Access to health care for undocumented migrants in Switzerland: Insights and Outlooks

Blanc, Louis Bertrand Maximilian

How to cite

BLANC, Louis Bertrand Maximilian. Access to health care for undocumented migrants in Switzerland: Insights and Outlooks. Doctoral Thesis, 2023. doi: 10.13097/archive-ouverte/unige:172022

This publication URL: https://archive-ouverte.unige.ch/unige:172022
Publication DOI: 10.13097/archive-ouverte/unige:172022

UNIVERSITÉ
DE GENÈVE

FACULTÉ DE MÉDECINE

DOCTORAT EN MEDECINE

Thèse de :

Louis Bertrand Maximilian BLANC

originaire de Fribourg (FR), Suisse

Intitulée :

Access to health care for undocumented migrants in Switzerland: Insight and Outlooks

La Faculté de médecine, sur le préavis du Comité directeur des thèses, autorise l'impression de la présente thèse, sans prétendre par-là émettre d'opinion sur les propositions qui y sont énoncées.

Genève, le 11 juillet 2023

Thèse n° **11181**

Cem Gabay
Doyen

N.B. - La thèse doit porter la déclaration précédente et remplir les conditions énumérées dans les "Informations relatives à la présentation des thèses de doctorat à l'Université de Genève".

Access to health care for undocumented migrants in Switzerland: Insight and Outlooks

Thèse présentée à la Faculté de Médecine
de l'Université de Genève pour obtenir le
grade de Docteur en médecine
par
Louis BLANC

Thèse préparée sous la direction du Professeur Jean-François Etter

April 2023

Résumé

Les sans-papiers en Suisse forment un groupe de population important tant en nombre que pour le fonctionnement de l'économie suisse. Leur accès au système de santé reste sous-investigué et les données disponibles pointent vers de nombreux défis pour que les besoins en santé de cette population soient couverts. Ce travail évalue l'accès des sans-papiers au système de santé en Suisse au travers d'entretiens d'experts, ainsi que par une revue de la littérature scientifique, de documents administratifs et d'articles de presse. Les résultats obtenus, cartographiés selon un modèle d'accès aux soins, d'après une méthode établie par Levesque (2013), mettent en évidence de nombreux obstacles pour accéder au système de santé pour les sans-papiers. Les résultats décrivent les barrières rencontrées, telles que la peur d'être dénoncé, des problèmes financiers ou des problèmes de communication. Cependant, le manque de données solides ne permet pas de quantifier et de généraliser ces phénomènes. Des solutions sont discutées.

Abstract

Index

1 Introduction

In Mai 2020, undocumented migrants in Switzerland experienced a short span of international media attention as thousands queued in front of a food bank in Geneva due to a sudden breakdown of the informal job market following the COVID-19 lockdown[1]. However, as quickly as these people got into public awareness, they got out of the public mind. This acute situation put the spotlight on a chronic social and public health problem in Switzerland.

An estimated population of 58'000 to 300'000 undocumented migrants are living in Switzerland[2,3]. Put into context, this number is roughly equivalent to the population of one of the six major cities in Switzerland, or about 0.7-3% of the Swiss population[4].

Undocumented migrants face many barriers to access health care, their precarious living conditions expose them to particular vulnerability for communicable diseases, injury, poor mental health, maternal and child health problems, resulting in high individual disease burden and public health problems as well as expenses[5–11]

In Switzerland, only 2 out of 26 cantons have health services geared towards undocumented migrants specifically (and other vulnerable populations). In the other regions, non-governmental organizations try to offer patients support either through counseling, vouchers for the public health network or by referral to informal networks of volunteering physicians[12].

Given the fact that in Switzerland, the health care infrastructure is well developed and broadly available, that the legal framework of constitution and Federal law entitle *all* residents to health care[13,14] and that undocumented migrants nevertheless face barriers to access it, we assume that social determinants are a key to access the health-care system.

Whilst individual analysis of each of the aspects might produce understanding of a part of the problem, we suggest exploring the subject by a review of the literature, interviews with experts and stakeholders and information synthesis using the facet-methodology, a qualitative approach designed to apprehend a complex research question with mixed methods from different angles[15,16].

In this paper we aim to provide an exploration of key facets of access and barriers to health care for undocumented migrants in Switzerland. We describe barriers to health care that are explicitly mentioned in the literature and in interviews, and investigate the included research material for implicit, non-obvious barriers and put them into the context of the Swiss health care system. The gathered evidence is be mapped out against a patient-centered framework[17], which is congruent with a human rights definition of access to health care[18,19]. Through the different perspectives we take to look at the issue, we want to outline possible solutions and to enable health care providers, policy makers, public health planners – and the general reader to broaden and sensitize their awareness of the topic.

What this paper adds:

To our knowledge no peer-reviewed study has so far investigated access to health care for undocumented migrants in Switzerland along a multidimensional, patient-centered framework. We provide a broad qualitative overview of barriers to health care and situate them in the context of the Swiss health care system.

2 Methodology

2.1 Facet Methodology

Our perspective is based on the ‘Facet Methodology’ by Mason et al., which is a holistic approach in qualitative study designs, specifically adapted for complex research questions in “messy” environments[15]. Its main goal is to generate insights into key facets that seem to be inseparable parts of the research question.

An intriguing epistemological premise of the facet methodology is, as Mason puts it, that “[…] insights do not necessarily vary in direct relation to the size or representativeness of sample […] ”[15]. Thus we hope to produce insight, rather than a “[…] comprehensive, or census-style knowledge or coverage […]”[15] of the topic. In other terms: we try to depict a broad complex image synchronically from various angles to enable a general comprehension of the topic. The facet method suggests the image of a gemstone (representing the research issue) and its facets (or surfaces and cuts) parts of the research issue and different angles we can take to explore the topic. Mason considers the facet method to be an anti-reductionist approach[16].

We identified the following as key facets of the research question: “Definition of undocumented migrants”, “How many undocumented migrants live in Switzerland?”, “the socio-demographic characteristics of undocumented migrants in Switzerland”, “their Health and Epidemiology”, “known barriers to health care for undocumented migrants in the international context”, “a short insight in the perception of irregular migration in research”, “media and politics”, and “the social determinants of access to health care and equity”. These topics are all an inseparable facet of the diamond, but offer a look at it through different angles[15,16]. To explore the facets, we gathered evidence from the peer-reviewed literature, news media, Swiss Federal Institutions like the Federal Statistics Office or the Federal Office of Public Health and Grey Literature, e.g. from Non Governmental Organizations. Search-engines used were Pubmed and Google Scholar, as well as the Google News filter and standard Google search. These facets are:

2.2 Interviews

We conducted seven semi-structured Interviews with experts from NGOs, public hospitals and private medical practices either in presence, by phone or by video-conference between January 2018 and Mai 2020. We summarized the interviews and coded them deductively according to the predefined thematic field. Spontaneously emerging topics were inductively coded[15]. To cover the more clinical part of the questions, interviews were conducted with head physicians at the Geneva University hospital who work directly or indirectly with UM, as well as with two physicians in the German part of Switzerland who are working for NGOs with documented migrants and/or accept UM in their private practice. Further, we conducted one interview with a nurse who works on the edge of clinical and administrative work for an NGO, and two interviews with (administrative) consultants at two different NGOs in the German part of Switzerland. While literature is available for barriers intrinsic to UM in the European context, we estimated that their individual barriers might not be different from those already identified, however, we supposed that the identified stakeholders could well complement the written literature by means of concrete examples of particular types of barriers.

2.3 Defining access to health care

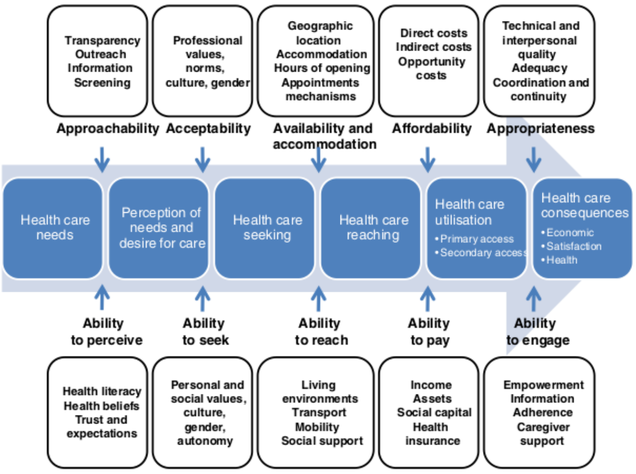


Figure 2 A conceptual framework of access to health care.

Illustration 1, (Levesque JF et al., 2013): *Different dimensions of access to health care are influenced by determinants inherent either to the provider side, the demand side, or interdependent.*

In order to identify barriers to health care among the included literature, we followed Levesque et al.'s Framework for patient-centered access to health care, which is defined as follows:

> *"[…] we view access as the possibility to identify healthcare needs, to seek healthcare services, to reach the healthcare resources, to obtain or use health care services, and to actually be offered services appropriate to the needs for care.*"[17]

This definition of health care access this framework suggests, is congruent with a human rights perspective on access to health care, including UM, defined by the ICESCR stating that ratifying states are "[…] under the obligation to respect the right to health, by inter alia, refraining from denying or limiting equal access for all persons, including […] asylum seekers and illegal immigrants, to preventive, curative and palliative health services, abstaining from enforcing discriminatory practices as a State policy […]"[18,20].

This framework appoints determinants of health care access on one hand to the "supply-side" and the other hand to the "demand-side". Further, it describes roughly five dimensions of health care access[17]. This framework has become recently a widely used tool to assess access to health care, and can also be used to measure secondary outcomes of research works to assess access to health care, which reveals to be very useful in the context of scarcity of primary outcome data[21]. While it is a comprehensive framework, allowing to well assess the multidimensionality and nuances of access to health care, it is however not possible to prevent redundancies, especially in categorizing the research findings[21]. However, put aside the dimension of *availability*, the framework is not able to offer a quantification of the outcomes to the same extent as it offers guidance to describe qualitative aspects of health care access[17].

2.4 Peer-reviewed and grey literature

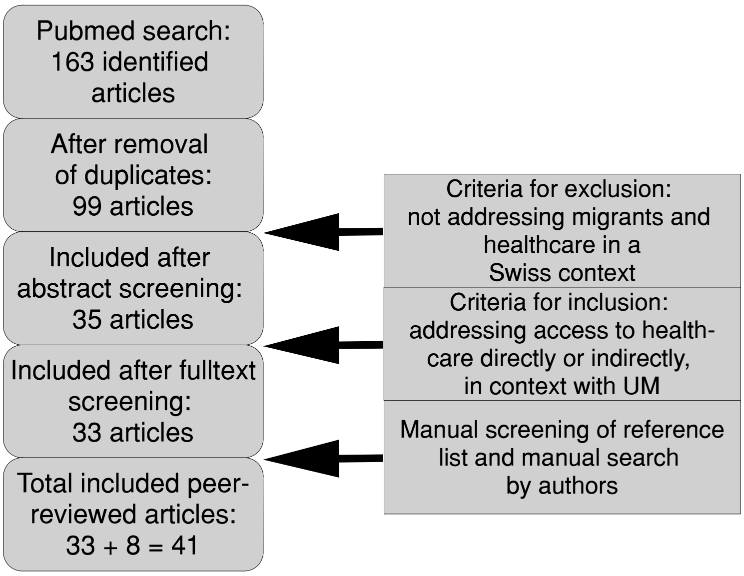
We conducted a review of the peer reviewed literature addressing barriers and access to health care for undocumented migrants in Switzerland. Search terms used in Pubmed were "(undocumented OR irregular OR illegal) AND migrant* AND Switzerland", "access to health care AND (undocumented OR illegal OR irregular) migrants AND Switzerland", "- access health care AND (undocumented OR irregular OR illegal) AND migrant AND Switzerland", "- access to health care AND (undocumented OR illegal OR irregular) AND migrant* AND Switzerland", "health care AND (disparities OR disparity OR equity) AND migrant* AND Switzerland [title/abstract]", "access to health care AND migrant* AND Switzerland [title/abstract]", "barriers AND health care AND migrant* AND Switzerland".

Titles and abstract screening was performed to evaluate eligibility. Criteria for further screening were: Addressing undocumented migrants as population (even if among other groups), being in health care context (e.g. evaluating prevalence of a specific disease), in a Swiss setting.

This research yielded a total of 163 papers. After removal of duplicates, 99 papers remained and 64 Papers were excluded after abstract screening (reasons for exclusion: topic not in Swiss context (35), not addressing undocumented migrants (26), published before 1996 and therefore deemed to be outdated (3)), resulting in 35 papers for full-text screening. After full-text screening, 33 articles were included for thematic and content analysis (reason for exclusion of 2 papers: not being peer-reviewed, or being statements).
Inclusion criteria were: Addressing undocumented migrants as population (even if among others), being in health care context (e.g. evaluating prevalence of a specific disease), in a Swiss setting. Further, manual screening of reference lists, as well as manual search by important authors on the field led to further inclusion of peer-reviewed

articles. Articles published after 1996 in French, English, German and Italian were considered for inclusion.

As for the heterogeneity of the included studies, their different main outcomes and population, we estimate that data is not sufficient for pooling or analysis of the effect size of each of the identified barriers, and we remain therefore in a qualitative assessment of the barriers.



3 Ethics

According to the Federal Human Research Act[22], this paper does not require approval by an ethics committee. Our exploration of barriers to health care are conducted with the goal to eventually improve access to health care for undocumented migrants derive both from a ethical stand point as well as from a public health perspective. However, in the context of certain political parties, several attempts have been made to raise barriers to health care for undocumented migrants, for example, by proposing bills that would prohibit health insurers from covering undocumented migrants or by prosecuting medical personnel who assist undocumented migrants[23]. To our knowledge, a NGO working with undocumented migrants saw itself obliged to commission a legal opinion about the legality of the practice to help undocumented migrants, as the Swiss jurisprudence condemned several times citizens who were supporting UM[24,25]. We acknowledge the potential risk, that the identified barriers might be misused in this sense.

4 Results

4.1 Facets

4.1.1 Defining the undocumented migrants

When defining *undocumented migrants* (further on "UM"), we need to bear in mind that any categorization is a reduction of a heterogeneous population to a few social and legal determinants, not taking into account their plurality of biographic and migratory experiences. Still, we think that the definition is purposeful as these determinants affect significantly their access to health care[26]. In this paper we will use the broadest and most simple definition for UM, which is the absence of residency permit. This is also the lowest common denominator among different definitions. However, not all authors share the same definitions. Other definitions contain the notion of particular sub-groups, such as visa-overstayers, rejected asylum seekers, or individuals who have entered the country illegaly[27]. Intention for the duration of stay or age[28,29], imprisonment[30], as simply the fact that some UM do not fulfill conditions for entry, stay or residence in a given country[8]. Context of national or regional policies shape the definition[10], as well as being an UM is an ongoing process underlying social contexts with many grey-zones and uncertainties[31].

