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A comparative analysis of migrant health policies and practices in the US and Switzerland

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A comparative analysis of migrant health policies and practices in the US and Switzerland

by *Rebecca Mak*

Spring 2022

SIT Switzerland: Global Health and Development Policy
Dr. Alexandre Lambert

Rice University
Social Policy Analysis, French Studies

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Abstract

Migrants compose a large proportion of the population in both the US and Switzerland. The social vulnerability of migrants has been well-established in literature, but few studies have attempted to compare healthcare policies and approaches that most effectively support migrant health using multiple measures.

To fill this gap in the literature, this study will comparatively analyze of the efficacy of US and Switzerland migrant health policies and services by assessing access to and quality of care for migrants in each country. Four main features of healthcare systems were analyzed: insurance policy, healthcare utilization, NCD outcomes, and patient perceptions of care. This analysis was built around a literature review, data analysis leveraging the 2019 US National Health Interview Survey and 2017 Swiss Health Survey, and interviews with migrant experts from each country and a migrant in Switzerland.

Switzerland had more equitable utilization patterns between migrants and citizens as well as more positive migrant perceptions of care, while the US had lower NCD prevalence among migrants than citizens. Switzerland seemed to have more equitable insurance policy, but this inference could not be confirmed due to lack of data. Ultimately, these results suggest that migrant health is better supported by health policies and practices in Switzerland than in the US.

Acknowledgements

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migrant, for taking time out of their schedule to share their research and/or personal experiences with me.

Introduction

According to the UN agency International Organization for Migration, “migrants” are people who move somewhere away from their home, whether just temporarily or permanently (“Who is a migrant?,” 2019). Migration can occur within a region, state, or country or between countries (“Who is a migrant?,” 2019). Defined by such general characteristics, migrants include a very broad population, which means there are large differences within this group (“Who is a migrant?,” 2019). This paper concentrates on international migrants, as their experiences as newcomers are more easily comparable between countries.

In recent years, the United States has received about one million immigrants from abroad annually, and in 2020, foreign-born people accounted for about 13.7% of the American population (Budiman, 2020). Switzerland, which has recently been receiving about 50,000 immigrants annually, has an even greater proportion of foreign-born residents (“Immigration to Switzerland continues to rise,” 2019). Foreign-born residents accounted for about 38% of the Swiss population in 2020 (“Population by migration status,” 2020). About 23% of the foreign-born population in the US is undocumented, while about 18% of foreign-born are undocumented in Switzerland (Budiman, 2020; “La Suisse doit mieux protéger ses sans-papiers,” 2020).

As foreigners, they are often subject to discrimination and structural oppression in their new place of residence, and the social, cultural, economic, and political challenges associated with migration have led many to consider migration status as a social determinant of health (Castañeda et al., 2015; “Study: Many Immigrants Perceive Racial Discrimination at Work, in

Health Care," 2021). Within this population, there are many migrants who are more vulnerable due to low educational attainment, lacking financial resources, and low proficiency in the local language, among many other obstacles to high quality of life (Arcury & Quandt, 2007). In the US, one of these most disadvantaged populations is Latinx migrant farmworkers, while in Switzerland, this group is Arabs, who make up the majority of people entering Switzerland due to displacement and safety threats in their home country (Arcury & Quandt, 2007; "Country Profiles: Switzerland," n.d.). To prevent these pre-existing vulnerabilities from interacting with the structural barriers to accessing high quality care in their new country, it is important for these countries to dedicate attention and resources to protecting the health of this migrant population (Castañeda et al., 2015).

The purpose of this paper is to determine which country's healthcare policies and practices are more conducive to migrant health with a focus on the most vulnerable migrant groups in each country. Much of the past literature on healthcare structures and policies to promote the best migrant health outcomes is specific to certain diseases or accessibility issues (Diaz et al., 2017). Many of these studies also have "small sample sizes and high attrition rates," leading to inability to generalize conclusions from these studies (Diaz et al., 2017). Furthermore, none of these studies compare healthcare policies between countries to identify the most effective ones in promoting migrant health; they generally conduct randomized control trials on a small scale to observe the effects of specific health policies, making this paper's approach unique (Diaz et al., 2017).

The paucity of large data-driven studies allows this paper to fill a gap in the literature by comparing migrant health policies, practices, and insurance structures between two countries with very different healthcare systems to identify the one that most effectively protects migrant

health. To do so, this paper analyzes migrant access to and quality of care as compared to that of nationals with robust survey data, interviews, and a literature review.

Background on the health policies and landscape in the US and Switzerland

Health in the US

The American healthcare system consists of a “mix of public and private, for-profit and nonprofit insurers and healthcare providers” (Tikkanen et al., 2020b). The main form of health insurance is private and employer-sponsored, but the government also funds three main public insurance programs: Medicaid, Medicare, and Children’s Health Insurance Program (CHIP) (Tikkanen et al., 2020b). Medicaid supports low-income people, pregnant women, elderly, and people with disabilities, while CHIP supports low-income children (“What immigrants and refugees need to know about the Affordable Care Act (ACA)?,” n.d.). Medicare is meant for those over 65 years of age and disabled people (Tikkanen et al., 2020b). All insurance benefits packages and costs are set by the insurers although they must comply with federal and state laws (Tikkanen et al., 2020b). States also provide healthcare support for their people by managing local coverage and safety net healthcare systems (Tikkanen et al., 2020b). These safety nets include programs for uninsured, vulnerable populations, such as federally-qualified health centers that serve these marginalized patients whether or not they are able to pay (Tikkanen et al., 2020b). These public programs are all funded by taxes, while private insurance is mostly funded by employers with a smaller percentage paid for by individuals, for-profit organizations, and nonprofits (Tikkanen et al., 2020b).

As of 2020, 28 million people, 8.6 percent of the population, were uninsured, but this rate is a marked improvement from 16 percent in 2010 when the Affordable Care Act (ACA) was

first passed by Congress (Keisler-Starky & Bunch, 2021; Tikkanen et al., 2020b). This landmark healthcare reform bill required most Americans to have health insurance, expanded coverage for young adults, and lowered eligibility thresholds for Medicaid (Tikkanen et al., 2020b). The ACA also attempted to standardize insurance plans by requiring “essential health benefits” of “emergency services, hospitalizations, laboratory tests, maternity and newborn care, mental health and substance abuse treatment, outpatient care, pediatric services including dental and vision care, prescription drugs, preventive services like vaccinations, management of chronic diseases, and rehabilitation services” (“How U.S. Health Insurance Works,” n.d.). Under the ACA, routine dental and vision care is not covered (“How U.S. Health Insurance Works,” n.d.).

These healthcare reforms were all meant to improve health equity, but not all states fully comply with ACA, which means that many Americans are still uninsured even after the passage of this bill (Tikkanen et al., 2020b). Even those with insurance face barriers to receiving care, as this insurance structure places only certain doctors “in network,” meaning not all doctors’ services will be covered by insurance (“How U.S. Health Insurance Works,” n.d.). Furthermore, besides the premium paid monthly or annually to enroll in an insurance plan, receiving health services also necessitates deductibles and/or copayments, all of which can render healthcare unaffordable (“How U.S. Health Insurance Works,” ; Kearney et al., 2021). The Kaiser Family Foundation found that “[n]early half (46%) of insured adults report difficulty affording their out-of-pocket costs, and one in four (27%) report difficulty affording their deductible” (Kearney et al., 2021).

Among the OECD countries, the US has the lowest life expectancy and highest suicide rate despite being the highest healthcare spender in the world (Tikkanen & Abrams, 2020). The US also has an inordinately high rate of “hospitalizations from preventable causes and the

highest rate of avoidable deaths” (Tikkanen & Abrams, 2020). Furthermore, the Commonwealth Fund’s International Health Policy Survey shows that the US has the highest chronic disease burden of its peer nations, with about 28% of the population reporting at least one chronic disease in 2016 (Tikkanen & Abrams, 2020). This figure makes sense considering the about 40% prevalence of obesity among the American adult population compared to the OECD country average of about 21% (Tikkanen & Abrams, 2020). The Commonwealth Fund attributed these worse health outcomes in the US to “greater use of medical technology and higher prices” (Tikkanen & Abrams, 2020).

Health disparities are also a significant problem for marginalized populations in the US, resulting in worse health outcomes, lower insured rates, and less access to the healthcare system among the disadvantaged (Ndugga & Artiga, 2021). Structural and behavioral barriers both “within and beyond the healthcare system drive these disparities” (Ndugga & Artiga, 2021).

Migrant health in the US

Migrants are included in the population considered vulnerable in the US with a much higher uninsured rate and additional barriers to care, such as a higher likelihood of being low-income (“Health Coverage of Immigrants,” 2022). These obstacles to accessing care are even more pronounced among undocumented migrants due to their legal status in the US and resulting fear of deportation (“Health Coverage of Immigrants,” 2022). Some studies have attempted to compare health outcomes among migrants to that of US citizens, but they do not align in their migrant health outcome findings (Singh & Miller, 2004). Even the literature comparing documented and undocumented migrant health conflicts (Ro & Van Hook, 2021).

One particularly prevalent theory throughout US migrant health research is the healthy immigrant paradox, a “phenomenon in which immigrants have superior health and health outcomes...as compared with US citizens” despite having disproportionately lower health insurance rates and access to care (Hall & Cuellar, 2016). A 2013 study proposed an explanation of this paradox: many immigrants return home when they become ill, leaving only the healthiest in the US (Riosmena et al., 2013). Multiple studies also show that migrant health generally declines over time to become worse than that of citizens as the effects of poor social determinants of health and acculturation as well as health disparities begin to reveal themselves (Okafor et al., 2014; Oza-Frank & Cunningham, 2010; Oza-Frank & Narayan, 2010; Ro & Bostean, 2015). In line with these studies, obesity and excess weight consistently develops among immigrants, regardless of their country of origin, the longer they reside in the US, and this trend is exacerbated by lower socioeconomic status (Singh et al., 2011). With obesity and excess weight as a precursor to many chronic diseases, studies insist that this disproportionate increase in obesity/overweight leads to health disparities in chronic disease prevalence among immigrant groups as compared to citizens (Hall & Cuellar, 2016).

Health in Switzerland

The main feature of the Swiss healthcare system is its health insurance mandate, which ensures almost all residents can access healthcare services, and its decentralized structure (Tikkanen et al., 2020a). Each canton, the equivalent of an American state, has significant power in shaping the local healthcare system, as they own many hospitals, license providers, subsidize premiums, and coordinate hospital services (Tikkanen et al., 2020a). The federal government is more involved in regulation of financing and pharmaceutical and medical technology safety

(Tikkanen et al., 2020a). All insurers in Switzerland are private but not for profit (Tikkanen et al., 2020a). This insurance is not sponsored by employers and is primarily funded by taxes at all levels of government and mandatory insurance premium payments (Tikkanen et al., 2020a).

Insurers are required to provide the same baseline package of benefits at the same price for all in a premium region, regardless of pre-existing conditions and income level (Tikkanen et al., 2020a). However, for voluntary private health insurance that provides additional benefits, insurers may reject applications due to medical conditions, and these plans can be for-profit and employer-sponsored (Tikkanen et al., 2020a).

