to the potential barriers to access, and especially to the problem of people who had an irregular status or who did not have documents for their remaining in the country. The lack of mechanisms to ensure the ability to exercise the right to health in this context is an important limitation that the countries in the region should address.

CRediT authorship contribution statement

Ietza Bojorquez-Chapela: Conceptualization, Methodology, Data curation, Formal analysis, Investigation, Writing – original draft, Writing – review & editing. **Maylen Liseth Rojas-Botero:** Conceptualization, Methodology, Data curation, Formal analysis, Investigation, Writing – review & editing. **Diana Patricia Marín:** Investigation, Writing – review & editing. **María Alejandra Riveros:** Investigation, Data curation, Writing – review & editing. **Aura Yanira Roa:** Investigation, Data curation, Writing – review & editing. **Julián Alfredo Fernández-Niño:** Conceptualization, Methodology, Data curation, Formal analysis, Investigation, Writing – original draft, Writing – review & editing.

Declaration of Competing Interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: Julián A. Fernández-Niño was director of Epidemiology at the Colombian Ministry of Health and Social Protection from July 2020 to March 2022. This investigation was carried out when he was no longer a civil servant at this Ministry. However, this author did not review the documents from this country, and currently has no connection to the Colombian Ministry or government. All the other authors declare no conflicts of interest.

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Supplementary materials

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