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The International Health Labor Migration to Switzerland: Key Challenges for Its Governance

Ibrahima Amadou Dia [1]

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Abstract
The objective of this article is to analyze the governance of migration of health professionals in Switzerland. Owing to a lack of health workers, the growing needs of healthcare, and the limited number of recent graduates, the Swiss health institutions are dependent upon international healthcare professionals. After an analysis of the need for healthcare professionals, this article examines the laws regulating the migration flows, before considering the challenges related to the governance of international migration and recruitment of health professionals in Switzerland. This article confirms Switzerland's longstanding health workforce shortage, its chronic dependence upon the health professionals from EU neighboring countries, and its difficulty to achieve self-sufficiency against the backdrop of increasing health and demographic challenges, a need to maintain its welfare state, and to strengthen its international competitiveness by attracting talents, and the threat caused by rising restrictionist and anti-migrant political rhetoric, thereby resulting in difficult compromises regarding its migration policy outcomes.

Keywords International migration · Healthcare professionals · Shortage · Migration policy, laws · Governance · Switzerland

Introduction

The international migration of health professionals is a politically sensitive issue due to the adverse effects of the global shortage of healthcare workers. According to the World Health Organization (WHO 2006), the global shortage of healthcare workers amounted to 4.3 million healthcare professionals, of whom the numbers of medical doctors, nurses, and midwives amounted to 2.4 million. The health systems in the world's economically powerless countries are experiencing poor performance in healthcare delivery, owing to factors such as the collapse of healthcare institutions, low wages and bad working

✉ Ibrahima Amadou Dia
ibdia@hotmail.com

[1] University of Geneva, Geneva, Switzerland

conditions, inadequate funding, mismanagement, and the negative impacts of the migration of health professionals. Poverty, economic crisis, and hard living conditions affect household spending on healthcare (WHO 2006, pp. 143–144). The 2006 WHO report points out that the shortfall in the health workforce is expected to continue for the next 20 years due to the rising demand for healthcare and the aging of the working population and the population as a whole. This has led to fierce competition among the Organization for Economic Co-operation and Development (OECD) countries for the recruitment of health professionals (OECD 2007). Therefore, one of the fundamental problems for the sustainability of the health systems relates to the availability and sufficiency of qualified health personnel.

The complexity of the international migration of health professionals is linked to the fact that it involves different actors and interests. Most studies on the effects of international migration of health professionals focus on developing countries, the importance of private recruitment agencies, the migration of medical students and the question of return, and the causes of migration and its consequences for public health systems. Among the significant shortcomings of most of these studies is a lack of reliable data (Kangasniemi et al. 2004) and conceptual and methodological problems (Martineau et al. 2002).

This paper analyzes the patterns, dynamics, and challenges of the international migration and recruitment of health professionals in Switzerland. It posits that one of the major challenges of human resource planning for healthcare in this country is to reduce the dependence upon international healthcare workers by achieving self-sufficiency in its labor supply. Switzerland is an interesting case study because despite being largely advantaged in the international health labor market, its health system is confronting to a longstanding shortage of skilled health staff along with difficulty to achieve self-sufficiency and the increasing restrictionist and anti-migrant political rhetoric—as evidenced by the 2014 popular vote against massive immigration. It focuses on the regulation of migration flows and the implications of the recruitment of foreign health professionals' trainees for Swiss migration policy and health policy, and the challenges it poses to the Swiss health system. The outline of the article is as follows. First, it analyzes the extent of migration flows and the need for healthcare professionals in Switzerland. Second, it examines the laws relating to the entry of foreign-born professionals in Switzerland, international recruitment of health professionals, and recognition of foreign professionals' qualifications and credentials. Third, it critically examines the policies aimed at achieving self-sufficiency in human resources for healthcare and better governance of the international migration and recruitment of healthcare professionals.

The study examines the issue of international migration of health professionals to Switzerland by focusing on the role of Swiss migration policies on the international recruitment of healthcare workers. Such issue offers an avenue to deepen our understanding of the swift from a protectionist to a more liberal Swiss migration policy (Riaño et al. 2017). The international migration of health professionals should be placed in a broader context of skilled international migration against the background of a "growing appetite for skilled workers" (Czaika 2018, p. 1) to address the challenges of an increasingly aging of population, skilled workforce shortages, and the need to maintain international economic, scientific, and technological competitiveness (Cerna 2016). This has resulted in a "global diffusion of high-skilled migration policies" (Czaika 2018, p. 2).