Within the mandatory health insurance package, “hospital inpatient services, most general practitioner (GP) and specialist services, an extensive list of pharmaceuticals and medical devices, home care services, physiotherapy (if prescribed), some preventive measures like selected vaccinations, maternity care, outpatient care for mental illness, medically necessary long-term care, and hospice care if there is an underlying disease” are all covered (Tikkanen et al., 2020a). Like the baseline American insurance package, routine vision and dental care are not covered by the mandatory benefits package (Tikkanen et al., 2020a). Since insurance is expensive, even more so than in other OECD countries, higher deductibles with lower premiums are also offered for those who cannot afford the higher premium and lower deductible for the baseline package (“Health at a Glance 2021: OECD Indicators,” 2021; Tikkanen et al., 2020a). Copays are paid on most services as well, except for services like maternity care, which are exempt from deductibles and copayments (Tikkanen et al., 2020a). Those who cannot afford insurance can also apply for cantonal government income-based subsidies to pay for mandatory insurance premiums (Tikkanen et al., 2020a).

Switzerland's healthcare costs are the second highest in the world after the US, but their health outcomes are much better than the US, indicating greater efficiency in their healthcare system (Tikkanen & Abrams, 2020). The country boasts the longest life expectancy of all OECD countries as well as a suicide rate, obesity rate, rate of hospitalization from preventable causes, and chronic disease prevalence rate that are all lower than the OECD averages ("Health at a Glance 2021: OECD Indicators," 2021; Tikkanen & Abrams, 2020).

Despite the well-established high quality of health, health disparities among the low-income, those with low levels of education, and migrants still exist in Switzerland ("Health equity," 2021; Lehmann et al., 1990). For example, those with lower levels of education are two times more likely to have diabetes, 27% more likely to have lower quality of self-reported health, and 13% more likely to have hypertension ("Health equity," 2021). These health figures suggest a higher chronic disease burden among vulnerable populations ("Health equity," 2021).

Migrant health in Switzerland

A 2016 study showed a greater chronic disease burden among migrants than Swiss nationals, and a 2014 study using SHS 2010 results suggested that migrants more frequently report poor health than Swiss citizens (Rellstab et al., 2016; Volken & Rüesch, 2014). The Federal Office of Migration Swiss migrant population health monitor (GMM) stated lower overall health quality among migrants due to three main sources: infectious diseases caught in their home country or while traveling, psychological burden of migration, health deterioration as a result of poor living and/or working conditions in Switzerland (Kaya, 2007). Migrants are also more prone to high-risk health behaviors like poor diet and lack of exercise, which has increased

their risk of obesity and chronic illness as compared to the Swiss population (Kaya, 2007).

Health disparities have also been reported between migrant sub-groups (Kaya, 2007).

Unlike the US, most Swiss studies show consistently poorer health outcomes among migrants as compared to Swiss citizens, but one particularly prominent study by le Bureau d'études de politique du travail et de politique sociale (BASS) observed the healthy immigrant paradox as well (Rellstab et al., 2016; "Second monitoring on the migrant population's state of health in Switzerland (GMM II)," n.d.). This in-depth data-driven study found that migrants tended to be healthier than the citizen population when they first arrived in Switzerland, but like in the US, the health of these individuals tended to worsen over time ("Second monitoring on the migrant population's state of health in Switzerland (GMM II)," n.d.). Contrary to American studies on the healthy immigrant paradox, this study proposed the return of younger, healthy migrants back to their home country after several years of working in Switzerland and the retention of ill migrants due to better healthcare in Switzerland as a reason for poorer health outcomes among long-time Swiss migrants ("Second monitoring on the migrant population's state of health in Switzerland (GMM II)," n.d.). The cumulative effects of employment volatility, more responsibilities (especially concerning integration), lack of support from older family members were also suggested as the basis of these poorer health outcomes ("Second monitoring on the migrant population's state of health in Switzerland (GMM II)," n.d.).

Methods

This mixed methods comparative analysis of the efficacy of each country's migrant health policies and services delved into four elements: inclusivity of insurance policy, utilization patterns, NCD outcomes, and patient perceptions of care. The first two measures were assessed

as indicators of access to care, while the latter two were assessed as indicators of quality of care although all four are very closely intertwined.

Insurance and related health policies are important to analyze because they set the standards for how migrants will pay for care and how much government aid they will have in paying for care, which directly influences access to care.

Healthcare service utilization, or simply “utilization”, was used as an indicator of access to healthcare because when people are unable to access the healthcare system, whether it is due to lack of transportation, time, necessary financial resources, or other reasons, they will not seek health services (Institute of Medicine (US) Committee on Monitoring Access to Personal Health Care Services, 1993).

As the most frequent causes of death in both the US and Switzerland, non-communicable disease (NCDs) prevalence and self-reported health status were selected as the focus of the health outcomes element to this analysis because development and exacerbation of these conditions is tied to poor prevention and management services for NCD risk factors ("About Chronic Diseases," 2022; Macinko et al., 2011; Mattig & Chastonay, 2017). Depression, diabetes, hypertension, chronic lung disease, and cancer prevalence were specifically used because these are the most common types of NCDs in these countries ("Noncommunicable diseases," 2021). Perception of poor health has also been used to measure quality of care in past studies (Gishu et al., 2019). Although these health outcomes are also indicative of access to care, it was decided that they would fit better in the quality-of-care analysis based on the interview data collected.

Finally, patient perception of quality of care was used as the final factor because this data provides direct measurement of care quality.

To identify the main features of the Swiss and American healthcare systems and the four main features upon which this analysis hinges, three sources of data were used: secondary data from literature reviews, primary data from national health surveys in each country, and both primary and secondary data from interviews.

The literature review was conducted using Google Scholar. The following search terms were used: “migrant health”, “immigrant health”, “Switzerland”, “US”, “NCD outcomes”, “chronic disease”, “health disparities”, “healthcare utilization”, “insurance policies”, “migrant health policies”, “barriers to access to care”, and “migrant perception”. This literature review not only provided an outline of healthcare resources and protections available to migrants in each country, but also laid the foundation for the data analysis and helped explain these data-driven results.

The primary data for health outcomes and utilization patterns was found using the most recent Swiss Health Survey (SHS) conducted in 2017 and the US Centers for Disease Control (CDC) National Health Interview Survey (NHIS) from 2019. NHIS 2019 was not the most recent NHIS, but this data set was used because the most recently available one from 2020 encountered many sampling issues due to COVID-19 and was slightly less reliable. Since the variables for health outcomes were the same from each survey, these were directly compared against one another, while utilization necessitated a more contextual analysis specific to the country.

This public primary data is powerful because these surveys’ sample sizes are incredibly large and representative of each population due to their strong funding by their respective government. With variables for citizenship, data for health insurance status, specific NCD outcomes, health cost-related issues, and utilization could be disaggregated by citizenship status. Not having citizenship was used as a proxy for migrant status. This analysis was conducted in

Excel and was purely descriptive. After coding data to remove non-response data points, defined as refused, not ascertained, and uncertain responses, relevant variables were analyzed against citizenship status.

NHIS provided raw data sets in Excel, which allowed for more specific data analysis. The variables used were those for citizenship (CITZNSTP_A), number of urgent care visits in the past 12 months (URGNT12MTC_A), number of emergency room visits in the past 12 months (EMERG12MTC_A), insurance status and type (COVER_A), whether care was forfeited (MEDNG12M_A) or delayed (MEDDL12M_A) due to cost, usual place of care (USPLKIND_A), depression prevalence (DEPEV_A), chronic lung disease prevalence (COPDEV_A), diabetes prevalence (DIBEV_A), hypertension prevalence (HYPEV_A), cancer prevalence (CANEV_A), and self-rated health status (PHSTAT_A).

The SHS data was not raw, so pre-made tables that evaluated these variables against citizenship status were used. Tables for self-rated health (“État de santé auto-évalué”) and each relevant NCD outcome were available, but corresponding insurance status and utilization variables to those provided by NHIS were not. Insurance status was likely presumed to be 100% of the population because it is legally mandated by the Swiss government. For utilization, tables regarding the number of consultations with a general doctor in the past 12 months (“Nombre de consultations chez un médecin généraliste au cours des 12 derniers mois”) and number of days hospitalized in the past 12 months (“Nombre de jours d'hospitalisation au cours des 12 derniers mois”).

Since it is difficult to operationalize patient perception of care, secondary data from literature reviews and anthropological ethnographies were used to build a narrative around migrant patient perspectives of quality of care in their new country. These observations are

supported by in-person and e-mail interviews with migrant health experts in the US and Switzerland as well as an undocumented Tunisian migrant in Switzerland. Professor Sara Quandt, Associate Professor of epidemiology and prevention at Wake Forest University School of Medicine was the American expert consulted, while Badia El-Koutit, the Executive Director and Founder of Association pour la Promotion des Droits Humains (APDH), and an unnamed migrant were consulted in Switzerland. These interviews also supported findings from the policy, utilization, health outcomes, and measures.

To select these interviewees, five American migrant health experts were found by identifying the e-mail addresses of the authors of the most frequently cited migrant health literature in the US. One of the five responded after repeated follow-up emails and was interviewed. Ms. El-Koutit was contacted and interviewed after an SIT lecture at APDH, and she offered to contact an undocumented Tunisian migrant to further this research project. This migrant, who will be called Fatima for privacy purposes, was interviewed via e-mail with questions in French to avoid language barriers and maintain anonymity. These questions were also crafted with sensitivity to avoid triggering negative healthcare-related traumas or prying too deeply into Fatima's life. Due to the non-response and snowball sampling of interviewees, data collected from them may be biased. All interviewees were informed of the use of the qualitative data provided and were asked for written and oral consent to ensure the interviews complied with the ethical obligations of research.

Analysis

Access to care

Insurance policy for migrants in the US

Most migrants in the US, like US citizens, are not required to have insurance unless they reside in a state that has maintained the initial ACA penalty for not having health insurance, but on a national level, there have been efforts to encourage insurance uptake (Tolbert et al., 2019). To support affordability of insurance, the Affordable Care Act provides public aid, such as “advanced tax premium credits and cost-sharing subsidies” for the low-income as well as an expansion of Medicaid eligibility and regulations for the health insurance market (Ku & Jewers, 2013; Pandey et al., 2014). CHIP is also available to low-income, legally present migrants under the age of 19 (Ku & Jewers, 2013; "What immigrants and refugees need to know about the Affordable Care Act (ACA)?," n.d.). However, these financial assistance provisions and public insurance programs are not available to undocumented migrants, forcing these migrants to turn to private health insurance, which is often unaffordable due to high prices and this lack of public aid (Ku & Jewers, 2013; Pandey et al., 2014). Legal migrants are also at a disadvantage, as Medicaid expansion, if passed in their state, and CHIP still do not apply to them unless they have lived in the US for more than five years (Ku & Jewers, 2013; Pandey et al., 2014). Legal migrants may receive health insurance exchange subsidies without this five-year residency requirement, but these plans are “not as comprehensive as Medicaid[;] and, unfamiliarity with private health insurance may make it difficult to navigate the healthcare system” (Pandey et al., 2014). As a result, the ACA provisions are not fool proof in addressing unequal access to care in the US and ensuring that vulnerable populations, particularly migrants, are insured (Ku & Jewers, 2013; Pandey et al., 2014).