4.1.2 How many undocumented migrants live in Switzerland?

The actual number of UM in Switzerland remains unclear because, by definition, there is no registry and UM strongly avoids contact with the authorities due to their irregular status. The most recent and comprehensive estimate in a study funded by the Federal Secretary of Migration (SEM) narrows the likely number of UM to a range of 58,000-105,000 individuals in 2015. Mixed methods were used, taking into account expert interviews and birth and death certificates[29]. As of January 2022, the Federal Statistical Office indicates that migration status is not known for 2% of the population (142'000)[32]. In an earlier study, also funded by SEM, the authors estimated the number of undocumented migrants in 2005 at 90'000[2]. Both studies emphasize a possible fluctuation of UM related to the economic situation. However, publications by non-governmental organizations contradict this figure and assume up to 300,000 undocumented migrants[3,33]. Regardless of what the actual number of UM in Switzerland may be within this range, they represent about 0.7-3% of the population, which is a comparable proportion to the estimates available for the European Union[8] and thus a plausible figure given the permeability of the Schengen area and Switzerland's geographic location in Europe.

4.1.3 Socio-demographic characteristics of undocumented migrants in Switzerland

Describing the sociodemographic data of undocumented migrants faces similar challenges as counting them. Nevertheless, three typical migration trajectories can be roughly delineated based on different methodological approaches: Wanner et al. estimate that about 63% of all UM entered Switzerland as tourists (with or without a visa, depending on the country of origin). The remaining groups, estimated to be of equal size, consist of rejected asylum seekers and persons whose residence permits were not extended. The largest group of UM in Switzerland is estimated to be 43% from Latin American countries. About 24% come from non-EU European countries, about 19% from Africa and 11% from Asia. Regional differences can also be observed within Switzerland. The majority of UM are between 20 and 40 years old. In urban contexts, there are probably more women, while in rural regions there are more men. They mostly live without a partner and in rather precarious circumstances[29]. Crime is considered to be very low among UM[2].

There seems to be a correlation between economically stronger regions and a higher number of UM. Experts estimate that about 86% of UM are employed. Of those in employment, more than half (53%) work in private households, while construction and gastronomy account for 18% and 16%, respectively, followed by 5% in agriculture and 8% in other sectors. While working conditions in domestic work are described as heterogeneous, workers in agriculture, gastronomy and construction often face precarious working conditions[29]. Socioeconomic data are collected in cohort studies from Geneva among UM, and although generalization for all of Switzerland is not possible, it appears that UM earn on average about a quarter of the average wage of the native population and that a majority of UM are not able to pay CHF 1500 in the short term. Although we could not find data comparing the wages of UM with those of legal employees, we assume that UM rarely earn more than 2000 CHF (as a full-time equivalent)[34], while e.g. in the canton of Geneva a minimum wage of 23 CHF per hour applies[35], this would roughly be equivalent to 3700-4000 CHF per month. which would correspond to about 3700-4000 CHF per month. Furthermore, it is estimated that only about 10% of UM have health insurance[10,36,37].

4.1.4 Health and epidemiology of undocumented migrants in Switzerland

In Switzerland, and in Europe in general, researchers have paid little attention to the health characteristics of UM because of the focus on asylum seekers and refugees[38]. Although comprehensive and systematic data on their epidemiology are not available, a growing body of evidence suggests that UM suffers from chronic diseases and polymorbidity at least to the same extent as the general population[38,39]. While some infectious diseases may be attributable to their origin, many experts conclude that UM "[...] generally suffer from the same illnesses as the general population [...]”[12]. Several Swiss studies show high rates of sexually transmitted diseases, unwanted pregnancies, a high prevalence of cardiovascular risk profiles, and a higher risk of contracting SARS-CoV-2[11,39–42]. Similarly, a high prevalence of mental illness, particularly depression and anxiety disorders, was found[9,10]. UM are found to attend later to medical consultations, and to report more perceived stress[43]. Two further evaluations of a recently regularized cohort of previously UM showed no improvement of self reported health at the onset of the regularization process[44], but regularized migrants showed significantly higher levels of well-being than undocumented migrants[37]. And although the children of UM have similar health compared to the local population, they have more risk factors for future disease (e.g., a much higher prevalence of obesity among UM)[45].

we have not found any study suggesting that UM have a better health status than the general population. The so-called "healthy migrant effect" states that people who succeed in migration and are able to work are generally healthier than those who do not migrate. This may explain why migrants (or UM) have better health than the general population in certain situations[46,47]. owever, many authors postulate that migrants' health, even if initially better than the general average (during migration), deteriorates rapidly due to precarious living conditions and lack of access to preventive measures[7,8,31,48]. A possible observed healthy migrant effect may also be a selection bias or explained by the age structure of the population studied, whose average age is often lower than that of the general population, resulting in a generally lower prevalence of all diseases[5,49]. Again, these results come from a few studies and are far from covering the entire population of UM. Nevertheless, the available data suggest that health care needs and disease burdens are at least similar to those of the general population.

4.1.5 Barriers to health care for undocumented migrants in the international context

Research in the European context shows that the different categories of UM generally face similar barriers to health care. The main determinants of access to health care are believed to be health insurance and residence status[26].The absence of these characteristics leads to delays in consultation and in seeking alternative health care. Legal restrictions, financial issues, complex administrative procedures, and fear of deportation, shame, stigma, and lack of knowledge about the health care system were identified as general categories of barriers to UM[50]. TTo overcome these barriers, several authors collect arguments and ways at different levels to overcome the barriers[50]. Some authors describe a growing tendency to restrict access to health care for undocumented migrants as part of migration control policies in Europe[51]. Although there is no evidence that access to health care is a significant driver for irregular migration, an estimated 1.6% of all UM enter a country primarily for health care. Despite these popular beliefs and exploitation by populist politicians, there is no evidence that easier access to health care is a driver or "pull factor" for irregular migration[8].

Expert recommendations in the EU clearly indicate that universal and equitable health care should be available and accessible to all de facto residents, including UM[8]. These recommendations derive from legal obligations, ethical considerations, and, last but not least, a cost-effectiveness perspective, as limiting care increases not only the health burden but also costs[8,52]. Underutilization of the health care system by UM can also be considered a significant public health problem and a risk for the entire population, for example, in the case of infectious diseases, as recently observed in the SARS-COV -2 pandemic.

4.1.6 A short insight in the perception of irregular migration in research, media and politics

In the articles that refer to the causes of irregular migration, both in peer-reviewed and gray literature, this is done using the "push-pull model", but interestingly without reference to current migration research[2,8,9]. Parastatal agencies such as Frontex or politicians also take up this model and use it to accuse sea rescue NGOs of being a "pull factor" for irregular migration across the Mediterranean[53]. The publicly funded study by Longchamp et al. found that the main "pull factors" for UM to come to Switzerland are economic, such as high standard of living, etc., and the authors rank the "push factors", such as war in the country of origin, as secondary, but also could not find a link with the severity of immigration policies, e.g., more restrictive asylum policies[2]. Documents from authors and organizations advocating for UM also use the "push and pull factors" model, noting that access to health care was not found to be a "pull factor "[8].

The implicit use of this model suggests that the "push-pull model" has become a kind of commonly used, simple common sense explanatory framework to explain the reasons for migration. However, a brief look at migration research shows that this model falls short and does not do justice to the complexity of migration[54]. While the main migration theories roughly distinguish between the initiation and the perpetuation of migration, many subfields of research deal with individual decision-making, macroeconomic and social aspects of migration[55]. Since it is beyond the scope of this paper to exhaustively cover recent developments in migration research, we think it is useful to take a look at Baldwin-Edwards' explanatory approach to illegal migration[56]. First, he highlights that undocumented migration is a scientifically understudied topic despite its omnipresence in political discourse. He then describes how in the prosperous post-World War II economy, many wealthy countries experienced a shortage of domestic labor and encouraged foreigners to fill these gaps before the 1973 oil crisis and global recession marked a turning point in liberal immigration policies. Against a backdrop of rising unemployment, states and migration authorities again restricted immigration from abroad to protect the domestic labor force. By this time, the deregulated economy was increasingly beyond the control of policymakers, and as a last resort of political authority, governments sought to gain control through strict migration control, hoping to benefit the domestic population and protect it from (cheaper) foreign labor. Similarly, previously believed economic hypotheses proved false, such as the regularization hypothesis, which postulated that economic growth would eventually lead to a decline in the informal labor sector. In fact, the opposite has been observed: A growing economy leads to greater competition among firms and thus to higher wages. At the same time, state authorities and their migration control have failed to anticipate adequate labor demand scenarios and to anticipate timely quotas for legal migration. Industries that rely on highly flexible (and readily available) workers with low wages turned to undocumented workers where UM can look for jobs and fill the gaps. According to Baldwin-Edwards, the presence of UM is a phenomenon deeply embedded in the structure of modern advanced capitalism[56]. The gray literature on the situation in Switzerland seems to confirm these findings: Longchamp et al. also concluded that it is not migration control (e.g. strict asylum procedures) that determines the presence or absence of UM, but rather the economic situation[2]. The descriptive study by Wanner et al. showed that many of the UM work precisely in these low-wage sectors, or in sectors where the regular economy and government institutions are unable to provide adequate (and affordable) supply to meet demand in a thriving economy, such as childcare or private nursing[29].

A short insight in the Swiss print media shows that the topic is relevant and often covered with quite significant articles. Many of the articles found describe case reports that also illustrate and confirm the barriers found in the literature review[57], but without taking a position for or against UM, but treating their presence as a reality. Many of these articles address the acute situation at the outbreak of the pandemic, which immediately leaves many UM without income[58], or describe difficulties in accessing COVID testing and later vaccines[59–61]. A more analytical left-wing Wochenzeitung recognizes a recent shift in the policy debate toward more repression (although this was before the pandemic), as new policy initiatives are launched to exclude UM from welfare claims and require schools to denounce children of UM to authorities and to more harshly punish landlords who rent rooms or apartments to UM. Following these attempts to increase repression, health care is to continue to be provided, but in state-run centers affiliated with migration authorities. The article evaluates these attempts as a fundamental attack on the basic rights of people without regular residence. However, there is also the observation that urban regions with many UM are showing growing pragmatism, such as in Geneva where 'Operation Papyrus" is an important regularization program, as well as the project of the city of Zurich to introduce a citizen card modeled on U.S. or Canadian 'sanctuary cities '[62]. It is also noteworthy that individual exponents of the right-wing 'Swiss People's Party' (SVP/UDC) acknowledge the reality of the presence of UM in the urban context and take a pragmatic stance[63], in contrast to the party's official policy statements, which state that "[...] illegal migrants must finally be consistently deported and new arrivals without visas or residence permits must be consistently turned away at the border [...]"[64].

In our interviews, the experts also identify a gap between the pragmatic political forces of all parties and the general political atmosphere in which UM finds itself.

> *“ […] The core of the problem is that we need politicians who can advocate for all patients, not only for the Swiss people. But it is hard for a politician to be elected on the basis of a political program in favor of migration. [...] You have to be a shrewd politician to develop arguments and explain to the people that this undocumented diabetic migrant will return to the emergency room every month in a diabetic coma and will eventually go blind before he has to be amputated if he is not allowed access. It's complicated because policymakers are targeting short-term interventions while a long-term vision is needed. [...]” - ID 07*

> *“[…] Various well-known personalities are on our advisory board. [liberal entrepreneurs, musicians and also SVP/UDC*

> *politicians]. These people from civil society make an important commitment. [...]“ - ID 05*

In the context of Zurich, interesting developments can be observed: The city, supposedly home to the majority of UM, recognizes the existence of UM as a reality, in contrast to the canton (in whose jurisdiction the health system generally lies):

> *“[…] The public hospital of the city of Zurich has started to take over the acute hospitalization of UM. [...] Due to the political constellation in the canton of Zurich, lobbying on the cantonal level is extremely difficult, which is why our advisory service now focuses on the city of Zurich. [...] Interestingly, in the canton of Zurich, the city of Uster and Zurich as well as the canton have agreed to cover the rental costs for UM during the first lockdown [...] 2020. […] The political opposition comes from the Swiss People's Party (SVP/UDC). Part of their strategy is to criminalize work and help for UM, and at the federal level they are launching harassment at the administrative level, for example to make it more difficult to register retroactively for health insurance [...]”* – ID 04

In response to these policies, one of the NGOs contacted has commissioned a legal opinion to determine whether their work with UM may violate any laws.

4.1.7 Situating the Swiss health care System in the context of equity and social determinants of access to health care

In low-income countries, barriers to accessing health care may indeed be the lack of infrastructure (availability) or the fact that the nearest doctor is a day's journey away, while in middle- and high-income countries, inequalities are mainly related to social and behavioral determinants of health. Large differences in life expectancy within a country or even the same city in high-income countries are striking examples of the impact of social determinants on health. Health disparities attributable to social determinants are largely avoidable and unnecessary, and are not necessarily related to the overall wealth of a country, as they are due to social influences and infrastructure rather than a lack of health care[65]. Two examples will illustrate this point: First, life expectancy in Australia between two Aboriginal ethnic groups is about 20 years lower than the Australian average, in the same high-income country. Second, life expectancy in Cuba, Greece, or Costa Rica was somewhat higher than in the U.S., despite much lower GDP[65]. A Commission on Social Determinants of Health was established in 2005 at WHO to convince public health planners and policy makers to take social determinants seriously[65,66]. Social determinants of health, such as unhealthy behaviors (smoking, physical inactivity, unhealthy diet, high obesity, alcohol and illicit drug use), poverty, low income, crowded housing conditions, and lack of residence permits, with resulting difficulties in accessing mandatory health insurance, paying for medications, and preventive services, have been identified as factors of poor health in Switzerland, not only for undocumented immigrants but also for the general population[67,68].

One of the three fundamental recommendations of the WHO to address the influence of social determinants on access to health care is how to measure inequalities[69]. Equity in health care, as opposed to equality, is the idea of "[...] to eliminate disparities in health between more and less-advantaged social groups [...]"[70]. Although it is beyond the reach of the health care system to eliminate all social disparities, there is a growing awareness that an equitable health care system should provide resources to patients according to their social (and economic) background to meet patients' health care needs.

To raise awareness of inequities, the methodology of how access to health care is measured is a cornerstone. Gulliford et al. showed that different socioeconomic groups in the United Kingdom performed equally well in health care utilization (e.g., by counting the number of contacts with health care providers), leading to the conclusion that the health care system may be equitable because poor people actually have equal opportunities to access the health care system. However, when health care outcomes are used as a measure of equity when comparing across socioeconomic groups, important disparities were revealed. These findings underscore the importance of ensuring that socially disadvantaged people, who are more likely to be affected by disease, have more and tailored health care resources to achieve similar outcomes[70]. This also means that it is not enough to offer the same number of consultations to all people. Prevention and health promotion should also be strengthened and of good quality, as there is a risk that poor quality health infrastructure may even lead to more utilization with worse outcomes[71].