The Swiss migration system is preoccupied with meeting the demands of economic forces and preserving the Swiss identity by addressing large and heterogeneous migrant flows or "over-foreignization" (Arlettaz and Arlettaz 2004, cited by Afonso 2005, p. 4) for

non-EU migrants while ensuring free mobility for EU citizens as a result of free migration agreements along with those from European Free Trade Association (EFTA) countries. Swiss migration is currently underpinned by "dual foreigner's rights." Following the free movement agreement between the EU and Switzerland, the laws relating to the admission and settlement of foreigners apply only to non-EU citizens (individuals originated from the so-called third countries). Bilateral agreements between Switzerland and the EU allows EU citizens to benefit from the same rights to settle and to take up a job as Swiss nationals, except voting rights (Vaitkeviciute 2017, cited by Riaño et al. 2017, p. 6).

Notwithstanding a large intake of migrants, this country does not see itself as a country of immigration unlike Anglosaxon countries such as the UK, the USA, Canada, and Australia that have been more opened to "(...) permanent settlement of migrants and their naturalization as citizens." (Riaño et al. 2017, p.6). The foreign-born population accounts for around 25% of the total resident population (Federal Statistical Office (FSO) 2016). Switzerland ranks second among OECD countries regarding the share of the foreign-born population in the total number of residents. However, due to its longstanding option for the guest-worker scheme, this country (along with Austria and Germany) has long deterred family reunification and the permanent settlement of migrant workers (Riaño et al. 2017, p. 6).

Swiss migration policy is moving from a "restrictive to a more liberal stance" (Riaño et al. 2017, p. 6). Moreover, the amendments to the Foreign National Acts (FNA) and to the Regulation on Admission, Residence, and Employment concerning non-EU nationals constitute significant steps towards facilitating the transition from international student migration to (high) skilled migration in Switzerland for non-EU students graduated from Swiss universities (Riaño et al. 2017, p. 6). Nevertheless, despite these amendments, students from the global South (Africa and Latin America) that have graduated from the Swiss universities face sets of hindrances to access to the Swiss labor market after completing their studies. There is resentment among non-EU citizens about the discriminatory and xenophobic underpinning of the Swiss migration policy (Ionescu et al. 2009; Mendy 2014; Bolzman and Guissé 2017). Against the background of a shortage of skilled workers and attractive policies toward highly skilled migrants in general (enforced since 2011), the Swiss immigration regime is becoming increasingly liberal although its focus remains on the EU region following the signing of free movement agreements. These changes were seen as a response to Switzerland's centuries-long shortage of skilled workers (Riaño et al. 2017, p. 6; Merçay 2009). On the one hand, notwithstanding the fear about "uberfremdung" (over-foreignization), one cannot overlook the fundamental role of foreign labor in the Swiss economy since the nineteenth century (Lavenex 2004, p. 191; D'Amato 2014), which could explain the role of influential employment groups and economic actors in the shaping of the Swiss immigration policy and the often-supportive attitude of cantonal and Federal authorities to these groups. Hence, despite the anti-migrant and pro-restrictionist rhetoric fueled by xenophobic groups and right-wing political parties, political action tends to be more geared to curbing irregular migration and tightening the asylum policies rather than significantly reducing the foreign workers' inflows (Lavenex 2004). On the other hand, increased internationalization with the accrued power of supranational institutions such as the EU, the liberalization of international trade and exchange implies that Switzerland takes the European and global trends into account so as not to be in the margins of the international competition to attract talent. This is reflected in the "utilitarian and instrumental approach" (Fibbi 2007, p. 6) of the Swiss admission policy towards the highly skilled geared to strengthen the overall economy and international competitiveness. As argued by Duncan

(2012, p. 5) “while domestic factors matter, states’ policy preferences are influenced by international factors (…). In other words, while decision makers are attentive to internal concerns and policy options, they are mindful of developments abroad.” Besides non-state actors, the public opinion, and the international context, the state plays an essential role in the shaping of immigration policy and strives to develop laws and legislations to safeguard the “national interest” and to maintain its power and autonomy although it is not immune to the influence of internal and external societal pressures, as posited by the institutionalist approach (Meyers 2000).