Individual states with more progressive attitudes towards health insurance have also taken matters into their own hands by creating programs that lower costs associated with insurance (Tolbert et al., 2019). For example, states have enacted their own income-based subsidy program to help pay premiums as well as avenues through which insurers can be partially reimbursed for specific “high cost claims, which in turn, enables insurers to lower premiums” (Tolbert et al., 2019). Some states have even removed the five-year waiting period for legal migrants to be eligible for public insurance (Tolbert et al., 2019).

Based on NHIS survey results, it is evident that migrants are disproportionately more often uninsured than citizens in the US, with more than one in three migrants uninsured as compared to about 1 in 10 citizens uninsured (see Fig. 1). Of the insured, a similar percentage of migrants and American citizens have public insurance, while about 20% fewer migrants have private health insurance than American citizens (see Fig. 1). Furthermore, “despite living well below the poverty line, less than one third of migrant women qualify for Medicaid, primarily due to their unauthorized status” (Holmes, 2012). These statistics reveal the inadequacy of these health insurance policies and the insurance structure in protecting the health of and insuring the entire migrant population. Quandt discussed the issue of the American system’s heavy use of employer-sponsored private insurance, something that is not available to many migrants because they usually do not work for large companies that have the revenue to fund these programs.

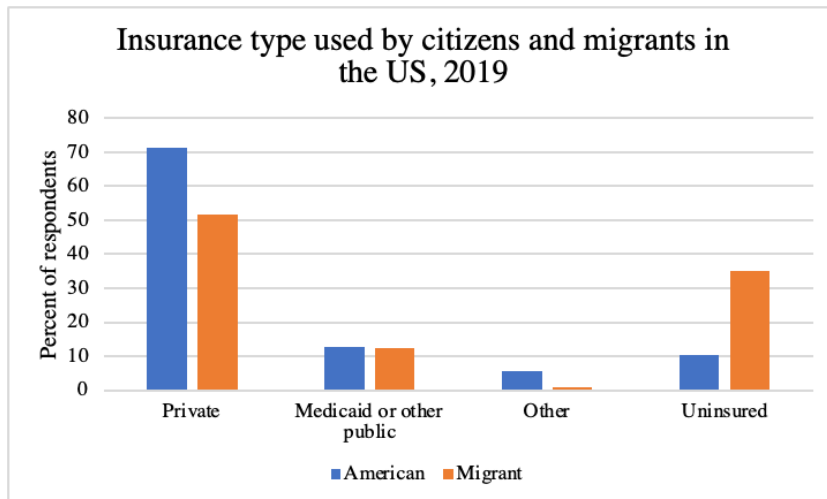


Figure 1. Types of insurance held as a percentage of the total migrant (orange) and US citizen (blue) populations, respectively, in 2019. “Medicaid and other public” includes Medicare, CHIP, military and veteran insurance plans, Indian Health Service insurance, and state-sponsored insurance programs. “Other” is defined as insurance from another government program. Data sourced from the NHIS 2019.

Professor Quandt and past literature have both discussed these inadequacies in more detail. “Many migrants don’t even know that they are eligible for public insurance or that this form of insurance exists,” said Quandt. Among the reasons for not enrolling in health insurance, whether public or private, are language barriers and low literacy, which may prevent migrants from being able to understand forms for insurance registration, eligibility, and relevant processes (“What immigrants and refugees need to know about the Affordable Care Act (ACA)?,” n.d.). The majority of these resources are also available in Spanish, but it is often not the maternal language of these migrant workers, who generally speak a lesser-known indigenous dialect, or migrants who are not from Spanish-speaking countries (Holmes, 2012; S. Quandt, personal communication, April 19, 2022).

Low digital literacy and lacking access to necessary technology pose another barrier to being able to fill out forms and read notices sent by insurance companies (“What immigrants and refugees need to know about the Affordable Care Act (ACA)?,” n.d.). Hesitancy to interact with

the government or large institutions like insurance providers, which stems from fear of deportation, also negatively affects insured rates among undocumented migrants ("What immigrants and refugees need to know about the Affordable Care Act (ACA)?," n.d.). This fear and hesitancy are present even among legally present migrants on visas and is exacerbated by the often "anti-immigrant sentiment rampant in the communities surrounding them" (S. Quandt, personal communication, April 19, 2022).

The most common issue is cost because even with the sliding scale for payment through government insurance programs, payment is still too expensive for many of these migrant farmworkers, who are the lowest paid employees in the US (S. Quandt, personal communication, April 19, 2022). In many states, these farmworkers are paid less than minimum wage, which means health insurance is even further out of reach than for most low-income US citizens, even if they benefit from public assistance (S. Quandt, personal communication, April 19, 2022).

Finally, the problem of different cultural understandings of health insurance hinder insurance uptake (S. Quandt, personal communication, April 19, 2022). "Some of these migrant workers come from countries where they don't need to pay for health insurance, so they don't know that they need to enroll in an insurance plan or apply for public insurance," said Quandt.

None of these barriers are fully accounted for or accounted for at all in US insurance policy, which means that these policies do not alleviate obstacles to insurance enrollment and to accessing care for migrants. The effects of this inadequacy are clear in the much lower insured rates among migrants (Holmes, 2012). These deficiencies are even more pronounced for unauthorized migrants who are nearly completely excluded from these assistance policies (Pandey et al., 2014; Wilson et al., 2020).

Insurance policy for migrants in Switzerland

All migrants who have been in Switzerland for at least three months are entitled to the mandatory basic health insurance package through Article 12 of the Federal Constitution of the Swiss Confederation and article 41b of the Federal Constitution, which demands that the government provides everyone with “access to the health care they require” (Bilger et al., 2011).

Defined as a “fundamental right” in the Federal Constitution, healthcare access is also extended to undocumented migrants who have been present for three or more months in Switzerland (Bilger et al., 2011). They may register for the basic health insurance plan with any private insurance company and have the right to be “insured by their employers against risk of accident and occupational disease,” just as any other resident or citizen of Switzerland (Bilger et al., 2011). To ensure that companies do not discriminate, the Federal Social Insurance Office sanctions insurance companies that do not accept undocumented applicants, and cantons play a large role in monitoring insurance company behavior (Bilger et al., 2011). Each canton must also uphold the right to healthcare and may interpret the degree of healthcare provided as long as it does not infringe upon the minimum threshold set forth in Article 12 (Bilger et al., 2011). According to Executive Director of APDH Badia El-Koutit, the German-speaking cantons of Switzerland are much more restrictive in the care they make available to undocumented migrants as compared to the French-speaking cantons.

On the federal level, access to care has remained a priority (Bilger et al., 2011). The Swiss Peoples Party has attempted to eliminate this right to basic insurance for undocumented migrants, but the Federal Council has upheld the universal right to basic high quality healthcare for all who reside in Switzerland beyond just emergency care (Bilger et al., 2011). Furthermore,

the Law on Health Insurance also requires reduced premiums and canton-sponsored grant subsidies for the low-income, including undocumented migrants (Bilger et al., 2011).

Despite these policies that protect the right to healthcare for all migrants, including undocumented ones, and the government's assumption that all residents in Switzerland are insured, many migrants are uninsured, which means healthcare is inaccessible (Bilger et al., 2011). Those who are not insured must pay deposits that cost thousands of CHF to receive any services besides emergency ones, rendering care unaffordable for most uninsured and thus many migrants, particularly undocumented ones (Bilger et al., 2011). However, there are many avenues for migrants to receive aid in paying for care aside from health insurance (Bilger et al., 2011). Migrants may use their employer's accident insurance if they had an accident within or outside of their place of work, social funds from their canton or municipality, provider funds that certain hospitals and clinics have set aside for the uninsured, and special patient payment plans that can be negotiated by non-profits with the provider (Bilger et al., 2011). Migrant children, regardless of insurance status, have greater access to primary care due to free, mandatory services, such as check-ups, dental screenings, and vaccinations through their school (Bilger et al., 2011).

El-Koutit discussed the reality of health insurance for migrants, including undocumented ones and claimed that although the policies seem inclusive at face value, there are many flaws that prevent migrants from enrolling in the mandatory basic health insurance. Language barriers and low literacy are some of the main problems for migrants attempting to register for insurance, as "the contracts are very hard to understand for even native French speakers, even harder for migrants" (B. El-Koutit, personal communication, April 14, 2022). These language barriers also pertain to discussion with insurance providers, preventing many migrants from being able to

properly register for a plan and discussing issues with their insurance provider (B. El-Koutit, personal communication, April 14, 2022). “I often have families come to me to help them understand how to deal with correspondences from their insurance,” said El-Koutit. Since only those who are initially entering the country as a refugee have access to a social assistant who can explain these contracts and different plans to them, other migrants and refugees who no longer have an assistant are left confused and lacking appropriate information (B. El-Koutit, personal communication, April 14, 2022). Another source of this insurance rate disparity is the online placement of insurance plan information, insurance registration, sources of social assistance in paying for insurance, and the applications for these programs (B. El-Koutit, personal communication, April 14, 2022). “Many migrants, especially low-income ones, don’t have a computer or digital literacy and digital skills, so they have trouble accessing important information and forms,” mentioned El-Koutit. The final structural barrier to enrolling in health insurance is the price of the premiums and copayments according to El-Koutit. These insurance charges are especially burdensome for low-income, the unemployed, and large families, making insurance out of reach (B. El-Koutit, personal communication, April 14, 2022). Undocumented migrants are not legally allowed to work in Switzerland, but many still have a paid job although these jobs are often volatile with poor remuneration (Islas, 2016). Fatima, like many other unemployed, undocumented migrants, cannot afford health insurance and is forced to live uninsured, relying on cantonal assistance programs for healthcare (Fatima, personal communication, April 20, 2022). For those with work, the canton may give a subsidy to help pay for their premium, but many do not know about this form of assistance due to insufficient dissemination of information about these aid programs in languages and forms understood by migrants (B. El-Koutit, personal communication, April 14, 2022).

Beyond structural obstacles to acquiring insurance, El-Koutit also explained that there are several behavioral barriers. One of these issues for those who are eligible for subsidies is fear of negative repercussions for a future residency application if undocumented or a residency renewal application if already regularized (B. El-Koutit, personal communication, April 14, 2022). According to El-Koutit, receiving social assistance does not negatively affect permit applications unless the migrant “takes everything using social services.”

Further obstacles arise due to cultural conceptions of healthcare and health insurance (B. El-Koutit, personal communication, April 14, 2022). Migrants who come from countries with far more socialized healthcare systems or with different insurance schemes may not understand the importance of having health insurance and prioritizing the payment of this insurance (B. El-Koutit, personal communication, April 14, 2022). “They don’t always initially understand that failure to pay insurance premiums and copays may result in further fines and court hearings,” said El-Koutit.