Illustration 2 (Health Navigator New Zealand, 2022, www.bka.co.nz) : *barriers to health care can overcome by different means. Identification of the problem, targeted support where needed, or reduction of (systemic) barriers*[72].

The Swiss health care system offers a high-quality infrastructure and is comparatively easy to access[73]. The inhabitants of Switzerland also have a high life expectancy[74]. Health insurance is mandatory and its premiums are set per capita, regardless of income, and there are a large number of private health insurers, all of which are required by federal law to offer the same services[14]. The average annual per capita expenditure on health care is about CHF 7000, and out of pocket payments per year per person is about CHF 2000[75]. his represents a significant financial burden for low- and middle-income households. In order to relieve the burden on lower and middle income households, the law provides for subsidies towards insurance premiums. These subsidies are paid by the canton according to the income of the insured person[14]. Around one third of all Swiss households benefit from premium subsidies[75]. Health care providers are managed as companies and act primarily as business partners who must cover their costs, but are not allowed to make a profit in the mandatory basic insurance system (although they can make a profit with non-mandatory supplementary insurance contracts)[76]. There are hardly any discernible incentives for health care providers to provide services without a reimbursement guarantee.

This, in short, is the health care setting UM face. Unlike the regular population, where the poorest can count to some extent on premium subsidies and social assistance to cover medical costs, UM remain largely excluded from these subsidies. From this constellation, it is clear that UM face major challenges in meeting their health needs.

4.2 Results and characteristics of the expert interviews

An initial exploration of the research question resulted in a rough classification of the specific health infrastructure for UM in Switzerland into two groups. Regions where UM have access to specific clinics in public hospitals (e.g., Geneva and Lausanne, which also serve uninsured individuals), and regions where NGOs and private initiatives organize clinics for UM but public hospitals do not accept them (especially if they are uninsured). We identified key experts in both groups and conducted seven semi-structured interviews exploring how these infrastructures function, how they are funded, the difficulties they encounter, and how they fit into the policy context. The experts were senior physicians on the one hand, and social workers, nurses, and primary care physicians on the other. The expert interviews provided deep insights into the day-to-day struggles of working with UM and were able to illustrate problems in a concrete way and through case reports, in contrast to what is often a more synthetic and abstract description in the peer-reviewed or gray literature.

ID # Interviewee	Function, Region
ID01	Nurse, NGO, Berne
ID02	Physician, Hospital, Geneva
ID03	Physician, NGO, Berne
ID04	Head of NGO, Zurich
ID05	Clerk, NGO, Bern
ID06	Physician, Primary Care Provider, Bern
ID07	Physician, Hospital, Geneva

4.3 Results and characteristics of the grey literature

Most of the gray literature (e.g. non-peer-reviewed) identified and included in this work was mandated by two Federal offices, the Federal Office of Public Health (FOPH) and the State Secretariat for Migration (SEM). Mandates were either attributed to research think tanks or to universities. While Longchamp et al. were the first to analyze the situation of UM in Switzerland in 2005, they do so not only with descriptive elements, but also by analyzing which circumstances favor the emergence of undocumented migrants. The subtitle resonates with the political context of Switzerland of the years 2000[2]. In the 2015 follow-up study, Wanner et. state that their objective is now descriptive[25].

Of special note are two studies evaluating health care for undocumented migrants, that were both mandated by FOPH. While Wyssmüller et al. describe in very detailed manner in their work the available health care infrastructure in Switzerland[12], Rüefli et al. elaborate as a answer for a parliamentary motion a comparison between the legal entitlement of UM and the present situation[77]. Furthermore, NGOs also published reports, brochures and websites. Last, but not least, of special note, the work of Jossen, a Master thesis, illustration concrete barriers to health care for UM in eight ‘case-reports’[31].

4.4 Peer-reviewed literature

4.4.1 Characteristics of the articles

Among the 38 included articles, the most common study designs were fourteen cross-sectional studies[9,10,36–39,41,42,44,47,78–83], six cohort studies[11,36,40,44,46,84], four focus group studies[43,85–87], and three mixed approaches[36,88,89]. The remaining studies included semistructured interviews, narrative reviews, a historical case report and other study designs. The most common themes addressed in the included articles were: Health care forgoing, access to health care, maternity care, mental health, general health, well-being, SARS-COV -2, and others. Because most of the included articles were primarily or partially about undocumented migrants, we decided to nevertheless include the articles about language and communication barriers identified by the above search strategy for the simple reason that allophones UM are also affected by these barriers, at least to the same extent as regularly present allophone migrants. The publication dates of the included articles range from 2005 to 2021, with a median of articles published in 2016 and later.

The regions covered are also particularly noteworthy. Of the 41 articles included, twenty-two (53%) refer to the Geneva and Lausanne regions. These two French-speaking regions are followed by studies from the Zurich region, whereas many regions that also have university hospitals and a high proportion of undocumented migrants (such as Basel or Bern)[2,29] are not represented in the peer-reviewed literature. One explanation for this imbalance could be that the better awareness of Geneva University hospital and the University hospital of Lausanne, with their policlinics for vulnerable populations[90], are better sensitized to this issue. An attempt to explain the situation with the word of an interviewee from the Geneva university Hospital:

> *“This results from a vision of a strong state with a public health perspective. The cooperation with the health ministry and the authorities is constructive which reflects the fact that the hospital acts on a mandate from the state, which has recognized a problem of access to the health system for people in vulnerable situations.” - ID 02*

In this context of political will to address the problem is the Parchemin study, launched in Geneva in 2017, which represents considerable evidence, as it is a prospective cohort study whose objective is to evaluate the impact of a cantonal regularization program on health and well-being of UM. This study, with about 400 participants, is divided into two cohorts, the intervention group and a control group. The former consists of UM who are eligible for or have already undergone regularization under the "Papyrus" operation, a cantonal program to regularize the status of long-term residents UM in Geneva[91], and the latter consists of UM who are not eligible for regularization. This study excluded UM who had lived in Geneva for less than three years and those who did not intend to stay. Further, undocumented migrants who had already applied for asylum were excluded[84].

The identified papers generally address a specific health-care related topic in context with (undocumented) migrant population. Often barriers UM face to access health care are stated in the introduction, only few articles examine either from a qualitative stance or a more data-driven base to evaluate the quality of access to health care.

4.5 Mapping out the results along Levesque et al.’s framework of access to health care

4.5.1 Health care needs, perception of needs, desire for care and health care seeking

These dimensions include the individual process of recognizing a health care need, identifying urgency and importance, resorting either to personal or cultural knowledge, and identifying an appropriate health care provider. While for an acute illness the identification is more intrinsic to be with the patient, screening and other preventive programs are more dependent on the health care facility and its outreach to the target population. If a health service does not seem acceptable (e.g., due to the risk of being prosecuted by immigration authorities), the patient might wait and delay consulting a health provider, thus exacerbating his or her condition or reverting to alternative health behaviors such as self-medication.

4.5.1.1 Approachability and acceptability

4.5.1.1.1 Legal Framework

The legal bases from which the right of access to health care for UM can be derived consists of the Federal Constitution on the one hand, and the Federal Law on Health Insurance (KVG/LAMal) on the other hand. The Federal Constitution states that the Confederation and the Cantons should, subsidiary to personal responsibility and private initiative, "[…] ensure that every person has access to the health care that they require […] "[13] and that "[…] every person is protected against the economic consequences of old-age, invalidity, illness, accident, unemployment, maternity […]"[13]. While this constitutional paragraph describes a social objective that is not directly enforceable[77], the Federal Law on Health Insurance (KVG/LAMal) obliges all residents in Switzerland (regular or non-regular) to be affiliated to a health insurance plan. This obligation goes hand in hand with the right to access subsidies to pay for health insurance premiums, granted by the Cantonal authority to people whose income is not sufficient. Health insurance companies are obliged to accept people with irregular residency status or with preexisting conditions, and the Cantons should ensure that all people are insured[14].

However, this target state resulting from the constitution and the law has hardly been reached and is far from the encountered reality[12,77,92].

Not only do UM often lack knowledge about their entitlements, health care in general, and about their right to confidentiality[12], but there is also evidence of an actual lack of trustworthiness of institutions, where heterogeneous pathways, carelessness of health insurance companies or municipal case workers actually lead to the transfer of data to migration authorities[77].

4.5.1.1.2 Fear of denunciation

Among those UM who know their rights, fear of denunciation and deportation is a constant companion. This phenomenon is also well documented in the international literature[8,50] and is encountered in many papers included in our study[11,12,31,36,38,41–45,78,82–84,93]. However, the perceived risk of denunciation and deportation and the actual risk of being denounced are largely dependent on circumstances and are difficult to predict. Nevertheless, some of the underlying circumstances of this fear can be described. While in primarily smaller cities or towns, agencies that deliver subsidies for premiums and migration authorities are one and the same official office, resulting in a de facto inaccessibility of premium subsidies for UM, in other regions the risk of being reported to the migration authorities lies more in undefined procedures between the offices and in the inattention of individual case workers, rather than in a systematic attempt to denounce UM. However, strict policies are also described[77].

The principal consequence of the permanent fear of being reported is the delay in health care seeking, as the risk of being deported is weighed against the perceived health care need[43]. Only once the health situation is perceived as so alarming, professional health care is sought[12]. Besides this, the constant living in fear and stress are probably also directly affecting health and well-being of UM[5,37]. It is also suspected that mandatory reporting of diseases, such as tuberculosis, to public health authorities, could prevent UM to seek health care, not only because of fear of denunciation, but also because of the stigma that could result in lost of their job[78] and thus their very existential foundation. In the current context of the SARS-Cov-2 pandemic, it is obvious that this also applies to other infectious diseases.

Furthermore, fear of denunciation is also identified as an increasing factor of perceived discrimination[37] which also interferes with the acceptability and appropriateness of a health care service[43,85,87].

Fear of denunciation has also been showed as interfering with the access to health insurance, as shows a study in Lausanne's pediatric hospital: Despite successful efforts of increasing the percentage of children with health insurance form 13% to 48%, one year later, still the majority of children were without insurance. The authors surmise that fear of denunciation or deportation might be essential reasons for not subscribing their children to health insurance, which is, according to the authors, of crucial importance[45].

An other problematic phenomenon, as a direct consequence of lacking trust in a health care institution is the misuse of another individual's identity and health insurance card, in order to access a health care service under someone-else's identity[12]. Besides from being a legal infringement, this behavior not only threatens the real person's health but, due to the health record and mixing of medical information also the patients health (personal experience of the first author).

Distrust in authorities seems to be a deep rooted phenomenon hindering UM to seek help, even in exceptional situations, as shows this example from the 2020 lockdown in Geneva: Many UM migrants forwent health care and suffered even from acute food insecurity[36,42], nevertheless many of them stated to distrust the public institutions. Even among study participants who were newly regularized, many were reluctant accepting help out of fear that their residency status might not be renewed, while those who still were UM feared deportation, once they got known to the authorities.

A conscious policy of equity can however actually reach vulnerable people: in this study UM and homeless people could benefit similarly from COVID-19 testings in the beginning of the COVID-19 pandemic. Targeted outreach to these vulnerable patients occurred on several levels: allocation of funds to free testing of uninsured people, outreach at social institutions, organization of shelter for positive tested people to warrant for isolation[42]. It generally seems, that outreach to vulnerable people seems to be accepted and resulting in participation and (partial) access to health care, as showed an another initiative for tuberculosis screening in shelters[94].

Trust in institutions and predictability of decisions both for NGOs and UM[12] are also undermined by the non formalized cooperation between public hospitals and NGOs, which is heavily dependent from individual interpretation. A NGO collaborator in Berne exemplifies this as follows:

> *"[…]The cooperation with the [University-] hospital is not uniform: it is very variable whether a treatment [for an UM] goes beyond the strict minimum. Often we need to give the patient anticipatory cost approvals in order not to risk premature discharges from hospitals or to risk debt collection and denunciation to the migration authorities. Although it is not directly the hospital that denounces the patient to the migration authority, but a notification to the health department in order to insure the non insured patient ["Zwangsversicherung"] leads often to a check at the migratory office and thus with the police. It is very alienating that there is no standard operating procedure with undocumented migrants and the hospital […]" ID01*

The reasons for this lack of officialization of interfaces between the institutions are suspected to lie in the "policymaking climate", particularly in the German part of Switzerland, where the concept of the State's role and party politics impede such attempts of formalization of co-operations, even though the cooperation exists[12]. A cadre physician in Geneva summarizes the regional political differences as follows:

> *"[…] there are three categories of Cantonal policies: First are cantons with a strong public health vision, political willingness and assumption of responsibility like the Canton of Vaud and Geneva. Second there are cantons with urban regions that*

> *recognize the public health problem, but delegate the responsibility to NGOs, like the Canton of Berne or Zurich. And third, there are more rural cantons that practice a denial of reality along with criminalization practices. […]" - ID02*

4.5.1.2 Ability to perceive and to seek

4.5.1.2.1 Health literacy

At the beginning of the process of accessing health care, health literacy, or the capacity to recognize a need is an indispensable prerequisite. Poor health literacy is identified in several included papers as an important barrier to health care[12,49,85–87,89,93,95–98]. Even though in Levesque et al.'s framework, health literacy is situated on the demand-site, we tend to situate it at the border of the demand and supply site as in recent debate about health literacy it is more and more accepted that health literacy is more than "[…] the capacity to read pamphlets and make appointments […] "[99], and also closely linked to available information, outreach of screening and preventive programs as well as the adaptation of the information to the individuals personal need[87]. We could assume a continuum on which on end the recognition of an acute symptom and thus identifying a health care need seems to be more intrinsic to the individual patient's experience of her or his body, while on the other end 'silent' or asymptomatic conditions are situated, whose recognition and treatment are dependent of screening and preventive medicine initiatives and thus outreach and information campaigns from the supply side.

Poor health literacy among UM is suggested by evidence of disparities in Geneva which shows high rates of unintended pregnancies, threefold higher rates of Chlamydia trachomatis infections, low percentage of pap-smears (both compared to a local control group), high risk sexual behavior with low use of contraception among UM, as well as significantly later first medical appointments in pregnancy[11,40,41,46]. Further arguments that point rather to a lack of outreach and information from the supply-side on one hand is the fact that socio-demographic information in these studies depict rather well educated young people among UM[11,40,41,46], and on the other hand, that in Geneva, a particular pathway for UM is in place in order to access for free, or for a low cost to the general infrastructure of the University Hospital (which is a tertiary and primary care center)[40].

In Lausanne among mainly undocumented sex workers, the lack of adequately targeted outreach and information was indeed a more important barrier to accessing health care than having health insurance[80]. This is an important example illustrating the possible impact of an information campaign, specially in regions, where availability of infrastructures is not the main problem.