Despite these challenges, migrants have found bandaid solutions to improve their healthcare access. El-Koutit mentioned the following example: “Migrants will often ask friends for their insurance card, so they can go to a private doctor who will receive them and use their friend’s insurance.”

Even though there are many policies that seem to extend access to care to migrants, regardless of their legal and insurance status, these policies are not as effective in practice because they do not address the multitude of other barriers related to receiving care, leaving many migrants uninsured (“Providing medical care to the hidden uninsured,” 2004).

Furthermore, this mandatory health insurance policy and subsequent assumption of a 100%

insured rate results in the scope of the uninsured falling through the cracks because this data is not collected on this population (Tikkanen et al., 2020a).

Migrant healthcare utilization and assistance-seeking behavior in the US

Beyond the hospital, doctor's offices, and health clinics available to all people in the US, the government has also funded specific hospitals and clinics with disproportionate share hospital (DSH) subsidies as well as other "capacity-building" funds to serve uninsured migrants (Pandey et al., 2014). The US Department of Health and Human Services Health Resources and Services Administration (HRSA) has also funded the creation of migrant health centers across the country (Arcury & Quandt, 2007). HRSA funding is allocated to non-profits who provide migrant health service outreach in the workplace and their own clinics, legal aid related to healthcare, health education programs, and community health worker services (Arcury & Quandt, 2007). Federally qualified health centers, clinics funded by HRSA to serve uninsured patients, also serve many migrants (Arcury & Quandt, 2007; "Federally Qualified Health Centers," 2018).

Despite these efforts to increase care access points for migrants, regardless of insurance status, healthcare utilization among migrants as compared to US citizens is still lower based on their self-reporting of urgent care and emergency care visit frequency (see Fig. 2a and 2b). More migrants have no medical visits per year than citizens, and there are fewer migrants in each frequency category of these types of medical visits per year (see Fig. 2a and 2b). The one exception is in the two to four visits per year category of urgent care, in which there were 0.4% more migrants than US citizens, but this proportion is so small that it may not even be statistically significant (see Fig. 2a).

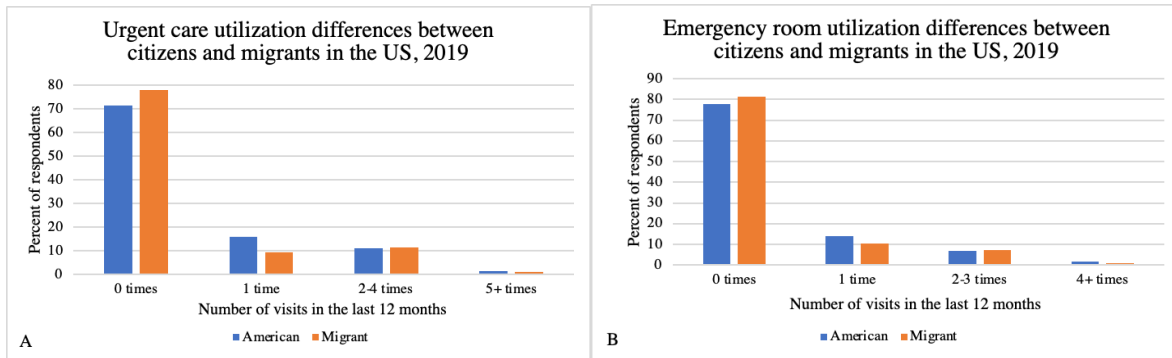


Figure 2a. Frequency of urgent care visits in the past year as reported by US citizens and migrants in 2019. Proportion of citizens and migrants reporting each frequency is shown in blue and orange, respectively. Urgent care includes visits to a clinic in a grocery or drug store. Data sourced from the NHIS 2019. **Figure 2b.** Frequency of emergency room visits in the past year as reported by US citizens and migrants in 2019. Proportion of citizens and migrants reporting each frequency is shown in blue and orange, respectively. Data sourced from the NHIS 2019.

Although there is generally lower healthcare utilization among migrants, Figure 3 suggests that migrant reliance upon urgent care and emergency care is heavier than that of US citizens, with these services making up about 11% of care for migrants and about 8% of care for US citizens (see Fig. 3). For primary care provided in a doctor’s office or health center, there is an about 3% difference between US citizens and migrants with citizens being more likely to use primary care.

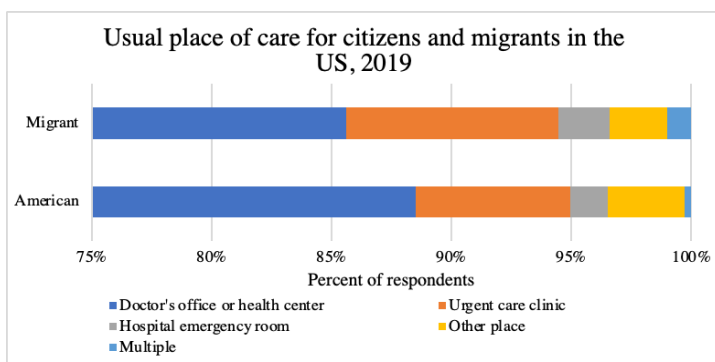


Figure 3. Proportion of US citizens and migrants receiving care from a doctor’s office or health center, urgent care clinic, hospital emergency room, another place, or multiple of these categories, shown in blue and orange, respectively, in 2019. Urgent care clinic includes clinics at grocery and drug stores. Data sourced from NHIS 2019.

Past studies of migrant healthcare utilization reflect the same patterns of overall lower usage of healthcare services but on average, more frequent emergency room visits than US citizens (Wilson et al., 2020). However, it is important to note that this reliance upon the emergency room does not necessarily mean overutilization because migrants do not often seek care (Wilson et al., 2020).

One the most prominent reason for this utilization pattern is likely cost according to Professor Quandt and much of the relevant literature (Arcury & Quandt, 2007; Velez et al., 2017). Disproportionately lacking insurance, migrants are much more likely to delay or forfeit care due to cost with about 5.6% more migrants delaying care and about 5.4% more migrants forgoing care than US citizens (see Fig. 5). Even if they have insurance, these copayments are still too heavy a burden for their low wages (S. Quandt, personal communication, April 19, 2022). For example, a physician in a migrant health center described a patient with Valley Fever, which “requires anti-fungal suppression medicines for life[:]

‘He’s not doing as well. But at least he’s surviving. Basically, he’s going to need \$1000 a month of Diflucan for life. Of course, this guy cannot afford even \$100 a month’”

(Holmes, 2012).

This finding reveals a systemic problem of affordability of care services for vulnerable populations.

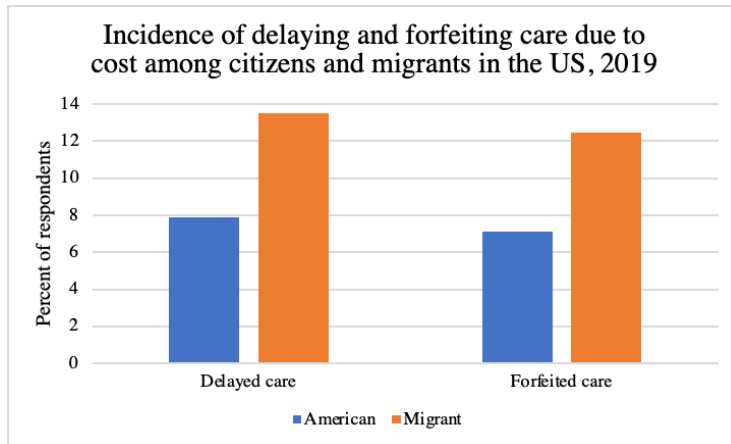


Figure 5. Percentage of US citizens and migrants who had to delay or forfeit care due to cost in 2019, shown in blue and orange, respectively. Data sourced from NHIS 2019.

Unlike the migrants in Switzerland, migrants in the US are very unlikely to ask friends for loans or take loans out from a bank, the latter of which is impossible for undocumented migrants, to pay for health services. As a result, they may delay or forgo care until their health reaches a dire point, and they must seek emergency medical attention, leading to higher emergency room use (Pourat et al., 2014).

Quandt also referenced the living situations of many migrant farmworkers as a barrier to utilizing care, saying that many live in rural areas with “literally no physical access to care and lack of transportation at their disposal.” The shortage of federal Migrant Health Program clinics exacerbates this lack of access, as the current migrant health clinics only “serve[s] approximately 13% of the intended population of migrant laborers” (Holmes, 2012; Villarejo, 2003). There is also a mismatch between the farmworkers’ long work hours and the limited time that nearby clinics are open as well as significant consequences of missing work: “when work is missed as a result of obtaining health services, a farmworker’s income declines substantially, causing economic hardship for family members in the United States and [in their home country], as well as for the farmworker him/herself” (Arcury & Quandt, 2007).

Beyond these external barriers, Quandt highlighted the misinformation and lack of knowledge among migrant workers: “they don’t necessarily know where they can get care, and they assume they cannot get care because they are not citizens or because they will be charged large amounts of money that they cannot pay.”

Another reason for hesitancy to seek care for undocumented migrants is fear of deportation (Arcury & Quandt, 2007). Unlike Switzerland, the US does not have an explicit law against providers sharing the immigration status of their patients, but they are not legally required to share it. According to Quandt, deportation of undocumented migrants due to provider reports to authorities is “practically unheard of.”

Cultural norms may also influence migrant healthcare utilization (S. Quandt, personal communication, April 19, 2022). Many Latinx farmworkers may see “illness as God’s will or divine penalty caused by prior or current sinful behaviors” or a result of folk diseases, so they would seek folk healers or traditional medicine, such as “herbal remedies,” to treat themselves at home with much lower cost burden than Western medicine (Arcury & Quandt, 2007; Yang & Hwang, 2016). These beliefs can be detrimental to migrant health, as they may “delay medical care, ignore medical treatments, and choose not to engage in preventive behaviors” as a result (Arcury & Quandt, 2007). Furthermore, for the undocumented, traditional healers are seen as a space safe from police where they can receive care, so many choose to go there instead of a biomedical clinic (Kline, 2022).

Despite the funding for special migrant health services and clinics, these resources and policies are simply not enough to satisfy the healthcare needs of the migrant population and ensure they are able to access care in practice, as shown by the lower healthcare utilization of migrants (S. Quandt, personal communication, April 19, 2022). Additionally, higher emergency

room and urgent care utilization paired with higher frequency of delayed or forfeited care indicate that migrants are unable to efficiently access the healthcare system; the inaccessibility of care negatively affects their health because it causes them to wait until their situation is dire before seeking aid (Holmes, 2012; "Overuse of Emergency Departments Among Insured Californians," 2006). Many other factors from culture to transportation play a role in their ability to access care, and these barriers must be addressed in programs and policies to improve utilization patterns among the migrant population, both for the documented and the undocumented (Holmes, 2012; S. Quandt, personal communication, April 19, 2022).

Migrant healthcare utilization and assistance-seeking behavior in Switzerland

In Switzerland, migrants may receive services from any clinic, hospital, or other healthcare provider, whether or not they have insurance (Bilger et al., 2011). Undocumented migrants may seek care at public hospitals, “drop-in centres run by non-profit or non-governmental organizations,” and facilities offering “publicly (co-)financed services offering specialised care” for particular conditions and risk groups (Bilger et al., 2011). The distribution of these healthcare services for the undocumented are distributed very unevenly between different cantons, corresponding the canton’s attitude towards migrants and social policy (Bilger et al., 2011). These cantonal differences change access to care and utilization patterns for migrants in different regions (Bilger et al., 2011). For example, in the canton of Geneva, the Consultation ambulatoire mobile de soins communautaires (CAMSCO) provides care to uninsured people, including migrants, who are more than 16 years old ("La santé à Genève," 2017). CAMSCO provides urgent care, primary care, preventive care, gynecological and maternal services, mental health services, and urgent dental care ("La santé à Genève," 2017).

El-Koutit explained that “through CAMSCO, [migrants] can speak with the nurse, and they can have a consultation and be sent to a hospital, but only a hospital. Sometimes, the government pays for everything, but if they work, the social assistance agency might ask them to pay part of it.” For those living in the canton of Geneva, this program provides a strong healthcare safety net because it includes such a wide variety of services and a fairly practical financing approach (B. El-Koutit, personal communication, April 14, 2022). Undocumented Tunisian migrant Fatima uses CAMSCO when she is sick because she does not have insurance and finds it very helpful.

Beyond geographical difference in availability, other barriers to ease of accessing care are “discrimination, language difficulties, differing concepts of health and illness, lack of knowledge and information about the health system and healthcare institutions in Switzerland”, all of which discourage migrants from seeking care (Kaya, 2007). Another study mandated by the Federal Office of Public Health referenced the same challenges in addition to lacking interpreter services, cultural incompetency of providers, and low migrant confidence in healthcare institutions (Moreau-Gruet & Luyet, 2011). A 2007 study by the University of Neuchâtel Swiss Forum for Migration and Population Studies linked these obstacles to “underuse or inappropriate use of health services by the migrant population” (Kaya, 2007). El-Koutit also added fear of deportation among undocumented migrants and cost of care even for the insured as reasons for delaying or forgoing care. However, to encourage interaction with the healthcare system among undocumented migrants, all healthcare providers and insurance companies are “bound to professional secrecy” and may not share their patients’ or clients’ legal status of residence based on Article 321 of the Swiss Criminal Code and Article 84ff of the Law on Health Insurance (Bilger et al., 2011).

A 2020 migrant health study by the Federal Office of Public Health, using SHS 2017 data, found about equal availability of general practitioners to migrants and Swiss citizens, but divergent utilization patterns between migrants of different origins. Their access to the raw survey data allowed them to observe that non-European migrants were less likely to seek specialist attention and more likely to utilize emergency department services, both of which are findings that are not visible in Figures 6a and 6b (Tzogiou et al., 2021). The broader SHS 2017 data available to the public showed no statistically significant differences in hospital and general practitioner utilization between migrants and Swiss citizens (see Fig. 6a and 6b).

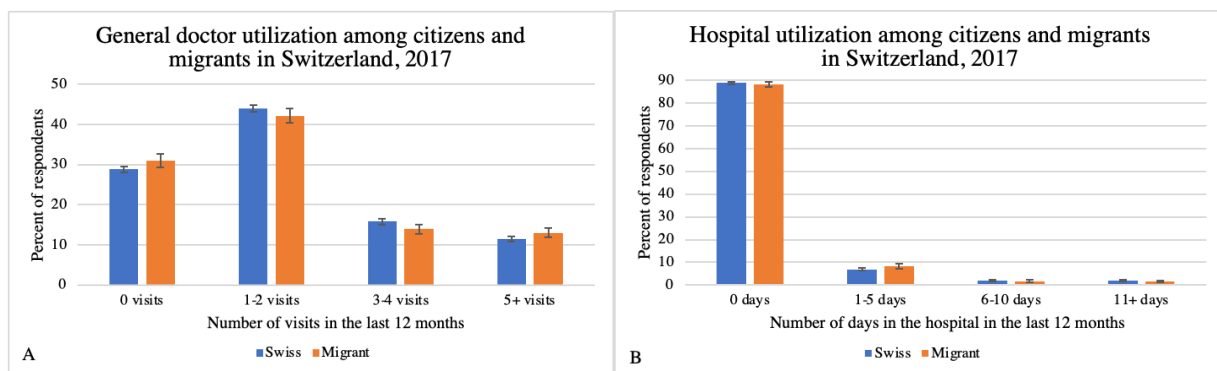


Figure 6a. Frequency of general doctor visits in the past year as reported by Swiss citizens and migrants in 2017. Proportion of citizens and migrants reporting each frequency is shown in blue and orange, respectively. General doctor is defined as family doctors and general practitioners. Error bars represent 95% confidence intervals. Data sourced from SHS 2017. **Figure 6b.** Days spent in the hospital in the past year as reported by Swiss citizens and migrants in 2017. Proportion of citizens and migrants reporting each time length is shown in blue and orange, respectively. Error bars represent 95% confidence intervals. Data sourced from SHS 2017.

Fatima, a native French speaker from Tunisia, did not echo all of the same concerns. She spoke confidently of the Swiss healthcare system, saying she has “no difficulty” in navigating it and has a regular source of care. However, just as past studies found, her main source of care is the emergency room of Hôpital d’Université de Genève, and she usually waits about a week after she begins feeling ill to seek help. Thus, there is usually a short delay of care although she did

not cite the reason for this delay. This tendency to delay care has been frequently observed among undocumented migrants in particular (Wyssmüller & Efionayi-Mäder, 2011).

These results suggest that as a whole, the migrant population has similar utilization patterns to the Swiss population, but at a more disaggregated level, there are inequalities among migrants that put some sub-groups, specifically non-European migrants, at a disadvantage in their interactions with the healthcare system (Tzogiou et al., 2021). These inequalities present themselves as overutilization of emergency care and underutilization of preventive and primary care; these usage patterns tend to promote lower quality of care within the whole healthcare system and worse health outcomes, particularly among emergency department overutilizers who usually delay care until their condition becomes dire ("Overuse of Emergency Departments Among Insured Californians," 2006; "Providing medical care to the hidden uninsured," 2004; Rasouli et al., 2019; Wyssmüller & Efionayi-Mäder, 2011). These internal disparities suggest that policies more tailored to the most vulnerable sub-groups of migrants are necessary to protect their health and improve their utilization practices, but overall, these health policies are more successful than those in the US, which have engendered lower care utilization, greater reliance on emergency services, and more pronounced uninsured rates among their migrant population.

Quality of care

Comparison of health outcomes among migrants in the US and Switzerland

In the US and Switzerland, ratings of self-reported health were distributed similarly between migrants and citizens (see Fig. 6). The vast majority of migrants and citizens in both countries rated their health "Very good" or "Good" (see Fig. 6). In Switzerland, 3% more citizens rated their health as "Very good or "Good," and this difference is statistically significant

($p < 0.05$, see Appendix Fig. A1). About 1.1% more migrants than Swiss citizens rated their health as “Fair”, but this difference was not statistically significant ($p > 0.05$, see Appendix Fig. 1). Among those who rated their health “Very bad” or “Bad”, there were 1.9% more migrants than citizens, which was statistically significant ($p < 0.05$, see Appendix Fig. 1). From these results, it can be deduced that Swiss citizen health is generally better than that of migrants, but only marginally, as suggested by the small magnitude of rating proportion differences. These findings are supported by multiple studies that show “worse perceived health status than the general population” and heavy chronic disease burdens that seem to develop over time as “adverse living conditions, including precarious working conditions...[begin to] negatively impact health [of migrants]” (Jackson et al., 2018; Rellstab et al., 2016).

Unlike in Switzerland, more migrants than American citizens rated their health at the highest level with a difference of about 2.4% (see Fig. 6). About 1.2% more citizens than migrants rated their health as “Fair”, and about 1.5% more citizens than migrants rated their health as “Bad” or “Very bad” (see Fig. 6). The small magnitude of difference between the two groups in these results suggests that self-reported citizen health is marginally worse than self-reported migrant health, which is in line with the “healthy immigrant paradox” (Hall & Cuellar, 2016).

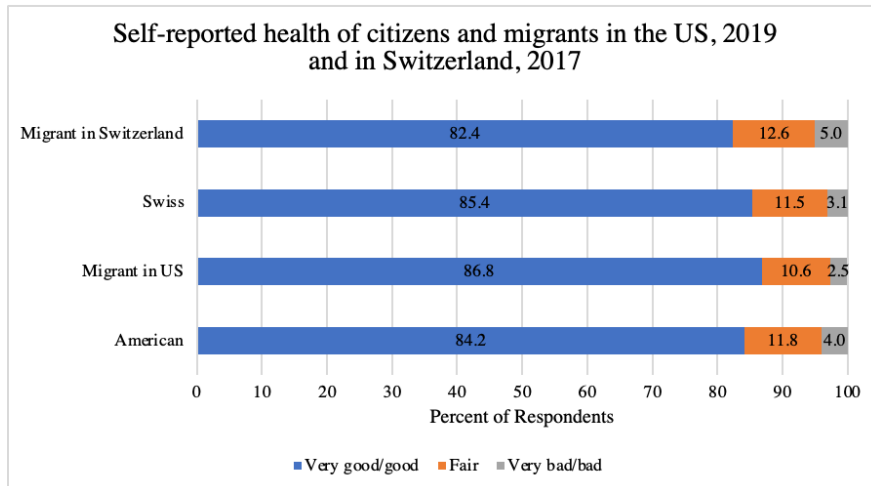


Figure 6. Proportion of citizens and migrants, respectively, who rated their health as “Very good” or “Good”, “Fair”, and “Very bad” or “Bad” in the US (2019) and Switzerland (2017). “Very good/good” is shown in blue, “Fair” in orange, and “Very bad/bad” in grey. US data sourced from NHIS 2019. Switzerland data sourced from SHS 2017.

In Switzerland, migrants had worse health outcomes for all NCDs examined except hypertension and cancer (see Fig. 7a). However, the only significant difference where migrants were more affected than citizens was for depression ($p < 0.05$, see Fig. 7a). The difference in hypertension prevalence was statistically significant and was worse for Swiss citizens than for migrants ($p < 0.05$), while the difference in cancer reporting was not significant ($p > 0.05$, see Fig. 7a). The limited literature about migrant health in Switzerland showed similar results (Rellstab et al., 2016). A 2016 study stating that migrants generally have “a higher prevalence of chronic illness than the Swiss” (Rellstab et al., 2016). This paper suggested these health disparities vary in severity based on country of origin with some migrant sub-groups who pose an exception to this pattern (Rellstab et al., 2016).

Few studies examining chronic diseases among migrants as compared to Swiss nationals exist, but there are several that focus on mental health outcomes, which is a major chronic disease, in migrants compared to the general Swiss population (Moreau-Gruet & Luyet, 2011). A 2011 study showed that migrants composed a disproportionately large percent of psychiatric

hospital admissions (Moreau-Gruet & Luyet, 2011). A 2005 study suggested that although migrants are less likely to abuse substances than Swiss citizens, they are three or four times more likely to suffer from neurotic disorders linked to stress and anxiety (Lay et al., 2005). This literature aligns with the evaluation of SHS 2017 data.