In terms of outcome, access to preventive services is crucial and thus relying on well targeted information and outreach campaign as a recent study shows the estimation of about 229’292 preventable hospital admissions per year and resulting costs of approximately 580 Million CHF per year (for the general population in Switzerland)[49].

Closely linked to health literacy and health beliefs is self-medication, a practice that, according to Besson et al.[100], is frequently observed, specifically among Latin American UM. Whether self-medication is a consequence of lacking access to health care, like other alternative health care seeking behaviors[12,28], or a cultural factor, linked to “alternative, folk” or “popular” care sectors remains open be documented. Indisputably however, this practice bears a significant risk of adverse outcome, on the individual level, but also in terms of public health specially in the case of inappropriate use of antibiotics or hormonal-therapies (e.g. to interrupt unwanted pregnancies).

4.5.1.2.2 Psychosomatic and psychiatric syndromes

Poor mental health is not only a consequence of lacking access to adequate health care, but is also identified as a barrier not only to mental health care but also to somatic health care[101,102], resulting in higher hospitalization rates and more avoidable hospitalizations. Mental illness is found to interfere with the patient’s autonomy, trust and health literacy as well as presenting psychosomatic complaints in a health care setting that often faces lack of time and other constraints[45,97,101] The precarious living conditions, poverty, the fear of deportation and absence of perspective combined result in a tremendous distress[9] and can lead to what is called the “illegality syndrome”[5] and eventually develop to full blown mental illness [9].

The possible magnitude of this barrier is illustrated by two included papers showing a disproportionally high prevalence of mental illness among undocumented migrants with rates of diagnosed or suspected mental illness with 18.4% reported confirmed mental disease against positive screening for depression of 45.4% and generalized anxiety of 36%[9,10], whereas in the general population of Switzerland, roughly 15% of the people are affected by psychiatric symptoms [103], and roughly 5% of the Swiss residents have been diagnosed in the last 12 months with clinical depression[104].

However, with respect to the interpretation of these findings as either a determinant or an outcome of insufficient access to mental health care, the authors and our interviewees describe several important barriers to mental health care. A combination of multiple barriers interfere with the organization and use of mental health care for UM: language barriers in combination with absent health insurances (or high out of pocket fees) and necessity of continuous care strongly impede adequate health care use. Furthermore, finding therapists, and paying for continuous prescription of psychotropics is often very difficult[92].

Different health beliefs and cultural backgrounds, somatization tendencies and complex psychosomatic states can also interfere with adequate treatment decisions, specially in low resource, alternative structures. The following statements from three of our interviewees are in the same vein:

> *"[…] In light of scarce resources, it is particularly difficult to make the right decisions for further referral in presence of complex psychosomatic states, tendencies to somatize and different cultural disease representations [...]"* ID 03
>
> *"[…] Patients in precarious living conditions with psychiatric problems face big problems in accessing therapies as the access is very complicated. [...]"* ID 04
>
> *" […] The worst problems always face the mentally ill. There was this patient, suffering from schizophrenia, who had access to psychiatrists as long as he was in the asylum procedure. However, when he got rejected, and became an undocumented migrant, he lost his insurance and was only treated by his general practitioner who refused to continue to prescribe his medication [...]"* ID 05

4.5.2 Health care reaching, utilization and health care consequences

These three dimensions include financial aspects as well as sociocultural and communication aspects of access to health care. The cost of health care services are put into context with the patient income, and health care utilisation is examined as a function of financial, linguistic, and social aspects. Matching or mismatching the demand and supply sides of the dimensions has further implications for health care delivery.

4.5.2.1 Availability and accommodation

UM with health insurance can access the regular health infrastructure, which in Switzerland, with 4.4 physicians per 1000 inhabitants, is well developed[105]. Even though in rural regions this ratio might be inferior, the regular health care system is broadly available. However, outside the regular infrastructure, specific offers for UM are available in only nine of 26 Cantons (BS, BE, FR, GE, GR, NE, TI, VD, ZH)[12]. Hence the population in other regions need either to travel to the mainly urban offers for UM or seek other pathways. Travel costs, distances and time off work without payment might be further barriers for those living outside the covered regions. One interviewee (ID02) who was involved in creation of a new low threshold walk-in clinic for UM in the Canton of Bern, but also working in a primary care practice, states that there are private practices that cover UM on a free basis.

Availability of dental care seems to be particularly complicated as these are not included in the mandatory health insurance[92].

A further barrier, particularly in the NGO run health care institutions are very restricted opening hours: For example the Red Cross run health care practices for UM in Berne and Zurich are open on three weekdays during a few hours in the morning and afternoon[106,107]. But also in Geneva, where UM can go to a designated walk in clinic, with potential access to the university hospital if needed, only offers restricted opening hours[108]. While many UM have several employers, and due to their irregular status, sick leave is on good-will of the employer, it is obvious that the limited opening hours represent a barrier to health care[39].

4.5.2.2 Affordability and the ability to pay

While the legal framework theoretically allows people without residency permit to access health insurance, the financial possibilities of UM can hardly keep up with the actual cost health insurance premiums let alone of cumulative health care services' costs. Our interviewees too see access to health insurance as a major key to accessing health care:

> *"[…]The access to health care is mainly depending on two determinants: Accessing a health insurance and being able to pay for it […]"* - ID06
>
> *"[…] I deem the conclusion of a health insurance as one of the most important factors to ensure access to health care […] In addition to direct medical care, the assistance to conclude a health insurance for the patient is one of the main activities of our organization […] "* - ID01

Affordability of health care is for the most UM a major barrier to addressing and meeting their health care needs. This can be explained by the high costs of health care in Switzerland: In average (2020), residents in Switzerland paid 4321 CHF per year for their health insurance and participation to deductibles[75]. This represents the world-wide highest out of pocket payments for health care[109]. According to the Federal Office of Statistics, three percent of the general population cannot make use of “really necessary”[75] health care, particularly dental care. In the population “at risk for poverty”, this share increases to 8%[75]. Another paper showed, that a much higher share (13.8%) of the (general) population in Geneva is forgoing health care for economic reasons[67]. People at risk were clearly situated in lower socioeconomic contexts and have generally a low income. While forgoing health care is already observed in a considerable share of the population being capable to afford health insurance, we can safely assume that the share of people forgoing health care for economic reasons might be much higher among those who cannot afford health insurance. When taking into account the available data about UM’s income, affordability is clearly a massive barrier[12,38,67,87].

Several expert statements from our interviews clearly support these findings:

> *“[…] The part of UM who is financially able to pay a health insurance remains approximately around 10%. […] Currently with the pandemic, many UM lost their income and cannot pay anymore. In certain cases, the [NGO] could pay the health insurance fees […]”*
>
> and
>
> *“[…] The increase of premiums in the last years, together with a restricted choice of health insurance companies who do not have huge administrative barriers, has worsened the situation of undocumented migrants, to the extent that many do not consider anymore getting affiliated to a health insurance [...]“* - ID01
>
> *“[...]To get access to health insurance is for most of the undocumented migrants not possible due to lack of money. An then, working poor, often have such high deductibles, that they forgo necessary examinations and an adequate treatment is thus often not possible […]”* ID06
>
> *“ […] In Geneva, the health care system is well developed for rich people and for the most vulnerable. On the other hand, in a gray area in the middle, there are often financial problems in accessing the health system properly. The exemplary case would be a person who is able to pay the health insurance premiums himself, but is covered with a high deductible (e.g. 2000 CHF) and high medical costs (e.g. consultation of a specialist for 700 CHF), often causing a renunciation of a therapy. For this intermediately*

> *vulnerable population, there is still considerable room for improvement. […] "* - ID02

Also at the NGOs, the ability to pay for premiums of health insurance is severely limited, and, according to a physician, only possible for about five patients.

> *"[...]Particularly for chronically ill patients, we try to finance the premiums, together with their families. We can pay currently about for five patients the premiums[...]" ID03*

Financially dependent on donations, traditional NGOs also struggles to collect donation dedicated for paying health insurance premiums:

> *"[…] it is also extremely difficult for potential donors to deal with the issue of undocumented migrants, as it is often associated with undeclared work. In addition, it is easier to collect money for concrete assistance, such as medical material, than for health insurance premiums. It also has to do with a social and mentality aspect, according to which many people believe that health insurance is a fixed expense that everyone has to pay, and support at this point is not adequate. In my years of experience, we have found only once an institutional donor to pay for health insurance [of UM]. Within the [NGO] the issue of undocumented migrants is not undisputed, so that it would be out of the question, for example, to specifically launch an appeal for donations for undocumented migrants, also for fear of scaring off long-term donors […] Our walk-in clinic is mainly cross-subsidized via [another department] [...] " - ID01*

Another, more technical, but not to be underestimated problem of affordability is the fact, that retroactive insurance is not possible[14]:

> *"[…] a patient had a medical emergency and needed to go to the emergency department on a Friday evening. We could not reach any health insurance for this patient until Monday morning. In the meantime the patient was in an Intensive Care Unit. According to the law [KVG/LAMal Art. 5], a retroactive insurance is not possible[14]. However, the premiums and penalty fees had to be paid, together with the hospitalization costs, which can reach astronomic amounts. […]"* - ID05

Affordability of health insurance is also for the general population very difficult and despite ethical, economical and medical arguments against such a practice[110], in some Cantons of Switzerland, patients who cannot afford their health insurance premiums are blacklisted[111] (together with those who are not *willing* to pay health insurance and consequently disrespecting the solidarity principle[14]) and thus getting only emergency medical treatment. As this applies for the general population, it is hard to imagine in the current political mode, to create a subsidiary coverage of unpaid premiums by UM. This in mind, and given the often low and unstable income of UM hinders them to conclude a health insurance as it signifies a long term obligation (that cannot be simply canceled[57]) and arrears can lead to debt collections and often to denunciation[77].

After having briefly examined the costs of the health care system, we turn towards the other side of the medal, the ability to pay.
In the Geneva based Parchemin-Cohort, among the recently regularized migrants, 50% of the patients are having (mandatory) health insurance as opposed to 13% of the non-regularized control group. While 51.9% of regularized persons, 78% the non-regularized persons reported being unable to pay 1500 CHF on a short notice[10]. This evidence of high rates of uninsured persons, even among the newly regularized, as well as very little reserve money is a large hurdle to access the regular health care system in Geneva. Considering also the fact, that the Parchemin-Cohort is focusing on long-term UM[84], the conclusion is obvious that the general population of UM in Geneva is worse off than in this sample. The reported incomes of the undocumented migrants are with a annual mean of 23’112 CHF for undocumented migrants and 33’789 CHF for regularized migrants still significantly lower than the mean income of the local population of 83’199 CHF in a city with high living costs[37].

Access to subsidies for premiums is described as difficult[92]. Concretely, only seven out of 26 cantons offered the possibility for UM to apply for premium subsidies[77], which is a clear offense of the legal target state and signifies an additional crucial barrier to accessing health insurance. Thus high costs of health insurance fees and out of the pocket payments and lacking access to premium subsidies meet low incomes of UM and represent thus a massive barrier to accessing health care, making many UM to rely on alternative health care infrastructures[12]. According to Levesque’s framework, the “[…] Opportunity to utilize only services of poor quality in this sense is seen as restriction of access to health care[…]”[17].

4.5.2.3 Ability to reach

In addition to the financial barriers already mentioned, we have identified several other obstacles to obtaining health insurance. Despite the clear legal framework, certain insurance companies and a major insurance umbrella organization oppose mandatory insurance for people without legal status[77]. In addition, political motions have been made by right-wing politicians to remove the eligibility of UM to purchase health insurance[112], but so far without success. A survey of health insurance companies in the canton of Vaud found that 40% of insurance companies refused to cover undocumented migrants, of whom even after explaining the legal obligation, 30% still said they refused to cover them[113], suggesting that not only a lack of knowledge about the entitlements of UM, but also passive (aggressive) resistance seems to play a role, knowing that UM would hardly ever take legal action. And even if legal action were taken, the outcome would be unclear, as a case report by an NGO staff member interviewed shows. In this situation, the cantonal office wanted to pay the health insurers for a UM, but the insurance company successfully resisted such an obligation in court:

> "*[…] The court ruled that a Cantonal office cannot oblige an insurance company to accept an undocumented patient. Its task is to remind the patient to get insured until a certain date. This judgment had incredible implications and this particularly on cases that are actually emergencies[...]*"- ID05

These concrete examples illustrate well what certain authors might be meaning, when they state "administrative barriers"[85] to health care. In Berne, ID01 states that the NGO has currently one health insurance company with which the cooperation is good and this cooperation results rather from personal connection with staff at the health insurance, than from a clear standard operation procedure. However, often due to an increase of premiums in the health insurance company (which is subject to change every year in Switzerland), this is further limiting the choice of insurance companies.

The NGO collaborator describes recurring barriers such as:

> *"[...]sometimes it happens that the phone line interrupts with the call center of an insurance company, just in the moment when it gets a little complicated. […]"* ID01

> "*[…] according to my exchange with peers from other Cantons, in the Canton of Berne, the barriers seem more important. For example the administrative terms are often such that UM can hardly ever meet them, like presenting an official address, a bank account or a residency permit.[…] And often UM are intimidated by these formalities […]* " ID01

> "*[…] The impression arises, that health insurances do not estimate UM as serious clients due to their precarious living conditions. […]*" ID01

4.5.2.4 Ability to engage

After the initial barriers of identifying health care needs, identifying an appropriate health care provider, and clarifying financial issues have been addressed for the first time, there follows the dimension that Levesque et al. call the ability to engage, which includes the client's "[...] participation and involvement [...] in decision-making and treatment decisions, which in is in turn strongly determined by capacity and motivation to participate in care and commit to its completion. This dimension is strongly related to the capacity to communicate as well as notions of health literacy, self-efficacy and self-management in addition to the importance of receiving care that is actually appropriate for the person, given its resources and skills "17 In other words, in order to meet the health care needs, the previously mentioned barriers and those that follow must be overcome not just once, but in sequence. While NGOs state that the more acute and life-threatening a condition is, the easier it is to access the general health infrastructure. Nevertheless, the sword of Damocles of a potentially horrendous bill[92]. hovers over the patient. On the other hand, when treating chronic conditions that require regular and ongoing care, appointments often cannot be kept by UM because they struggle with office hours and the constraints of work commitments, have no opportunity to take sick leave, or are afraid of losing their jobs. In the included studies, this is exemplified by Chagas disease, but these findings could easily apply to many other chronic diseases[39,47,114].

4.5.2.3.1 Language barriers

Language barriers are interfering with practically all dimensions of access to health care. Nevertheless, we chose to situate it in Levesque et al.'s framework in the dimension of *ability to engage* and on the border to the dimension *appropriateness*. Although some responsibility for the language barrier likely also lies with immigrants, we found ample evidence of the presence of structural barriers on the provider side, and thus of a close relationship with the health care utilization and outcome dimension. From navigating the health care system to communicating directly with caregivers to being able to give informed consent to treatment options, language barriers can prevent patients from seeking health care.

While many of the included studies mention language barriers to some extent,s[39,41,43,79,85–88,115], most of them address the issue rather briefly. However, the following examples show that the language barrier is not just a problem of interpretation and translation, but encompasses a much broader field, ranging from transcultural communication to deeply ingrained systemic assumptions about the role of the state and other realities.

Again, regional differences can be identified, showing well-developed access to interpreter services on the one hand and inadequate access on the other, leaving health care providers and patients to bear the costs themselves.

As a historical case report shows how the institutionalization of the use of interpreters occurred in the Geneva university hospital occurred and was implemented in internal clinical and ethical guidelines[115] , large parts of the health care system in Switzerland struggle with access to interpreter services or with their introduction, although the benefits of interpreters are hardly disputed[81]. Organizing interpreter appointments themselves is complicated and time-consuming, as is medical consultation in the presence of interpreters, in both inpatient and outpatient settings, and both sectors struggle with funding the service[79,81,116]. Some cantons pay for interpreter services for their public facilities but refuse to pay for interpreters in primary care, arguing that primary care physicians (PCP) in Switzerland work on a private basis and the cost of the interpreter must be borne by either the physician or the patient[81]. This study also showed that primary care physicians are 6.6 times more likely to use interpreters if they know that the costs will be reimbursed, leaving little doubt as a major barrier to organizing such services[81].

Of note is a study in an inpatient pediatric hospital that reveals another dimension of the complexity of the language barrier, namely the need to overcome language barriers throughout the stay with the numerous typical moments of interaction (and thus the need to be understood) during a day[88]. Other challenges arise from the complex triangular relationship between caregivers, young patients, and their parents in addition to the language barrier and time constraints. Opinions about whether and how to ask a child for informed consent differ across cultures, and finding solutions becomes even more complicated when language barriers are present and combined with culturally different expectations of the communication triangle. On the health care system side, these time-consuming procedures, all of which are necessary to provide quality care, are not accounted for in the current DRG hospital financing system. The authors of this study in the pediatric setting put the identified barriers in context with research showing that significant adverse outcomes in pediatric care, particularly in emergency situations, when the communication barrier in particular is not adequately addressed[117]. It is not far-fetched to assume that these findings could also apply to adult allophone patients.

The lack of availability of interpreter services in primary care has shown in a qualitative study that patients may prefer to go to hospital emergency rooms with health problems that could be addressed by a primary care physician because the likelihood of an interpreter being present is higher than in primary care and because, unlike outpatient care, they do not have to pay for the services[96].

A detailed medical history taking, informed consent, and therapy adherence are not possible without overcoming language barriers[86] . Communication difficulties are compounded by different cultural backgrounds, which can further complicate access to appropriate health care. As a result, frustration arises among both patients and caregivers, leading to perceived or experienced discrimination on the part of patients and antipathy and anger on the part of caregivers[86,97]. Transcultural counseling has been shown to reduce emerging tensions and mitigate these phenomena. However, this approach also faces severe time constraints in the health care setting. In addition, the authors mention that raising awareness of the phenomena of "othering”[97] and “culturalization”[97] could counteract their negative impact on the patient-caregiver relationship by contextualizing patients' differing points of view and could be useful to further assess the impact of language and cultural barriers[97]. Training health care providers in transcultural communication and raising awareness of "migrant-friendly resources" (when available) have been shown to increase the use of professional interpreters and decrease ad hoc interpreting with family members[89]. The authors of another study also showed that cultural background and lack of a residence permit are risk factors for individual and structural discrimination. The authors also believe it is useful to directly address the causes of disparities by raising awareness and reflecting on the implicit attitudes and perceptions of health workers[118].

4.5.2.5 Appropriateness

Appropriateness is defined as “[…] the fit between services and clients need, its timeliness, the amount of care spent in assessing health problems and determining the correct treatment and the technical and interpersonal quality of the service provided [...]”[17]. Given that only two out of 26 cantons and one city[119] provide (partial) access to their regular health infrastructure, while in the remaining regions a parallel infrastructure is operated by NGOs, the question arises whether these parallel structures are able to meet the needs of patients. In our interviews with key actors in three NGOs in German-speaking

Switzerland, we gained insight into how interaction, referral, and care with patients occurs.

Counselling NGO, Bern:

> *"Our target group is all people without a residence permit, if we have the capacity. On the one hand, there are those who are actually known to the authorities because they are rejected asylum seekers and are theoretically entitled to emergency state assistance. And then there are those of whom the authorities do not know their presence[...]"- ID05*
>
> *"[…] initially our main objective was to help UM get access to health insurance. Now another goal is now to answer the question 'How do I get a residence permit?' With respect to this goal, health insurance is particularly important because it is often the only proof of residency. This is especially important for hardship regulation ["Härtefallregelung][...]" -ID05*
>
> *"[…] We have to walk on winding paths and take informal routes. You have to have a lot of self-confidence […] " - ID05*

The main role of this NGO, which advises UM, is to help UM apply for health insurance or, if possible, a residence permit. However, they also organize referrals to hospitals or doctors. However, they do not have the financial means to pay for health insurance.

NGO 2, Walk-in-Clinic Bern

> "*[…] I am working pro bono. The head physician is permanently employed. I am working under individual responsibility with a cantonal professional practice license ['Berufsausübungsbewilligung']. Three times per week, the clinic is open, either with or without appointment. Volunteering internists cover the clinic hours, and once a month there is a gynecological consultation. Furthermore there is occasionally a dentist […] We dispense drugs for free. According to the regulations, we only dispose impeccable medication, no expired drugs. We get drug donations from pharmacies or retirement homes that are just before expiration date […] If someone needs a specialist's advice, we can refer the patient to a small network of specialists. These consultations are for free. They are however very scarce. Otherwise we refer to a hospital with a cost approval […] In light of scarce resources, it is particularly difficult to make the right decisions for further referral in presence of complex psychosomatic states, tendencies to somatize and different cultural disease representations [...]*" - ID03MM

NGO 3, Counselling, Zürich: Services include administrative assistance in accessing health insurance, further legal advice, and general advice on obtaining regular status. On a second level, lobbying is carried out to raise awareness among national, cantonal and local politicians about the concerns of undocumented migrants, with a focus on facilitating access to the labour market for the children of UM.

In contrast to the infrastructure operated by NGOs, we describe here the health service for UM in Geneva, where the resources of the University Hospital are available behind a gatekeeping system.

> *"[...]The criteria of vulnerability are less complex in Geneva than in the Canton of Vaud. In Geneva we deem that a low salary, clandestinity and health problems are sufficient indicators of vulnerability in light of the high living costs in the city [...]"* - ID02
>
> *"[...] the consultations at walk-in clinic follow two pathways. First on the medical level, second on the social level. The social service evaluates if the person is eligible in terms of the criteria of vulnerability to access to the health care services. Then, if financial resources are available on the patient side, the patients pay themselves the health insurance and medical bills. In absence of financial resources deemed sufficient, either a share of the bill is taken into consideration or the university hospital covers the health insurance and medical bills. [...]" -ID02*
>
> *"[...] The case of e.g. an (undocumented migrant) who suffers from an epileptic crisis and is hospitalized in the department of neurology, without insurance, will be evaluated by the social assistant to explore the possibilities of affiliation to a health insurance. If he is a foreigner, the assistant evaluates if the patient was insured in another canton or country. If not, a inquiry about his financial resources is led. The head of the SMPR [Department of primary care at the University Hospital in Geneva] signs a guarantee, with an estimation of, e.g. ten days in the department of neurology with an estimated cost of X approximately. Given the circumstances of the social situation and pathology of the patient, the head of department can validate a cost coverage for the whole costs. Or maybe the patient can pay 1000 CHF for a bill of 15'000 CHF. When he leaves the hospital, he can access a follow up of the walk-in clinic, or, if needed, we will give him a temporal guarantee to access a particular specialist [...] " - ID07*
>
> *"[...]There is a flaw in the system when it comes to very expensive diseases like hepatitis C or HIV. For HIV patients, there has been a different structure for a few years: the*

> *'Commission HIV précaire'. In external meetings with AIDS societies, we can come to the decision to pay the health insurance for a patient for a limited period of time, in order to control the disease and let the patient recover from the psychosocial crisis that can arise in relation to such a disease. [...] Another alternative is buyer groups (as in hepatitis C), which can reduce the cost of drugs by fifty times. [...] Very complicated are also oncological treatments. For really sick people who have no possibility to be treated in their country of origin, we can apply for a temporary residence permit to treat the patient. We often find solutions for the seriously ill patients[…]" - ID07*

The infrastructure as it is available in Geneva generally shows greater adequacy for the circumstances of UM and their health care needs. However, there are still barriers, some of which can be evidenced by the studies that show inequities, such as those related to maternity preventive care or chronic disease management. Difficulties in adequately treating infectious diseases such as hepatitis C and HIV/AIDS or oncological diseases remain very high, as our interviewed expert pointed out. The same limitations seem to apply to NGOs, but on a much larger scale. Even though these parallel infrastructures are very valuable and a lot of personal commitment and energy is put in by volunteers, it becomes clear that with little formalized contacts and procedures regarding hospital contacts and with a more or less informal network based on volunteer doctors in the outpatient setting, the health needs of UM can hardly be met and are far from being comparable to the standard of care available to the majority of the general population in Switzerland.

5 Discussion

Our results show that UM, as a significant minority of the population in Switzerland[2,29,120] who are entitled to access to health care under international law[19,20], the Constitution[13] and the Federal law[14], encounter significant formal and informal barriers to meeting their health needs in all dimensions assessed.

UM in Switzerland are mainly (working) poor, disadvantaged people, mainly aged between 20 and 40 years, but also their children, who first have to overcome intrinsic barriers before they encounter high hurdles in health care facilities[2,12,29,37,45].

Regarding the dimension of health care needs in the Levesque et al. framework, we found evidence of lack of health literacy on the part of patients[11,40,41,46,80] and lack of information and outreach campaigns on the part of providers. Fear of denunciation and deportation, perceived discrimination, and non-transparent administrative channels, which are indeed in some place a risk for denunciation and deportation, are observed [12,36,37,43,45,77,78,85,87,121]. In addition, poor mental health, which is very common among UM[9,10], is identified both as a barrier to (somatic and mental) health care and as a consequence of poor access to (mental) health care[9,10,92,101,102]. In the dimension Health care seeking and reaching, a stark contrast is highlighted between lacking financial funds of a population living mainly at or below the poverty line[10,12,36,37,67,75,87,122] and a highly privatized and expensive health care system with some of the highest out of pocket payments in the world per capita[75,109]. For these reasons, obtaining health insurance is possible only for of about 10%[10,31,36,37] of UM who have sufficient resources to pay for premiums. However, there are many administrative hurdles and pitfalls to overcome, such as the risk of being denounced or deported because administrations are not sensitive to data protection, lack clear guidelines, and have a passive, aggressive policy of non-responsibility[77]. There are exceptions, but in general procedures are confusing, inconsistent, and unpredictable, and vary among twenty-six cantons[77] (Interview with ID 01, 04, 05). *Utilization* of the regular health care system by UM by UM is often limited due to the aforementioned mismatch between the *ability to pay* and the *affordability* of the health care system, which leads to seeking out the parallel system of NGOs, which offers restricted opening hours[12,106–108], limited counseling capacity, and restrictions on referrals to specialists, and faces difficult decisions in the allocation of funding, e.g., helping particularly ill patients access health insurance to manage chronic conditions and high treatment and medication costs (Ref: Interviews with ID 01, ID 03, ID 05). Language barriers and other cross-cultural communication problems interfere with the ability to have an ongoing therapeutic relationship[39,41,43,79,85–88,115], lack of funding for interpreter services and time constraints represent systemic deficits that further compromise informed consent decision making[79,81,88,116]. When comparisons are available, *health care outcomes* for UM are worse than for the general population[9,11,39–42,46,80].

Research on UM faces many methodological challenges, particularly with regard to quantifying their numbers, assessing their sociodemographic data, and making statements about their health[2,29,38]. Whether these challenges and the fact that UM are often referred to as a "hard-to-reach" population[38,41,123] are responsible for the lack of solid data or whether it is a lack of political and scientific interest in this vulnerable group remains open to debate. In general, we can conclude that despite the fact that the available peer-reviewed literature shows great heterogeneity in terms of study design, number of patients included, and studies conducted in many different settings, it showed nevertheless consistently disparities and precarious situations. Not a single study identified showed that UM would be able to meet their health care needs. The lack of sufficiently robust quantitative data in Switzerland makes it difficult to systematically weigh the individual barriers identified. In addition, we found a significant imbalance in the regional distribution of the included peer-reviewed papers: the majority of the peer-reviewed articles we considered were from the Lake Geneva region (representing less than 25% of the Swiss population[124]) with its two universities (Geneva and Lausanne) proactively researching vulnerable populations[10,11,36–42,44,46,47,78,80,84,87,100,121]. Only spotty data are available on the other regions of Switzerland. Some government-funded work shows an attempt to get an overview, but to our knowledge remains without update since 2015[2,12,29,77,93]. This inconsistent data situation is consistent with the international context where, according to many authors, good data are scarce[6,125–127].

The barriers to health care that we identified are similar to those found in the international context, as is the description of regional differences and variations within a country[7,50,125]. Both intrinsic and systemic factors are described as barriers to health care, such as the legal framework, bureaucracy, financial resources, language barriers, health literacy, and discrimination[6,26,28,50,125,127,128]. While a direct comparison of access to health care (as we define it) for UM with other countries is nearly impossible because of methodologic challenges and information scarcity, more data are available for a transnational comparison of regulatory frameworks. In an attempt to map the quality of access and health care for UM in an international context, Switzerland was among the best countries in terms of "access" (defined as a mix of "legal entitlement" and "freedom from administrative barriers") and among the top third of countries in terms of good quality of access[8]. However, this score is based on questionnaires and only reflects regions with “high levels of migration" and should not be considered a generalization for Switzerland[8] in particular health care in Switzerland is managed and funded at cantonal level, with substantial disparities across cantons. Moreover, compared to many countries in the European Union, Switzerland theoretically provides unrestricted access to primary, secondary and preventive health care, which is in line with the Committee on Economic, Social and Cultural Rights (ICESCR), whose ratifying countries (Switzerland ratified it in 1992 [129]) recognize “the right of everyone to the enjoyment of the highest attainable standard of physical and mental health”[129]. With these preconditions, Switzerland's legal framework for UM is among the most permissive compared to few other countries in Europe [7,8,20].

However, in light of our findings that point to significant obstacles in actually meeting patients' health care needs, a phenomenon that has been extensively discussed in the international literature can also be identified in Switzerland: the gap between legal entitlements and the actual situation for UM [8,20,123]. Almost 30 years after the ratification of the ICESCR, Swiss institutions have still not managed to implement a roadmap with concrete steps to overcome the well-known gap between international treaty entitlements and reality[130].