In the US, migrants consistently had better health outcomes based on prevalence for all NCDs analyzed (see Fig. 7b). However, these superior migrant health outcomes should be examined critically, as they correspond to the “healthy immigrant paradox” explored in numerous migrant health studies (Hall & Cuellar, 2016). Multiple studies have asserted that “data on chronic diseases [among migrants] are generally based on clinic data or self-reported diagnoses and must be considered underreports” due to infrequent healthcare utilization among migrants and thus, fewer opportunities for diagnosis (Arcury & Quandt, 2007; Mines et al., 2001). Other studies mirror the same healthy immigrant paradox results but observe greater prevalence of chronic disease among migrant groups as they spend more years in the US (Payton et al., 2021). A 2001 survey evaluation of migrant health reported a heavy burden of chronic disease, such as a “crushing mental health burden,” among this population but did not survey the general American population (Holmes, 2012; Mines et al., 2001). Like this study, many others did not attempt to compare migrant health to American health despite observing extremely high chronic disease burden among migrants, making it more difficult to analyze the efficacy of health policy for migrants in the US (Holmes, 2012).

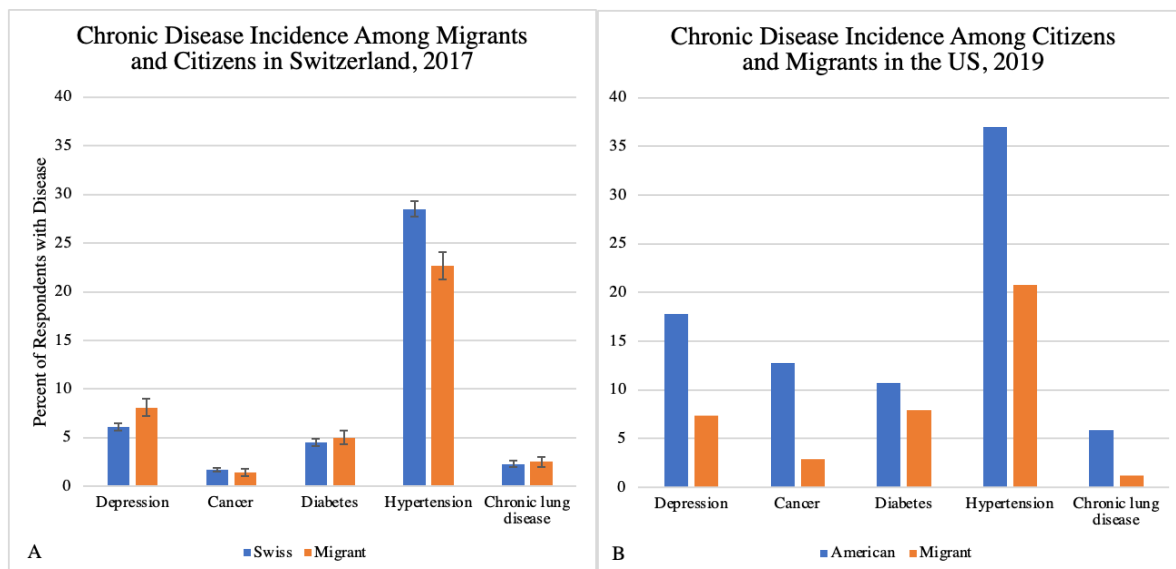


Figure 7a. Proportion of migrants (orange) and citizens (blue), respectively, who reported a NCD, specifically depression, cancer, diabetes, hypertension, and chronic lung disease, in Switzerland, 2017. Data sourced from SHS 2017. **Figure 7b.** Proportion of migrants (orange) and citizens (blue), respectively, who reported a NCD, specifically depression, cancer, diabetes, hypertension, and chronic lung disease, in the US, 2019. Data sourced from NHIS 2019.

In both countries, few studies compared migrant to citizen health. More of the NCD outcomes were worse for migrants than citizens based on the SHS 2017, indicating that Switzerland still has work to do in improving the quality of the care that is accessible to migrants. In the US, the NHIS 2019 suggested that migrant health was better than citizen health, which would indicate accessibility of high-quality care to migrants, but the well-established healthy immigrant paradox and further research into this phenomenon gives reason to believe this finding may be unreliable in showing the full picture of migrant health in the US. Additionally, these results contradict the more lacking access to care resulting from US health policy than in Switzerland. This potential bias makes it difficult to analyze the US migrant health policy based on these health outcomes and to compare the efficacy of these policies to those of Switzerland.

When interpreting this data, it is important to note that neither NHIS nor SHS cover the undocumented population in their respective country, which means that these health outcome findings cannot be generalized to undocumented migrants, only those who are regularized or have entered the country with legal permission. Other limitations include the self-reported nature of these measures, all of which may be subject to recall bias or skewing of reporting out of fear or shame. The lack of standard deviations provided for the NHIS 2019 data also makes it impossible to determine whether the disparities between migrants and citizens are statistically significant. However, the strength of these surveys—the large, representative sample sizes—helps to offset these biases and protect the validity of the results.

Patient perceptions of quality of care in the US

Two detailed ethnographies on migrant farmworker health in the US stated that migrants often return from health centers, saying “los medicos no saben nada,” which means “the doctors don’t know anything” (Holmes, 2006, 2012). Other patients say, “they didn’t do anything that helped me” (Holmes, 2006, 2012). These accounts of disappointment and perception of insufficient care occur for both structural reasons and care provider attitudes towards the patients, also known as “the clinical gaze” (Holmes, 2006, 2012).

Many of these migrants attend their appointments without a proper translator, so they must try to communicate in English or Spanish, if they are lucky, instead of their indigenous maternal language (Holmes, 2006, 2012). Many of these indigenous Latinx people did not go to school and do not speak or read Spanish, which further complicates attempts to communicate between doctor and patient (Holmes, 2006, 2012). If the migrant’s child is present, a doctor without a translator will often ask the child to translate from English to the patient’s native

language, which puts undue burden on a child who may not have the proper vocabulary to convey medical ailments and treatment options (Holmes, 2006, 2012). These language barriers and lack of available translators create many opportunities for miscommunication, misdiagnosis, and mistreatment that lead to even greater dissatisfaction when their symptoms do not subside (Holmes, 2006, 2012; Payton et al., 2021).

Although HRSA provides funding to many clinics across the country to provide migrant care, many of these clinics are extremely underfunded and require the staff to constantly apply for grants to provide adequate care and access to necessary treatments for their predominantly uninsured patient population (Holmes, 2006, 2012). Since they are underfunded, the few doctors and nurses must also perform services they were not trained for (Holmes, 2006, 2012). This additional work stretches the limited number of care providers thin and “overworks” them, which negatively impacts how much attention patients receive and may negatively affect the quality of care, something that patients can easily observe (Holmes, 2006, 2012).

Another obstacle for migrant farmworkers from receiving high quality care are the issues stemming from their frequent movement to different parts of the US (Holmes, 2006, 2012). This migration pattern leaves “patchy” medical records in various clinics, decreasing the ease and continuity of their care and negatively impacting health outcomes (Holmes, 2006, 2012; Mines et al., 2001). As a result, patients feel less satisfied with the care they receive (Holmes, 2006, 2012; Mines et al., 2001).

Many medical organizations have integrated cultural competency into their trainings for providers to “broaden the clinical gaze in order to avoid ethnocentric assumptions and ineffective interventions,” but these trainings have not prevented the occurrence of these providers deficiencies (Holmes, 2006, 2012; Payton et al., 2021). Since physicians are so rushed due to

their large workload, they are unable to “devote [time] to ‘the social history’” of the patient, creating the opportunity for many cultural misunderstandings (Holmes, 2006, 2012). Certain cultural practices, such as “religious shame at sickness being related to personal sin or moral failing” or folk disease like “susto”, often frustrate and complicate physician attempts to treat biomedical ailments (Holmes, 2006, 2012; Payton et al., 2021). Patients do not always follow their Western doctor’s orders, which results in worse health outcomes and lower patient satisfaction (Holmes, 2006, 2012). Many Latinx migrant farmworkers tend to minimize their pain: “Dr. Nelson, the CMO of the migrant clinic in Washington State stated that in response to her question, ‘are you okay?’, many of her migrant patients often reply, ‘well, it all hurts, but that’s just the way it is’” (Holmes, 2006, 2012). Sometimes, the clinicians’ biases cause them to misinterpret these practices and “subtly blam[e]” their patients after making “ethnocentric assumptions” about their traditional beliefs and the issues they face, such as substance abuse (Holmes, 2006, 2012). This subtle discrimination does not go unnoticed by patients and affects both the actual quality of care they receive, their perception of it, and their willingness to seek care in the future: “from assumptions about him bending his knees ‘incorrectly’ to presumptions of ethnic bodily predispositions,” physicians’ biases seeped into their treatment of one of the migrant farmworkers observed, leading to worse quality of care perceived by this migrant (Arcury & Quandt, 2007; Holmes, 2006, 2012; Payton et al., 2021; Yang & Hwang, 2016).

Patient perceptions of quality of care in Switzerland

When discussing quality of care, Fatima gave an overwhelmingly positive review of Swiss healthcare, saying “la qualité de service médical est bonne” (the quality of medical services is good). After being asked what difficulties she faced in navigating the healthcare

system in Switzerland, she responded, “pas de difficultés” (no difficulties). However, she did mention that during labor for her third child, the doctors made a medical error that caused her “beaucoup de douleur et souffrance” (a lot of pain and suffering).

She reported rarely experiencing discrimination when interacting with healthcare providers, describing them as “gentils” (kind). In the few times doctors did discriminate against her, she felt that their change in behavior occurred after she told them that she did not have health insurance.

El-Koutit described the idealistic view many migrants have about Switzerland, especially when initially arriving in the country, and this optimistic perspective also pertained to healthcare and the quality of care they would receive. Although these expectations may not always live up to reality, El-Koutit said, “In general, many migrants are satisfied with the healthcare they receive here. Most migrants feel that the doctors here are well-trained.”

According to El-Koutit, “the biggest complications occur when the migrant doesn’t understand and speak French, especially because translators are often too expensive for migrants to afford.” In these situations, children, if present, are asked to translate between the doctor and their parents, which is a responsibility not fit for a child for ethical and practical reasons (B. El-Koutit, personal communication, April 14, 2022).

Misunderstandings are common among patients who cannot speak French (B. El-Koutit, personal communication, April 14, 2022). For example, El-Koutit aided an undocumented migrant who was pregnant and had gone to the hospital for pre-natal care (B. El-Koutit, personal communication, April 14, 2022). The social worker at the hospital told the woman to give her child up for adoption because she did not understand the migrant’s situation, and the woman was not able to explain or push back against this recommendation due to her lack of French

proficiency (B. El-Koutit, personal communication, April 14, 2022). As evidenced by this situation, patients are more likely to be satisfied with their quality of care when they “can defend themselves in French” (B. El-Koutit, personal communication, April 14, 2022).