5.1 Implications of the findings in the Swiss Settings

Although there is evidence of significant barriers to accessing health care for UM in Switzerland, this phenomenon remains under-researched in many regions of Switzerland, particularly in the most populous region of Switzerland, German-speaking Switzerland. And while significant differences between UM and the general population are shown in French-speaking regions, one should be cautious about concluding that UM is better off in German-speaking Switzerland, because the important research principle applies: the absence of evidence does not mean that inequalities do not exist. In our interviews with NGO staff, both from Bern and Zurich, they stated that they would be happy to provide health services for UM as are available in Geneva or Lausanne (ID 04, ID 05). Theoretically, however, given the paucity of peer-reviewed studies, it is possible that the differences found are due to selection bias, as the absence of differences would be of lesser interest to be investigated. However, given the international literature and the expertise of stakeholders, this seems highly unlikely[8,123].

The intention of international treaties (from a human rights perspective, the implementation of universal health coverage is an indispensable step to improve the situation of undocumented migrants[20]) and the legal entitlement within the country represent a sine qua non for improving access to health care for UM up on[7,20] although they stand in stark contrast to the observed barriers to health care. Despite this positive finding, the observed inequities and barriers to access to health care for UM in Switzerland demonstrate a chronic insufficiency of the various authorities and stakeholders in the health care system to enforce federal entitlements for UM and obligations derived from international treaties. As a consequence of the current situation, given the weak socioeconomic situation of UM, a large number of UM are likely to rely on an alternative parallel infrastructure run by NGOs, where heterogeneous conditions are encountered and reasonable doubts arise as to whether the health needs of UM can be met. Possible gender inequalities were not particularly been addressed by this study, but the data identified suggest that pregnant women and young mothers may be particularly vulnerable, with available data demonstrating both higher morbidity in perinatal care and particularly high financial risk associated with pregnancy and the associated likely inability to work and consequently total loss of income at some point in pregnancy without a social safety net to rely on[11,29,40,41,82]. The impression is that the observable insufficient efforts of the authorities is not so much due to incompetence or lack of resouces, but rather to a lack of political will to reduce inequalities. Against the backdrop of a political climate of xenophobic statements nourished by some right-wing parties, only a few politicians of the centre or right wing dare to stand up for UM[63] (Ref. Interview ID 07). And from a broader economic perspective, our findings also suggest that the Swiss economy relies on cheap labor in many areas, but is not prepared to address the health and social needs of these people behind this structural situation or to build the infrastructure needed to meet the needs of the population (e.g., more kindergartens)[29]. However, in financial terms, it is very likely that the apparent savings (achieved by not covering access to health care for UM) will ultimately lead to higher costs for society due to avoidable hospitalizations resulting from the lack of access to preventive or curative care that could have been provided on an outpatient basis[49,52]. To date, robust financial data are lacking, particularly for UM in the Swiss context, but chances are that where legal, humanistic, and ethical imperatives fail to persuade stakeholders to meet their obligations, pecuniary arguments could at leastk motivate realpolitik makers to meet their obligations and work to improve access to health care for UM.

5.2 What is different and original in our approach in comparison to other authors – strengths and limitations

Using the facet methodology and health care access framework of Levesque et. al, we aimed to present the barriers to health care access for UM and describe the social, economic, and political environment in which these barriers occur, encouraging readers to acknowledge the complexity of the research question rather than a reductionist analysis of a single subset of questions. This endeavor risks crossing the boundaries of academic disciplines and is likely to open up more new questions than provide ready-made solutions. However, the real world is not ready to respect the boundaries of academic disciplines, nor can the solution be attributed to a single actor for the problem described. Leaving aside the discrepancy between the ability to pay and the affordability of the health care system, it may be tempting to draw generalized conclusions about the barriers to health care access for UM from our work, but they are probably not valid. We can, however, state that we are describing the plethora of potential barriers in a given setting at a given time. Levesque et al. define access to health care in their framework as meeting the patient's health care needs[17], which, in short, corresponds to legal requirements from international and national legislation. This lofty definition of access is often contrasted with missing or unclear definitions of access, both in the publicly funded gray literature and in peer-reviewed papers, in which access often implicitly means that a medical facility is available and a patient seeks it out.

Levesque's framework has been used in many settings to assess access to health care for different populations[21] but to our knowledge, this work is the first to assess access to health care for UM in Switzerland. The barriers identified are comparable to those described in the international context[50]. However, as the briefly presented situation regarding equity shows, this notion of access to health care is insufficient to actually meet the needs of patients. Almost all of the included research mentions the existence of barriers to health care for undocumented immigrants. While these explicit descriptions remain vague, it is the secondary findings in many articles that, when viewed through the lens of the Levesque framework, describe very concrete barriers to health care. Socioeconomic data, health care outcomes, and much other information can be interpreted as determinants along the dimensions of the framework. This process has been described as a powerful and nuanced method for assessing access to health care in various settings around the world[21].

5.3 Strengths

Our methodology allows us to assess many dimensions of access to health care thanks to a combination of different types of literature and expertise from key stakeholders and to describe their qualitative characteristics. We also believe that this approach allows us to achieve saturation in enumerating and describing the main and most important barriers to health care in Switzerland. The breadth of our perspective(s) allows our study to be used as a starting point to navigate this important public health issue.

5.4 Limitations

However, the chosen study design has its important limitations. While the use of the Levesque framework provides a nuanced approach to assessing barriers in given circumstances, it also introduces important redundancies, gray areas, and interindividual room for interpretation. Evaluation of effect sizes of identified barriers is not possible with this approach. The search strategy, covering only Pub med, may have overlooked work in other search engines and databases. Time constraints, as well as the research team consisting of two people, might not be sufficient to cover all aspects in depth and could lead to overlooking important details. In addition, the sample of respondents was small and may not have been representative of all stakeholders. In addition, policy makers, health insurance administrators, and UM patients could have been interviewed to provide more insight into potential barriers.

5.5 Recommendations

While many of the barriers identified are due to the complex interaction of stakeholders in a highly privatized health care system and require the development of policy readiness and long-term action, some other barriers appear to be less difficult to overcome.

- Some of the included studies, particularly where low-threshold health infrastructure exists, suggest that proactively reaching out to the target population could lead to better and earlier uptake of services. It also seems important to expand the notion of health literacy to include health facilities, as this is particularly important in maternal or preventive care.
- Overcoming language barriers should be defined as a sine qua non for quality of care rather than a "nice to have" feature. Telephone interpreter services should be considered when ad hoc interpreters are not available.

- Considering access as a function of complex interactions, dimensions and determinants aimed at meeting patients' needs should be introduced as a definition of access to health care.
- Standardized workflows for cantonal authorities, separation of migration authorities, subsidies and health care, and data protection could facilitate access to subsidies.
- Greater scrutiny and reminders of the legal obligation to accept UM should be implemented for health insurance companies.
- We have found empirical evidence of well-functioning collaboration between NGOs and insurance companies, on the one hand, and public authorities, on the other, which could be developed as a regular communication channel that both UM and the institutions can rely on in their necessary interactions to pursue their claims.
- Efforts to explore the costs that may result from lack of or delayed access to health care for UM should be intensified, as unnecessary costs may be common ground for both proponents of UM and opponents, especially when ethical and legal arguments are insufficient to take the necessary action.
- The qualitative description of barriers found should encourage health care providers to look for and address barriers. While access to public health facilities, as in Geneva, would likely massively improve the situation of UM, our subjective assessment is that this does not seem achievable everywhere in the current situation. However, examples are given of how outreach or other minor adjustments could potentially improve the situation to some degree.
- It is very likely that gender differences are present and of great importance, as the risk associated with pregnancy is associated with significant morbidity and, in particular, socioeconomic vulnerability. In terms of equity, further studies are needed to assess the subgroups of UM that are particularly at risk and the potential weight of gender disparities among UM, and specific interventions for these groups should be undertaken.
- Destigmatizing of UM should be aimed among the general public, policy makers and public authority collaborators with balanced information about legal entitlement, and socio-economic background of UM’s situation.

- Better information and training for health care providers regarding UM should be implemented at undergraduate courses, level up to postgraduate and continuing education.
- Stimulation a public debate about this topic, in order to show the importance of the topic with this rather very silent population of UM, and the necessity to provide services to the population (e.g. kindergartens, care for the elderly).

6 Conclusion

In this study, we examined access to health care for undocumented migrants in Switzerland based on a literature review (scientific, media, and gray literature) and expert interviews, dividing the research question into two sections: First, following the logic of Mason's *facet methodology*[15,16], a mixed-media approach to qualitative research, we aimed to deepen our insight into a complex social, economic, and political problem by exploring the following key facets: Defining and counting UM in Switzerland, their sociodemographic and epidemiological characteristics, a brief overview of the international context for UM, perceptions of irregular migration in research, media, and policy, and an examination of the equity and social determinants of access to health care in Switzerland.

Second, we used Levesque's proven[21] patient-centered framework[17] for health care access. This framework divides the dimensions of health care access into provider and demand sides and covers all possible aspects of health care access, from health literacy (ability to perceive) to geography (access and availability) to affordability.

As far as the included literature is concerned, it is of note that the quality is variable and the articles rarely directly address the issue of access to health care for UM. An uneven regional distribution can be observed in the peer-reviewed journal articles: The majority of articles relate to urban, French-speaking Switzerland (which accounts for only about 25% of the Swiss population[124]), while few research papers address UM in other regions. However, government-funded documents at the federal level show that they are aware of the public health problem and aim to cover all regions of Switzerland[12].

Undocumented migrants are identified as residents without residency permit, a heterogeneous population that is usually young, mobile, and working poor. They represent about 1-3% of the total population, which is comparable to the European context[2,12,29,37]. Their health and epidemiology shows to be under-researched, but some studies show that the prevalence of diseases is at least similar compared to the general population, but with a higher prevalence of psychiatric and infectious diseases[9,10].

The model of migration most commonly encountered in our sources is the so-called pull-push model, which assumes that factors that push migrants away from one region (wars, droughts, etc.) and pull them to other regions (wealth, job opportunities, access to health care, etc.) may be the main drivers of (irregular) migration[54]. In light of current migration research, this represents an oversimplified approach to the complex mechanisms of migration[2,8,9,53–55]. In the sources that delve deeper into the reasons for irregular migration, various authors argue that the presence of undocumented migrants is a global phenomenon in high-income countries where cheap and disposable workforce is needed to keep various sectors of the economy running, such as in care work, where regular infrastructure is either scarce or unaffordable, rather than a problem of migration regulation [2,29,56].

Mainstream media articles report on the trajectories of individual migrants and describe the barriers UM may face in accessing health care, without taking a position for or against UM[57,59–61]. In politics, realpolitik approaches can be found across the left-right spectrum[91], however, some political parties address the presence of undocumented migrants in their political discourse as the cause of a range of problems[64,112] (Ref. Interview ID 07), which is in stark contrast to the research findings.

In light of the Levesque approach, we identified a clear legal framework, consisting of federal law, the Swiss Constitution, and international treaties[13,19,20], that give UM the right to have their health needs met despite their irregular migration status. However, in practice, organizational issues (e.g., when the same cantonal authority is in charge both of migration and health care) lead individuals to fear denunciation when trying to access entitlements[77]. Barriers to accessing health services in many areas include postponement of seeking health care[43], lower health literacy[11,40,41], and especially financial barriers[12,38,67,87]. Language barriers are a major obstacle to health care, and lack of funding and time constraints in the clinical setting are major barriers to implementing systematic use of interpreters[79,81,89,116]. While these barriers in themselves are a major impediment to accessing appropriate health care, it is reasonable to assume that access to longer-term care, such as chronic illness, becomes many times more difficult. The observation that UM has poorer health outcomes can be interpreted in light of these findings[9,11,39–42,46,80].

In summary, according to available sources, the health care system in many parts of the country does not provide adequate access to health care for this vulnerable group, despite a clear legal framework and the availability of health care facilities and staff. The overall impression we have gained from these findings is that social determinants are the main obstacles to adequate access to health care, which is an important public health problem whose solution depends not on fate but on political structure and will.

Possible solutions to the problem span several levels: First, scientific research on this topic is still underdeveloped, especially in German- and Italian-speaking Switzerland, leading to blind spots in the health care system and ultimately to inefficiencies in patient care. In this sense, the debate on the financial aspects and consequences of impaired access to health care should be intensified both in the scientific discussion and in politics. Second, in many cantons where public institutions have not established their own structures to improve access for UM, closer cooperation with NGOs could be improved, on the one hand, in the sense that strengthening their positions would be beneficial for both UM and health care institutions to ensure that their costs are covered. On the other hand, federal regulatory bodies should have more weight in asking local authorities to comply with the legal framework. Third, on the caregiver side,training aimed at increasing the awareness of equity and access to health care for vulnerable people should begin at the undergraduate level and continue throughout caregivers careers. Fourth, the public debate should aim to destigmatize UM by increasing understanding of the social and economic aspects, as well as the reasons why UM exists.

Finally, we would like to emphasize that our findings do probably not only apply to UM and their access to health care, but may also be relevant to other vulnerable populations with whom UM share common social determinants of access to health care. Consider for example, the chronically ill, people with psychiatric disorders, and the growing numbers of elderly and frail[49] who may be affected by the same barriers.

7 Acknowledgements

I would like to express my profound gratitude to Professor J.-F. Etter who guided me through this project with inputs that always revealed to be food for thought in order to develop this project. Special thanks also

to all interview participants, their committed time and effort to help to realize this project.
Last but not least, special thanks to my partner, Myriam El Biali, and countless friends whose encouraging comments helped me to keep on track and who reminded me in times of doubt of the social relevance of the research topic.

8 List of abbreviations

UM	Undocumented migrants
NGO	Non-governemental organization
ICESCR	International Covenant on Economic, Social and Cultural Rights
FOPH	Federal Office of Public Health
SEM	Secretary of Migration
GDP	Gross domestic product
KVG/LAMal	Krankenversicherungsgesetz /Loi de l’assurance maladie = Swiss Federal Law on Health Insurance
PCP	Primary Care Physicians

9 Bibliography

1……Reuters. Hundreds queue for food parcels in wealthy Geneva. *The Guardian*. https://www.theguardian.com/world/2020/may/09/food-parcels-handed-out-to-workers-in-geneva-impacted-by-covid-19. Published May 9, 2020. Accessed December 11, 2020.
2. Claude Longchamp. Sans Papiers in der Schweiz: Arbeitsmarkt, nicht Asylpolitik ist entscheidend.
3............Nationale Plattform Gesundheitsversorgung für Sans-Papiers. Gesundheitsversorgung für verletzliche Gruppen in der Schweiz. Published online 2014.

4..........Statistik B für. Taschenstatistik der Schweiz 2021 | Publikation. Bundesamt für Statistik. Published March 26, 2021. Accessed June 20, 2022. https://www.bfs.admin.ch/asset/de/15864447

5..........Castañeda H. Illegality as risk factor: A survey of unauthorized migrant patients in a Berlin clinic. *Soc Sci Med*. 2009;68(8):1552-1560. doi:10.1016/j.socscimed.2009.01.024

6..........De Vito E, de Waure C, Specchia ML, et al. Are undocumented migrants' entitlements and barriers to healthcare a public health challenge for the European Union? *Public Health Rev*. 2016;37(1):13. doi:10.1186/s40985-016-0026-3

7.Suess A, Ruiz Pérez I, Ruiz Azarola A, March Cerdà JC. The right of access to health care for undocumented migrants: a revision of comparative analysis in the European context. *Eur J Public Health*. 2014;24(5):712-720. doi:10.1093/eurpub/cku036

8.. Ingleby D . and Petrova-Benedict R. Recommendations on access to health services for migrants in an irregular situation: an expert consensus. Published online 2016.

9......Heeren M, Wittmann L, Ehlert U, Schnyder U, Maier T, Müller J. Psychopathology and resident status - comparing asylum seekers, refugees, illegal migrants, labor migrants, and residents. *Compr Psychiatry*. 2014;55(4):818-825. doi:10.1016/j.comppsych.2014.02.003

10. Fakhoury J, Burton-Jeangros C, Consoli L, Duvoisin A, Courvoisier D, Jackson Y. Mental health of undocumented migrants and migrants undergoing regularization in Switzerland: a cross-sectional study. *BMC Psychiatry*. 2021;21:175. doi:10.1186/s12888-021-03149-7

11.....Wolff H, Epiney M, Lourenco AP, et al. Undocumented migrants lack access to pregnancy care and prevention. *BMC Public Health*. 2008;8:93. doi:10.1186/1471-2458-8-93

12....Wyssmüller C, Efionayi-Mäder D. Undocumented Migrants: their needs and strategies for accessing health care in Switzerland Country Report on People & Practices. :71.

13.............SR 101 - Federal Constitution of 18 April 1999 of the Swiss Confederation. Accessed May 26, 2022. https://www.fedlex.admin.ch/eli/cc/1999/404/en

14. BAG B für G. Bundesgesetz über die Krankenversicherung (KVG). Published December 11, 2020. Accessed December 11, 2020. https://www.bag.admin.ch/bag/de/home/gesetze-und-bewilligungen/gesetzgebung/gesetzgebung-versicherungen/gesetzgebung-krankenversicherung/kvg.html

15........Jennifer Mason. *Qualitative Researching*. Third Edition. SAGE Publications Ltd; 2018.

16....Mason J. Facet Methodology: The Case for an Inventive Research Orientation. *Methodol Innov Online*. 2011;6(3):75-92. doi:10.4256/mio.2011.008

17.Levesque JF, Harris MF, Russell G. Patient-centred access to health care: conceptualising access at the interface of health systems and populations. *Int J Equity Health*. 2013;12(1):18. doi:10.1186/1475-9276-12-18

18........OHCHR | About the right to health and human rights. OHCHR. Accessed July 10, 2022.

https://www.ohchr.org/en/special-procedures/sr-health/about-right-health-and-human-rights
19.….International Covenant on Economic, Social and Cultural Rights. OHCHR. Accessed May 25, 2022. https://www.ohchr.org/en/instruments-mechanisms/instruments/international-covenant-economic-social-and-cultural-rights
20.............Cuadra CB. Right of access to health care for undocumented migrants in EU: a comparative study of national policies. *Eur J Public Health*. 2012;22(2):267-271. doi:10.1093/eurpub/ckr049
21..Cu A, Meister S, Lefebvre B, Ridde V. Assessing healthcare access using the Levesque's conceptual framework– a scoping review. *Int J Equity Health*. 2021;20(1):116. doi:10.1186/s12939-021-01416-3
22.............SR 810.30 - Federal Act of 30 September 2011 on Research involving Human Beings (Human Research Act, HRA). Accessed March 15, 2022. https://www.fedlex.admin.ch/eli/cc/2013/617/en
23. Gesamthafte Prüfung der Problematik der Sans-Papiers. Bericht des Bundesrats in Erfüllung des Postulats der Staatspolitischen Kommission des Nationalrats vom 12. April 2018 (18.3381). :126.
24............Schweiz bestraft Personen, die den Sans-Papiers helfen. SWI swissinfo.ch. Accessed March 20, 2022. https://www.swissinfo.ch/ger/gesellschaft/migrationspolitik_schweiz-bestraft-personen--die-den-sans-papiers-helfen/44888210
25.............SR 142.20 - Bundesgesetz vom 16. Dezember 2005 über die Ausländerinnen und Ausländer und über die Integration (Ausländer- und Integrationsgesetz, AIG). Accessed March 31, 2022. https://www.fedlex.admin.ch/eli/cc/2007/758/de
26...............Campbell RM, Klei AG, Hodges BD, Fisman D, Kitto S. A Comparison of Health Access Between Permanent Residents, Undocumented Immigrants and Refugee Claimants in Toronto, Canada. *J Immigr Minor Health*. 2014;16(1):165-176. doi:10.1007/s10903-012-9740-1
27.….Mladovsky P, Ingleby D, McKee M, Rechel B. Good practices in migrant health: the European experience. *Clin Med Lond Engl*. 2012;12(3):248-252. doi:10.7861/clinmedicine.12-3-248
28...........Biswas D, Kristiansen M, Krasnik A, Norredam M. Access to healthcare and alternative health-seeking strategies among undocumented migrants in Denmark. *BMC Public Health*. 2011;11(1):560. doi:10.1186/1471-2458-11-560
29..................Philippe Wanner MM. Sans-Papiers in der Schweiz 2015.
30............Collantes S, Health for Undocumented Migrants and Asylum seekers. *Access to Health Care for Undocumented Migrants and Asylum Seekers in 10 EU Countries: Law and Practice*. HUMA Network; 2009.
31.…Jossen M. *Undocumented Migrants and Healthcare: Eight Stories from Switzerland*. Open Book Publishers; 2018. doi:10.11647/OBP.0139
32.. .Statistik B für. Bevölkerung nach Migrationsstatus. Accessed June 20, 2022. https://www.bfs.admin.ch/bfs/de/home/statistiken/bevoelkerung/migration-integration/nach-migrationsstatuts.html

33.........Plate-forme nationale pour l'accès aux soins de santé des sans-papiers. Accès aux soins des populations vulnérables en Suisse. Published online 2014.

34..Sans-Papiers im Kanton Zürich. :46.

35.......Montant et calcul du salaire minimum. ge.ch. Accessed June 20, 2022. https://www.ge.ch/node/24962

36....Burton-Jeangros C, Duvoisin A, Lachat S, Consoli L, Fakhoury J, Jackson Y. The Impact of the Covid-19 Pandemic and the Lockdown on the Health and Living Conditions of Undocumented Migrants and Migrants Undergoing Legal Status Regularization. *Front Public Health*. 2020;8:596887. doi:10.3389/fpubh.2020.596887

37..Burton-Jeangros C, Duvoisin A, Consoli L, Fakhoury J, Jackson Y. The well-being of newly regularized migrant workers: Determinants of their satisfaction with life as compared to undocumented migrant workers and regular local residents. *Comp Migr Stud*. 2021;9(1):42. doi:10.1186/s40878-021-00244-2

38.....................Jackson Y, Paignon A, Wolff H, Delicado N. Health of undocumented migrants in primary care in Switzerland. *PloS One*. 2018;13(7):e0201313. doi:10.1371/journal.pone.0201313

39..Jackson Y, Castillo S, Hammond P, et al. Metabolic, mental health, behavioural and socioeconomic characteristics of migrants with Chagas disease in a non-endemic country. *Trop Med Int Health*. 2012;17(5):595-603. doi:10.1111/j.1365-3156.2012.02965.x

40...Wolff H, Lourenço A, Bodenmann P, et al. Chlamydia trachomatis prevalence in undocumented migrants undergoing voluntary termination of pregnancy: a prospective cohort study. *BMC Public Health*. 2008;8:391. doi:10.1186/1471-2458-8-391

41.....Sebo P, Jackson Y, Haller DM, Gaspoz JM, Wolff H. Sexual and Reproductive Health Behaviors of Undocumented Migrants in Geneva: A Cross Sectional Study. *J Immigr Minor Health*. 2011;13(3):510-517. doi:10.1007/s10903-010-9367-z

42.Baggio S, Jacquerioz F, Salamun J, Spechbach H, Jackson Y. Equity in access to COVID-19 testing for undocumented migrants and homeless persons during the initial phase of the pandemic. *J Migr Health*. 2021;4:100051. doi:10.1016/j.jmh.2021.100051

43..Bollini P, Stotzer U, Wanner P. Pregnancy outcomes and migration in Switzerland: results from a focus group study. *Int J Public Health*. 2007;52(2):78-86. doi:10.1007/s00038-007-6003-3

44.Fakhoury J, Burton-Jeangros C, Guessous I, Consoli L, Duvoisin A, Jackson Y. Self-rated health among undocumented and newly regularized migrants in Geneva: a cross-sectional study. *BMC Public Health*. 2021;21(1):1198. doi:10.1186/s12889-021-11239-0

45....Gehri M, Depallens S, Puelma M, Krähenbühl J. The health status of children without resident permit consulting the Children's Hospital of Lausanne. *Swiss Med Wkly*. 2010;(27). doi:10.4414/smw.2010.13048

46.........Wolff H, Stalder H, Epiney M, Walder A, Irion O, Morabia A. Health care and illegality: a survey of undocumented pregnant immigrants in Geneva. *Soc Sci Med 1982*. 2005;60(9):2149-2154. doi:10.1016/j.socscimed.2004.12.007

47. Jackson Y, Gétaz L, Wolff H, et al. Prevalence, Clinical Staging and Risk for Blood-Borne Transmission of Chagas Disease among Latin American Migrants in Geneva, Switzerland. *PLoS Negl Trop Dis*. 2010;4(2):e592. doi:10.1371/journal.pntd.0000592
48.…Rechel B, ed. *Migration and Health in European Union*. McGraw Hill/Open University Press; 2011.
49..........Spycher J, Morisod K, Eggli Y, et al. Indicators on Healthcare Equity in Switzerland New Evidence and Challenges. :158.
50...................Hacker Karen. Barriers to health care for undocumented immigrants: a literature review. *Risk Manag Healthc Policy*. 2015;(8):175-183.
51.…Simonnot N, Intrand C. L'Europe et les sans-papiers. Politique de santé ou politique d'immigration ? *Hommes Migr Rev Fr Réf Sur Dyn Migratoires*. 2009;(1282):108-121. doi:10.4000/hommesmigrations.458
52......Bozorgmehr K, Razum O. Effect of Restricting Access to Health Care on Health Expenditures among Asylum-Seekers and Refugees: A Quasi-Experimental Study in Germany, 1994–2013. *PLOS ONE*. 2015;10(7):e0131483. doi:10.1371/journal.pone.0131483
53..............Cusumano E, Villa M. *Sea Rescue NGOs : A Pull Factor of Irregular Migration?* European University Institute; 2019. doi:10.2870/644458
54. Van Hear N, Bakewell O, Long K. Push-pull plus: reconsidering the drivers of migration. *J Ethn Migr Stud*. 2018;44(6):927-944. doi:10.1080/1369183X.2017.1384135
55.........Bircan T, Purkayastha D, Ahmad-Yar AW, et al. D2.1 Gaps in Migration Research. :105.
56...........Baldwin-Edwards M. Towards a Theory of Illegal Migration: historical and structural components. *Third World Q*. 2008;29(7):1449-1459. doi:10.1080/01436590802386690
57.. Dünki F. Als Sans-Papier in der Coronakrise: «Ins Spital zu gehen, ist zu gefährlich». St.Galler Tagblatt. Published December 10, 2020. Accessed December 10, 2020. https://www.tagblatt.ch/leben/als-sans-papier-in-der-coronakrise-ins-spital-zu-gehen-ist-zu-gefaehrlich-ld.1235978
58...........Corona und Armut in der Schweiz – Vor der Krise hüteten sie Kinder, jetzt warten sie auf einen Anruf. Der Bund. Accessed April 8, 2022. https://www.derbund.ch/wenn-der-job-weg-ist-stehen-sie-vor-dem-nichts-438862659392
59...«Ich kenne noch keinen Sans-Papiers, der geimpft ist» zentralplus. Accessed March 18, 2022. https://www.zentralplus.ch/gesellschaft/ich-kenne-noch-keinen-sans-papiers-der-geimpft-ist-2089275/
60.…..Luzerner Beraterin: «Sans-Papiers gehen in der Krise noch mehr vergessen». zentralplus. Published January 9, 2021. Accessed March 20, 2022. https://www.zentralplus.ch/gesellschaft/luzerner-beraterin-sans-papiers-gehen-in-der-krise-noch-mehr-vergessen-1978607/
61.........Kanton Luzern will Sans-Papiers den Zugang zu Corona-Tests erleichtern. zentralplus. Published January 26, 2021. Accessed March 20, 2022. https://www.zentralplus.ch/news/kanton-luzern-will-sans-papiers-den-zugang-zu-corona-tests-erleichtern-1995245/