Diverging from the overall positive view that Fatima and El-Koutit of migrant healthcare in Switzerland, a 2018 study on the country’s undocumented migrants asserted that “the ability to correctly diagnose mental health problems in migrants is frequently hampered by social, cultural and structural factors influencing patient-doctor interactions” (Jackson et al., 2018). Cultural misunderstandings in patient-doctor interactions often results in “difficulties trusting doctors in Switzerland because of the latters’ tendency to point out their immigration background as a potential cause of their illness” (Frahsa et al., 2020). This dismissal of patient concerns and treatment “with less attention” lends itself to patient frustration and dissatisfaction with the care they received (Frahsa et al., 2020).

El-Koutit highlighted a specific example of this cultural misalignment in physician treatment of their migrant patients:

“I once helped a migrant woman who was raped in the war in her country, and her husband took her to the hospital. She was seeking mental health and trauma treatment, but in her culture, she could not discuss the violation of her body in front of her husband. When the doctor came in, she was unable to speak with her because her husband was not asked to leave. Doctors should be taught about important factors in culture that necessitate specific steps to caring for people from different groups, such as separating women from their husbands, so she can speak freely.”

El-Koutit called the hospital to request another appointment, during which the doctor would ask the husband to step out of the room (B. El-Koutit, personal communication, April 14, 2022). This

lack of cultural knowledge among physicians causes undue difficulty in migrants' lives, and in situations like this one, it may result in inability to receive vital care and perpetuation of the health issue, leaving migrants dissatisfied with the services available to them (B. El-Koutit, personal communication, April 14, 2022).

Like in the US, language barriers also constitute a significant part of the patient perception of care: "Language problems cause difficulties in communicating with health care providers, accessing and understanding health information, and eventually affect health status" (Tzogiou et al., 2021). One in three migrants who were culturally different from Swiss people "were at least sometimes not able to have doctors understand their health concerns," while one in three of this same migrant group "at least sometimes failed to understand the information provided by the doctor" (Tzogiou et al., 2021).

The US and Switzerland both experience similar cultural and language barriers to high quality migrant care. Although migrants and their advocates like El-Koutit call for more effective cultural competency and anti-bias trainings and more widespread affordable interpreter services, firsthand reports of migrant perception of care show that Switzerland's migrants are more often satisfied with the care they receive than American migrants. This finding indicates that the US must put greater resources and attention towards ameliorating their quality of care for migrants, but ultimately, both countries still have room for improvement.

Conclusion

In treating groups as vulnerable as migrants, it is important to carefully analyze the barriers they face, both structural and interpersonal, with the current health policies in place to take steps towards building a more efficient healthcare system with greater access to and quality of care. The US and Switzerland are both considered to be high-income countries with strong

healthcare systems, and both countries have a high proportion of migrants in their population ("Health," 2020; Ross, 2022).

This comparative analysis of the efficacy of each country's migrant health policies and services separately assessed access to and quality of care, using the following elements: inclusivity of insurance policy, utilization patterns, NCD outcomes, and patient perceptions of care. The first two measures were assessed as indicators of access to care, while the latter two were assessed as indicators of quality of care although all four are very closely intertwined.

In the US, the very limited insurance assistance and public insurance programs are only available to documented migrants who have resided in the US for at least five years. As a result, migrants are disproportionately more uninsured in the US. In Switzerland, migrants are expected to enroll in the basic health insurance benefits package before the three-month mark in their residency in Switzerland, regardless of documentation status, and all migrants are eligible for public assistance in paying for insurance. Although both countries still have structural and behavioral barriers to enrolling in insurance, such as cost, language barriers, misinformation, cultural misunderstandings, and the digital divide, Switzerland's insurance and related health policies seems much more conducive to higher insured rates among their migrant population, regardless of documentation. However, since Switzerland assumes a 100% insured rate and does not measure their true one, it cannot be concluded that these Swiss policies promote better insured rates and better access to care than those of the US.

These higher insured rates in Switzerland lead to greater primary care utilization among migrants with about similar levels of care utilization between the migrant and citizen populations. However, there are still reports of greater propensity to delay care or use the emergency room, particularly for undocumented migrants. On the other hand, migrants in the US

had much higher emergency and urgent care utilization paired with overall lower healthcare utilization. Obstacles to greater primary care use and overall utilization of care are the same for both countries—cost, work hours, misinformation, fear, and cultural norms, but the severity of these challenges varies between countries. These utilization patterns indicate greater healthcare access in Switzerland than in the US.

Contrary to the previous two factors, results from the health outcomes measure seemed to suggest greater quality of care for migrants in the US than in Switzerland. Self-reported migrant health was worse than that of citizens in Switzerland but better than that of citizens in the US. Additionally, migrants in Switzerland had higher prevalence of the majority of NCDs observed although these differences were generally not statistically significant, while the migrants in the US had lower prevalence of all NCDs observed. It cannot be concluded that the US has better quality of care than Switzerland based on its policies because there is significant literature on the “healthy immigrant paradox” and the disproportionate worsening of migrant health with more years spent in the US, which suggests the US health outcomes results may be biased.

Patient perception of care provided a clearer picture of quality of care, as migrants directly stated their opinions on the care they received in interviews and ethnographies. Migrants in Switzerland and the US discussed similar challenges like language barriers, cultural misalignment in diagnosis and treatment, and rushed or inattentive physicians, but those in the US felt very dissatisfied with care. Migrants in Switzerland had a far more positive view of care services available to them with very infrequent complaints. As a result, it can be deduced that quality of care is higher in Switzerland than in the US.

Based on these analyses of the health policies and services provided to migrants in the US and Switzerland, Switzerland seems to have better policies and practices in place to protect

the health of their migrant population. Switzerland seemed to have more inclusive insurance policies, but the efficacy of these policies in insuring migrants cannot be confirmed due to lack of insured rate data in Switzerland. Switzerland was more effective in preventing emergency care overutilization and underutilization of care and had more positive migrant perceptions of and experiences with care, while the US only had better NCD prevalence and self-reported overall health outcomes among migrants, a result that does not represent a holistic view of reality. Although Switzerland had better outcomes in this analysis, these results still show room for improvement in both countries, as there are still significant structural and interpersonal barriers that prevent truly equitable access to high quality care for all migrants in these two countries.

Countries may look to Switzerland's healthcare policies and practices to build a foundation for health equity among their migrant population, but more related research is still necessary. Future research should conduct isolated data-driven studies analyzing the effects of individual healthcare policies to identify exact policy recommendations for improved migrant health.

Appendix

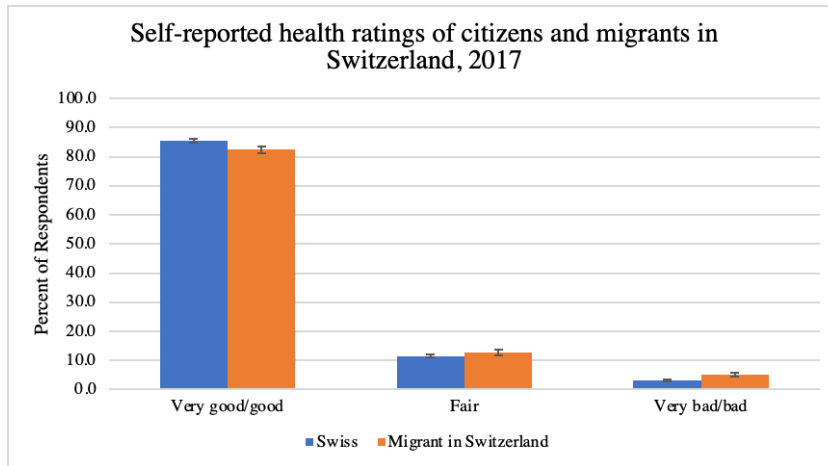


Figure A1. Proportion of citizens (blue) and migrants (orange), respectively, who rated their health as “Very good” or “Good”, “Fair”, and “Very bad” or “Bad” in Switzerland, 2017. Data sourced from SHS 2017.

Abbreviation List

Affordable Care Act (ACA)

Association pour la Promotion des Droits Humains (APDH)

Consultation ambulatoire mobile de soins communautaires (CAMSCO)

Children’s Health Insurance Program (CHIP)

Health Resources and Services Administration (HRSA)

National Health Interview Survey (NHIS)

Non-communicable disease (NCD)

Swiss Health Survey (SHS)

References

- About Chronic Diseases. (2022). In. National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP): US Department of Health and Human Services Centers for Disease Control and Prevention.
- Arcury, T. A., & Quandt, S. A. (2007). Delivery of Health Services to Migrant and Seasonal Farmworkers. *Annual Review of Public Health*, 28(1), 345-363.
<https://doi.org/10.1146/annurev.publhealth.27.021405.102106>
- Bilger, V., Hollomey, C., Wyssmüller, C., & Efiionayi-Mäder, D. (2011). Health Care for Undocumented Migrants in Switzerland. In *Policies - People - Practices*. University of Neuchâtel: Swiss Confederation Federal Office of Public Health.
- Budiman, A. (2020). Key findings about U.S. immigrants. In. Pew Research Center.
- Castañeda, H., Holmes, S. M., Madrigal, D. S., Young, M.-E. D., Beyeler, N., & Quesada, J. (2015). Immigration as a Social Determinant of Health. *Annual Review of Public Health*, 36(1), 375-392. <https://doi.org/10.1146/annurev-publhealth-032013-182419>
- Country Profiles: Switzerland. In. Migrants and Refugees: Vatican Dicastery for Promoting Integral Human Development.
- Diaz, E., Ortiz-Barreda, G., Ben-Shlomo, Y., Holdsworth, M., Salami, B., Rammohan, A., . . . Krafft, T. (2017). Interventions to improve immigrant health. A scoping review. *European Journal of Public Health*, 27(3), 433-439.
<https://doi.org/10.1093/eurpub/ckx001>
- Federally Qualified Health Centers. (2018). In *Eligibility*: US Department of Health and Human Services Health Resources and Services Administration.

- Frahsa, A., Farquet, R., Bayram, T., De Araujo, L., Meyer, S., Sakarya, S., . . . Abel, T. (2020). Experiences With Health Care Services in Switzerland Among Immigrant Women With Chronic Illnesses [Brief Research Report]. *Frontiers in Public Health*, 8.
- Gishu, T., Weldetsadik, A. Y., & Tekleab, A. M. (2019). Patients' perception of quality of nursing care; a tertiary center experience from Ethiopia. *BMC Nursing*, 18(1), 37. <https://doi.org/10.1186/s12912-019-0361-z>
- Hall, E., & Cuellar, N. G. (2016). Immigrant Health in the United States: A Trajectory Toward Change. *J Transcult Nurs*, 27(6), 611-626. <https://doi.org/10.1177/1043659616672534>
- Health. (2020). In: Migration Integration Policy Index.
- Health at a Glance 2021: OECD Indicators. (2021). In *Highlights for Switzerland*: Organisation for Economic Co-operation and Development.
- Health Coverage of Immigrants. (2022). In: Kaiser Family Foundation.
- Health equity. (2021). In: Swiss Confederation Federal Office of Public Health.
- Holmes, S. M. (2006). An ethnographic study of the social context of migrant health in the United States. *PLoS medicine*, 3(10), e448-e448. <https://doi.org/10.1371/journal.pmed.0030448>
- Holmes, S. M. (2012). The clinical gaze in the practice of migrant health: Mexican migrants in the United States. *Social Science & Medicine*, 74(6), 873-881. <https://doi.org/https://doi.org/10.1016/j.socscimed.2011.06.067>
- How U.S. Health Insurance Works. In: Stanford University Vaden Health Services.
- Immigration to Switzerland continues to rise. (2019). In. Swissinfo.ch: Swiss Broadcasting Corporation.
- Islas, P. (2016). The uncertainty of life as an illegal worker. In: Swiss Broadcasting Corporation.