62..Sans-papiers: Hoffen auf die Einsicht der CVP. Published February 7, 2018. Accessed March 20, 2022. https://www.woz.ch/-8696
63.. .Luzerner SVP-Politiker will Sans-Papiers legalisieren. zentralplus. Published March 21, 2021. Accessed March 20, 2022. https://www.zentralplus.ch/politik/wieso-luzerner-svp-politiker-sans-papiers-helfen-will-2038273/
64. Illegale Einwanderer müssen konsequent ausgeschafft werden. SVP Schweiz. Accessed April 20, 2022. https://www.svp.ch/news/artikel/medienmitteilungen/illegale-einwanderer-muessen-konsequent-ausgeschafft-werden/
65.Marmot M. Social determinants of health inequalities. *Public Health*. 2005;365:6.
66.........Seaman R, Mitchell R, Dundas R, Leyland A, Popham F. How much of the difference in life expectancy between Scottish cities does deprivation explain? *BMC Public Health*. 2015;15(1):1057. doi:10.1186/s12889-015-2358-1
67.….Guessous I, Gaspoz JM, Theler JM, Wolff H. High prevalence of forgoing healthcare for economic reasons in Switzerland: A population-based study in a region with universal health insurance coverage. *Prev Med*. 2012;55(5):521-527. doi:10.1016/j.ypmed.2012.08.005
68......OFSP O fédéral de la santé publique. Mesurer l'équité. Accessed March 20, 2022. https://www.bag.admin.ch/bag/fr/home/strategie-und-politik/nationale-gesundheitsstrategien/gesundheitliche-chancengleichheit/chancengleichheit-in-der-gesundheitsversorgung/chancengerechtigkeit-messen.html
69.…..CSDH. *Closing the Gap in a Generation: Health Equity through Action on the Social Determinants of Health. Final Report of the Commission on Social Determinants of Health.* World Health Organization; 2008.
70.........Braveman PA. Monitoring Equity in Health and Healthcare: A Conceptual Framework. *J Health Popul Nutr*. 2003;21(3):181-192.
71...........Gulliford M, Figueroa-Munoz J, Morgan M, et al. What does "access to health care" mean? *J Health Serv Res Policy*. 2002;7(3):186-188. doi:10.1258/135581902760082517
72.............Zealand (www.bka.co.nz) S designed and developed by bka interactive ltd Auckland, New. Equity | Health Navigator NZ. Health Navigator New Zealand. Accessed April 17, 2022. https://www.healthnavigator.org.nz/clinicians/e/equity/
73.........................Statistik - 2021 - Taschenstatistik der Schweiz 2021 Publikation.pdf.
74.........Statistik B für. Lebenserwartung in der Schweiz im Jahr 2020 | Bundesamt für Statistik. Lebenserwartung in der Schweiz im Jahr 2020 | Bundesamt für Statistik. Published October 25, 2021. Accessed July 12, 2022. https://www.bfs.admin.ch/news/de/2021-0636
75.....BAG B für G. Statistik der obligatorischen Krankenversicherung. Accessed May 26, 2022. https://www.bag.admin.ch/bag/de/home/zahlen-und-statistiken/statistiken-zur-krankenversicherung/statistik-der-obligatorischen-krankenversicherung.html

76..........Switzerland. Published June 5, 2020. Accessed July 12, 2022. https://www.commonwealthfund.org/international-health-policy-center/countries/switzerland
77.....Rüefli C, Huegli E. Bericht zur Beantwortung des Postulats Heim (09.3484). :141.
78.Wolff H, Janssens JP, Bodenmann P, et al. Undocumented Migrants in Switzerland: Geographical Origin Versus Legal Status as Risk Factor for Tuberculosis. *J Immigr Minor Health*. 2009;12(1):18. doi:10.1007/s10903-009-9271-6
79....Jaeger FN, Pellaud N, Laville B, Klauser P. The migration-related language barrier and professional interpreter use in primary health care in Switzerland. *BMC Health Serv Res*. 2019;19(1):429. doi:10.1186/s12913-019-4164-4
80. Darling KEA, Gloor E, Ansermet-Pagot A, et al. Suboptimal access to primary healthcare among street-based sex workers in southwest Switzerland. *Postgrad Med J*. 2013;89(1053):371-375. doi:10.1136/postgradmedj-2012-131001
81.Jaeger FN, Pellaud N, Laville B, Klauser P. Barriers to and solutions for addressing insufficient professional interpreter use in primary healthcare. *BMC Health Serv Res*. 2019;19(1):753. doi:10.1186/s12913-019-4628-6
82................Casillas A, Bodenmann P, Epiney M, et al. The Border of Reproductive Control: Undocumented Immigration as a Risk Factor for Unintended Pregnancy in Switzerland. *J Immigr Minor Health*. 2015;17(2):527-534. doi:10.1007/s10903-013-9939-9
83. Vu F, Cavassini M, D'Acremont V, et al. Epidemiology of sexually transmitted infections among female sex workers in Switzerland: a local, exploratory, cross-sectional study. *Swiss Med Wkly*. 2020;(51). doi:10.4414/smw.2020.20357
84.Jackson Y, Courvoisier DS, Duvoisin A, et al. Impact of legal status change on undocumented migrants' health and well-being (Parchemins): protocol of a 4-year, prospective, mixed-methods study. *BMJ Open*. 2019;9(5):e028336. doi:10.1136/bmjopen-2018-028336
85..............Sami J, Quack Lötscher KC, Eperon I, et al. Giving birth in Switzerland: a qualitative study exploring migrant women's experiences during pregnancy and childbirth in Geneva and Zurich using focus groups. *Reprod Health*. 2019;16:112. doi:10.1186/s12978-019-0771-0
86.Origlia Ikhilor P, Hasenberg G, Kurth E, Asefaw F, Pehlke-Milde J, Cignacco E. Communication barriers in maternity care of allophone migrants: Experiences of women, healthcare professionals, and intercultural interpreters. *J Adv Nurs*. 2019;75(10):2200-2210. doi:10.1111/jan.14093
87....................Schmidt NC, Fargnoli V, Epiney M, Irion O. Barriers to reproductive health care for migrant women in Geneva: a qualitative study. *Reprod Health*. 2018;15(1):43. doi:10.1186/s12978-018-0478-7
88................Kaufmann B, Helfer T, Pedemonte D, Simon M, Colvin S. Communication challenges between nurses and migrant paediatric patients. *J Res Nurs JRN*. 2020;25(3):256-274. doi:10.1177/1744987120909414

89.....Hudelson P, Dominice Dao M, Perneger T, Durieux-Paillard S. A "Migrant Friendly Hospital" Initiative in Geneva, Switzerland: Evaluation of the Effects on Staff Knowledge and Practices. *PLoS ONE*. 2014;9(9):e106758. doi:10.1371/journal.pone.0106758
90..............................SRK. *Transkulturelle Public Healt*. Seismo; 2012.
91............................Opération Papyrus. ge.ch. Accessed July 12, 2022. https://www.ge.ch/taxonomy/term/564
92.................Derron J. Accès aux soins des populations vulnérables en Suisse. :30.
93..Bilger V, Hollomey C, Efionayi-M??der D, Wyssm??ller C. *Health Care for Undocumented Migrants in Switzerland: Policies, People, Practices*.; 2011.
94..........Janssens JP, Wuillemin T, Adler D, Jackson Y. Screening for tuberculosis in an urban shelter for homeless in Switzerland: a prospective study. *BMC Infect Dis*. 2017;17(1):347. doi:10.1186/s12879-017-2449-y
95....Sottas B, Brügger S, Jaquier A. Eine explorative Studie auf Grund von Expertengesprächen. :55.
96.......Wallimann C, Balthasar A. Primary Care Networks and Eritrean Immigrants' Experiences with Health Care Professionals in Switzerland: A Qualitative Approach. *Int J Environ Res Public Health*. 2019;16(14):2614. doi:10.3390/ijerph16142614
97. Dominicé Dao M, Inglin S, Vilpert S, Hudelson P. The relevance of clinical ethnography: reflections on 10 years of a cultural consultation service. *BMC Health Serv Res*. 2018;18(1):19. doi:10.1186/s12913-017-2823-x
98......Tzogiou C, Boes S, Brunner B. What explains the inequalities in health care utilization between immigrants and non-migrants in Switzerland? *BMC Public Health*. 2021;21(1):530. doi:10.1186/s12889-021-10393-9
99....Nutbeam D. The evolving concept of health literacy. *Soc Sci Med*. 2008;67(12):2072-2078. doi:10.1016/j.socscimed.2008.09.050
100...M. Besson J. Desmeules H. Wolff J.-M. Gaspoz. Automédication chez les sans-papiers latino-américains : entre le nécessaire et l'inapproprié. *Rev Médicale Suisse*. Published online 2007:5.
101.........Gervaix J, Haour G, Michel M, Chevreul K. Impact of mental illness on care for somatic comorbidities in France: a nation-wide hospital-based observational study. *Epidemiol Psychiatr Sci*. 2019;28(5):495-507. doi:10.1017/S2045796018000203
102............Ganson KT, Weiser SD, Tsai AC, Nagata JM. Associations between Anxiety and Depression Symptoms and Medical Care Avoidance during COVID-19. *J Gen Intern Med*. 2020;35(11):3406-3408. doi:10.1007/s11606-020-06156-8
103...Schweizerische Gesundheitsbefragung 2017 Übersicht. Published online 2018.
104.Schuler D, Tuch A, Peter C. *Psychische Gesundheit in der Schweiz. Monitoring 2020. (Obsan Bericht 15/2020).* Schweizerisches Gesundheitsobservatorium.; 2020.

105....................Hostettler S, Kraft E. FMH-Ärztestatistik 2019 – hohe Abhängigkeit vom Ausland. *Schweiz Ärzteztg*. 2020;101(13):450-455. doi:10.4414/saez.2020.18725
106.....Sans-Papiers: medizinische Versorgung | Schweizerisches Rotes Kreuz. Accessed March 24, 2022. https://www.redcross.ch/de/unser-angebot/unterstuetzung-im-alltag/medizinische-versorgung-fuer-sans-papiers
107.........Medizinische Anlaufstelle für Sans-Papiers | Schweizerisches Rotes Kreuz Kanton Zürich. Published January 26, 2017. Accessed March 24, 2022. https://www.srk-zuerich.ch/fuer-sie-da/vorsorge-gesundheit/medizinische-anlaufstelle-fuer-sans-papiers
108..........Soins communautaires (CAMSCO). Accessed July 10, 2022. https://www.hug.ch/consultation/soins-communautaires-camsco
109......Out-of-pocket spending. Peterson-KFF Health System Tracker. Accessed February 16, 2022. https://www.healthsystemtracker.org/indicator/access-affordability/out-of-pocket-spending/
110.................SAMW – Schweizerische Akademie der Medizinischen Wissenschaften. Leistungssperren. Accessed March 24, 2022. https://www.samw.ch/de/Ethik/Themen-A-bis-Z/Leistungssperren.html
111........Säumige Prämienzahler - Knapper Entscheid: Nationalrat will schwarze Liste beibehalten. Schweizer Radio und Fernsehen (SRF). Published December 16, 2021. Accessed March 24, 2022. https://www.srf.ch/news/schweiz/saeumige-praemienzahler-knapper-entscheid-nationalrat-will-schwarze-liste-beibehalten
112.. Huwiler S. SVP-Mann Giezendanner will keine Krankenkasse für Sans-Papiers. Blick. Published October 1, 2016. Accessed December 7, 2020. https://www.blick.ch/politik/svp-mann-giezendanner-nimmt-sans-papiers-ins-visier-keine-krankenkasse-fuer-illegale-id5552455.html
113...Dabboubi N, Diakhate JM, Piergiovanni S. Sans-papiers mais pas sans droit à la santé. :2.
114. Y Jackson, A Angheben, B Carrilero Fernandez, J M Jansa i Lopez del Vallado, J G Jannin, P Albajar-Viñas. [Management of Chagas disease in Europe. Experiences and challenges in Spain, Switzerland and Italy]. *Bull Soc Pathol Exot*. 102(326-329).
115.........Bischoff A. The evolution of a healthcare interpreting service mapped against the bilingual health communication model: a historical qualitative case study. *Public Health Rev*. 2020;41:19. doi:10.1186/s40985-020-00123-8
116......Jaeger FN, Kiss L, Hossain M, Zimmerman C. Migrant-friendly hospitals: a paediatric perspective - improving hospital care for migrant children. *BMC Health Serv Res*. 2013;13:389. doi:10.1186/1472-6963-13-389
117...........Jaeger FN, Hossain M, Kiss L, Zimmerman C. The health of migrant children in Switzerland. *Int J Public Health*. 2012;57(4):659-671. doi:10.1007/s00038-012-0375-8
118..............Drewniak D, Krones T, Sauer C, Wild V. The influence of patients' immigration background and residence permit status on treatment decisions in health care. Results of a factorial survey among

general practitioners in Switzerland. *Soc Sci Med*. 2016;161:64-73. doi:10.1016/j.socscimed.2016.05.039

119.…Lena Schenkel. Die Stadt Zürich schafft ein neues medizinisches Angebot für Sans-Papiers.https://www.nzz.ch/zuerich/medizinische-hilfe-fuer-sans-papiers-ld.1398861. Published June 27, 2018.

120.....Statistik B für. Ausländische Bevölkerung. Published December 11, 2020. Accessed December 11, 2020. https://www.bfs.admin.ch/bfs/de/home/statistiken/bevoelkerung/migration-integration/auslaendische-bevoelkerung.html

121.Baggio S, Vernaz N, Spechbach H, et al. Vulnerable patients forgo health care during the first wave of the Covid-19 pandemic. *Prev Med*. 2021;150:106696. doi:10.1016/j.ypmed.2021.106696

122..............................Statistik B für. Armut. Accessed May 26, 2022. https://www.bfs.admin.ch/bfs/de/home/statistiken/wirtschaftliche-soziale-situation-bevoelkerung/wohlbefinden-armut/armut-und-materielle-entbehrungen/armut.html

123...........De Vito E, De Waure C, Specchia ML, Ricciardi W, Health Evidence Network. *Public Health Aspects of Migrant Health: A Review of the Evidence on Health Status for Undocumented Migrants in the European Region*. HEN, Health Evidence Network, World Health Organization Regional Office for Europe; 2015. Accessed November 18, 2021. https://www.ncbi.nlm.nih.gov/books/NBK379444

124....................Statistik B für. Bevölkerung. Accessed June 12, 2022. https://www.bfs.admin.ch/bfs/de/home/statistiken/bevoelkerung.html

125..Winters M, Rechel B, de Jong L, Pavlova M. A systematic review on the use of healthcare services by undocumented migrants in Europe. *BMC Health Serv Res*. 2018;18:30. doi:10.1186/s12913-018-2838-y

126......Ruiz-Casares M, Rousseau C, Derluyn I, Watters C, Crépeau F. Right and access to healthcare for undocumented children: Addressing the gap between international conventions and disparate implementations in North America and Europe. *Soc Sci Med*. 2010;70(2):329-336. doi:10.1016/j.socscimed.2009.10.013

127.Woodward A, Howard N, Wolffers I. Health and access to care for undocumented migrants living in the European Union: a scoping review. *Health Policy Plan*. 2014;29(7):818-830. doi:10.1093/heapol/czt061

128.the EUGATE study group, Dauvrin M, Lorant V, et al. Health care for irregular migrants: pragmatism across Europe. A qualitative study. *BMC Res Notes*. 2012;5(1):99. doi:10.1186/1756-0500-5-99

129.. .International Covenant on Economic, Social and Cultural Rights. Accessed June 7, 2022. https://www.eda.admin.ch/eda/en/fdfa/foreign-policy/international-law/un-human-rights-treaties/international-covenant-economic-social-cultural-rights.html

130......Umsetzung des UNO-Sozialpaktes in der Schweiz: Immer noch kein Aktionsplan in Sicht - humanrights.ch. Accessed May 25, 2022. https://www.humanrights.ch/de/ipf/menschenrechte/armut-sozialrechte/uno-sozialpakt-aktionsplan-schweiz

131.. .Illegale Sans-Papiers sind auszuweisen! SVP Schweiz. Published April 11, 2021. Accessed April 11, 2021.

https://www.svp.ch/news/artikel/medienmitteilungen/illegale-sans-papiers-sind-auszuweisen/