- Jackson, Y., Paignon, A., Wolff, H., & Delicado, N. (2018). Health of undocumented migrants in primary care in Switzerland. *PLOS ONE*, *13*(7), e0201313.
<https://doi.org/10.1371/journal.pone.0201313>
- Kaya, B. (2007). "Migration and Health": a basic document on the issues. In D. Efiionayi-Mäder (Ed.), *Developing documents and instruments for the "migration" dimension in health promotion and prevention*. Neuchâtel: Swiss Forum for Migration and Population Studies.
- Kearney, A., Hamel, L., Stokes, M., & Brodie, M. (2021). Americans' Challenges with Health Care Costs. In: Kaiser Family Foundation.
- Keisler-Starky, K., & Bunch, L. (2021). Health Insurance Coverage in the United States: 2020. In: United States Census Bureau.
- Kline, N. (2022). Health and immigration systems as an ethnographic field: Methodological lessons from examining immigration enforcement and health in the US. *Social Science & Medicine*, *300*, 114498. <https://doi.org/https://doi.org/10.1016/j.socscimed.2021.114498>
- Ku, L., & Jewers, M. (2013). Health Care for Immigrant Families. In *Current Policies and Issues*: Migration Policy Institute.
- La santé à Genève. (2017). In *Guide pratique pour personnes migrantes*: République et canton de Genève.
- La Suisse doit mieux protéger ses sans-papiers. (2020). In. EPER: HEKS.
- Lay, B., Lauber, C., & Rössler, W. (2005). Are immigrants at a disadvantage in psychiatric inpatient care? *Acta Psychiatr Scand*, *111*(5), 358-366. <https://doi.org/10.1111/j.1600-0447.2004.00509.x>

- Lehmann, P., Mamboury, C., & Minder, C. E. (1990). Health and social inequities in Switzerland. *Soc Sci Med*, 31(3), 369-386. [https://doi.org/10.1016/0277-9536\(90\)90284-y](https://doi.org/10.1016/0277-9536(90)90284-y)
- Macinko, J., Dourado, I., & Guanais, F. C. (2011). Chronic Diseases, Primary Care and Health Systems Performance. In *Diagnostics, Tools, and Interventions: Inter-American Development Bank*.
- Mattig, T., & Chastonay, P. (2017). Switzerland's National Non-communicable Diseases Strategy. In (1 ed., Vol. 2, pp. 1002). *Annals of Chronic Diseases: Annals of Chronic Diseases*.
- Mines, R., Mullenax, N., & Saca, L. (2001). The binational farmworker health survey. *California Institute for Rural Studies*.
- Moreau-Gruet, F., & Luyet, S. (2011). Population migrante et santé: Analyse de la statistique médicale des hôpitaux et recherche de littérature. In. Neuchâtel: Swiss Health Observatory.
- Ndugga, N., & Artiga, S. (2021). Disparities in Health and Health Care: 5 Key Questions and Answers. In: Kaiser Family Foundation.
- Noncommunicable diseases. (2021). In *Key Facts: World Health Organization*.
- Okafor, M. C., Carter-Pokras, O. D., & Zhan, M. (2014). Greater dietary acculturation (dietary change) is associated with poorer current self-rated health among African immigrant adults. *J Nutr Educ Behav*, 46(4), 226-235. <https://doi.org/10.1016/j.jneb.2013.11.015>
- Overuse of Emergency Departments Among Insured Californians. (2006). In: California HealthCare Foundation.

- Oza-Frank, R., & Cunningham, S. A. (2010). The weight of US residence among immigrants: a systematic review. *Obes Rev*, *11*(4), 271-280. <https://doi.org/10.1111/j.1467-789X.2009.00610.x>
- Oza-Frank, R., & Narayan, K. M. (2010). Overweight and diabetes prevalence among US immigrants. *Am J Public Health*, *100*(4), 661-668. <https://doi.org/10.2105/ajph.2008.149492>
- Pandey, S. K., Cantor, J. C., & Lloyd, K. (2014). Immigrant Health Care Access and the Affordable Care Act [<https://doi.org/10.1111/puar.12280>]. *Public Administration Review*, *74*(6), 749-759. <https://doi.org/https://doi.org/10.1111/puar.12280>
- Payton, C., Kimball, S., Ahrenholz, N. C., & Wieland, M. L. (2021). Preventive Care and Management of Chronic Diseases in Immigrant Adults. *Prim Care*, *48*(1), 83-97. <https://doi.org/10.1016/j.pop.2020.09.006>
- Population by migration status. (2020). In. Federal Statistical Office: Confédération suisse.
- Pourat, N., Wallace, S. P., Hadler, M. W., & Ponce, N. (2014). Assessing health care services used by California's undocumented immigrant population in 2010. *Health Aff (Millwood)*, *33*(5), 840-847. <https://doi.org/10.1377/hlthaff.2013.0615>
- Providing medical care to the hidden uninsured. (2004). In: Médecins Sans Frontières.
- Rasouli, H. R., Esfahani, A. A., Nobakht, M., Eskandari, M., Mahmoodi, S., Goodarzi, H., & Abbasi Farajzadeh, M. (2019). Outcomes of Crowding in Emergency Departments; a Systematic Review. *Archives of academic emergency medicine*, *7*(1), e52-e52.
- Rellstab, S., Pecoraro, M., Holly, A., Wanner, P., Renard, & Karine. (2016). The Migrant Health Gap and the Role of Labour Market Status: Evidence from Switzerland. In. Neuchâtel: University of Neuchâtel, Institute of Economic Research (IRENE).

- Riosmena, F., Wong, R., & Palloni, A. (2013). Migration selection, protection, and acculturation in health: a binational perspective on older adults. *Demography*, *50*(3), 1039-1064.
<https://doi.org/10.1007/s13524-012-0178-9>
- Ro, A., & Bostean, G. (2015). Duration of U.S. stay and body mass index among Latino and Asian immigrants: A test of theoretical pathways. *Social Science & Medicine*, *144*, 39-47.
<https://doi.org/https://doi.org/10.1016/j.socscimed.2015.09.001>
- Ro, A., & Van Hook, J. (2021). Comparing immigration status and health patterns between Latinos and Asians: Evidence from the Survey of Income and Program Participation. *PLOS ONE*, *16*(2), e0246239. <https://doi.org/10.1371/journal.pone.0246239>
- Ross, J. (2022). Mapped: Immigration by Country, as a Percentage of the Population. In: Visual Capitalist.
- Second monitoring on the migrant population's state of health in Switzerland (GMM II). In *Management Summary: Le bureau d'études de politique du travail et de politique sociale BASS*.
- Institute of Medicine (US) Committee on Monitoring Access to Personal Health Care Services. (1993). *Access to Health Care in America*. National Academies Press (US).
- Singh, G. K., & Miller, B. A. (2004). Health, Life Expectancy, and Mortality Patterns Among Immigrant Populations in the United States. *Canadian Journal of Public Health*, *95*(3), I14-I21. <https://doi.org/10.1007/BF03403660>
- Singh, G. K., Siahpush, M., Hiatt, R. A., & Timsina, L. R. (2011). Dramatic Increases in Obesity and Overweight Prevalence and Body Mass Index Among Ethnic-Immigrant and Social Class Groups in the United States, 1976–2008. *Journal of Community Health*, *36*(1), 94-110. <https://doi.org/10.1007/s10900-010-9287-9>

- Study: Many Immigrants Perceive Racial Discrimination at Work, in Health Care. (2021). In: University of California, Merced: University of California, Merced.
- Tikkanen, R., & Abrams, M. (2020). U.S. Health Care from a Global Perspective, 2019: Higher Spending, Worse Outcomes? In: The Commonwealth Fund.
- Tikkanen, R., Osborn, R., Mossialos, E., Djordjevic, A., & Wharton, G. (2020a). International Healthcare System Profiles: Switzerland. In: The Commonwealth Fund.
- Tikkanen, R., Osborn, R., Mossialos, E., Djordjevic, A., & Wharton, G. A. (2020b). International Healthcare System Profiles: United States. In: The Commonwealth Fund: The Commonwealth Fund.
- Tolbert, J., Diaz, M., Hall, C., & Mengistu, S. (2019). State Actions to Improve the Affordability of Health Insurance in the Individual Market. In: Kaiser Family Foundation.
- Tzogiou, C., Boes, S., & Brunner, B. (2021). What explains the inequalities in health care utilization between immigrants and non-migrants in Switzerland? *BMC Public Health*, 21(1), 530. <https://doi.org/10.1186/s12889-021-10393-9>
- Velez, D., Palomo-Zerfas, A., Nunez-Alvarez, A., Ayala, G. X., & Finlayson, T. L. (2017). Facilitators and Barriers to Dental Care Among Mexican Migrant Women and Their Families in North San Diego County. *Journal of Immigrant and Minority Health*, 19(5), 1216-1226. <https://doi.org/10.1007/s10903-016-0467-2>
- Villarejo, D. (2003). The health of US hired farm workers. *Annual Review of Public Health*, 24(1), 175-193.
- Volken, T., & Rüesch, P. (2014). Health Status Inequality among Immigrants in Switzerland. In (Vol. 4, pp. 459-469). Open Journal of Preventive Medicine.

What immigrants and refugees need to know about the Affordable Care Act (ACA)? In.

Substance Abuse and Mental Health Services Administration: Substance Abuse and
Mental Health Services Administration.

Who is a migrant? (2019). In. International Organization for Migration: International
Organization for Migration.

Wilson, F. A., Zallman, L., Pagán, J. A., Ortega, A. N., Wang, Y., Tatar, M., & Stimpson, J. P.
(2020). Comparison of Use of Health Care Services and Spending for Unauthorized
Immigrants vs Authorized Immigrants or US Citizens Using a Machine Learning Model.
JAMA Network Open, 3(12), e2029230-e2029230.
<https://doi.org/10.1001/jamanetworkopen.2020.29230>

Wyssmüller, C., & Efiionayi-Mäder, D. (2011). Undocumented migrants: their needs and
strategies for accessing health care in Switzerland. In *Country report on people &
practices*: Swiss Confederation Federal Office of Public Health.

Yang, P. Q., & Hwang, S. H. (2016). Explaining Immigrant Health Service Utilization: A
Theoretical Framework. *SAGE Open*, 6(2), 2158244016648137.
<https://doi.org/10.1177/2158244016648137>