International Migration of Health Professionals in Switzerland: Recent Dynamics and Current and Future Demand for Healthcare Professionals

The international migration of health professionals has been the subject of an extensive body of literature. However, the lack of disaggregated data on the level of qualifications and the origin of the training (integration of variables such as occupation, nationality, and the country where degrees were obtained) is a serious shortcoming when seeking a deeper understanding of the international migration of health professionals. In this context, the WHO (2006) and the OECD (2008) recommend setting up systematic and transparent national monitoring of the inflows and outflows of health professional migrants. This section examines the current and future demand for healthcare professionals. It then analyzes the increased participation of foreign health professional trainees in the Swiss health system and ultimately discusses the shortage of healthcare professionals and the dependence upon international healthcare professionals.

The Current and Future Demand for Healthcare Professionals

In the past, gaps in the available data and information make it difficult to determine the proportions of health professionals trained in Switzerland and those trained abroad. Such gaps also limit the potential for understanding the demographics of foreign-born health professionals working in ambulatory care, the length of stay of migrant health professionals, the number of years for which they are employed in the Swiss health system, and the proportion opting for permanent settlement in Switzerland, migration to another country, returning to their country of origin, or circular migration. The available statistical data do not allow the migration history of health professional to be traced. Furthermore, an understanding of the international migration of Swiss-born health professionals abroad was also limited by knowledge gaps and the lack of disaggregated data (Jacquard Ruedin and Widmer 2010, p. 79). However, there are increasing efforts to address such gaps in data and statistics relating to international migration and integration in Switzerland. For instance, the SYMIC (central information system on migration) database provides statistics about the magnitude of the (permanent and temporary) resident population in Switzerland and the number of persons entering into and exiting from this country. However, it does not include information that allows researchers to trace the professional trajectory of individuals admitted to Switzerland on grounds of family reunification. It collates information about the occupations of migrants and not their level of education (Merçay et al. 2016, pp. 21–22). Moreover,

a project by the Swiss National Center of Competence in Research—The Migration Mobility Nexus aims to provide an accurate statistical description of international migration and integration of migrants in Switzerland using administrative data and surveys covering the period 1998 and 2013 and based on longitudinal approaches. By using a longitudinal database on foreigners living in Switzerland, this project enables researchers not only to follow the trajectories of migrants in Switzerland but also to follow migrants in different points in time to measure their integration processes (Steiner and Wanner 2015).

Staff shortages affect various occupations in the Swiss health sector. Over the next 20 years, according to demographic forecasts, there will be a need for between 120,000 and 190,000 healthcare professionals (Jacquard Ruedin and Weaver 2009, p. 14). The challenges relating to healthcare, especially in the context of the aging population are such that a substantial increase in the number of health workers would be required (Jacquard Ruedin and Weaver 2009; Merçay et al. 2016).

Increasing Participation of Foreign-Born Health Professionals in the Swiss Health System

The Swiss health system is characterized by the increasing participation of foreign-born health professionals. For instance, 60% of the nurses recruited between 2010 and 2014 in the Swiss health sector held a Swiss diploma, while 40% had a foreign diploma. During this period, while 10,952 nursing diplomas were awarded in Switzerland, 6347 health personnel holding foreign diploma migrated to Switzerland. In 2014, health professionals holding a foreign diploma and working in EMS accounted for 13.1% of the total workforce of these institutions against 11.0% in 2010. Owing to attractive remuneration conditions in Switzerland in comparison with its neighboring countries, most of these health personnel employed in the Swiss socio-medical institutions ("EMS") were from France, Germany, and Italy (Dolder and Grünig 2016, p. 19).

Data and statistics reveal an increase in the number of health migrant workers in hospitals, clinics, medico-social institutions and through private recruitment agencies. 83.9% of the health personnel granted authorization for residence in 2014 were employed in hospitals and clinics in Switzerland. Health migrant professionals in midwifery and medico-technical occupations were predominantly employed in hospitals. Health migrant workers trained in the secondary sector (II) were mainly employed in medico-social institutions (31.4%) though most were recruited via private recruitment agencies (Merçay et al. 2016, p. 57).

In 2014, 83.3% of foreign-born health workers originated from Switzerland's neighboring countries (France (41.0%), Germany (31.6%), and Italy (7.2%)). Health professionals from other European Union member countries accounted only for 7.4% (Merçay et al. 2016, p. 59). In 2014, more than 80% of health professionals trained in the tertiary and secondary sector were from these neighboring Swiss countries; 26.6% of the health staff employed in medico-technical occupations were from other European Union member countries (Merçay et al. 2016, p. 60).

In 2005, the total number of foreign-born health professionals was estimated at 115,400 against 367,000 Swiss-born. The share of foreign-born health professionals in the Swiss health sector was estimated at 24%. The period from 1995 to 2005 was characterized by a significant rise in the annual percentage of foreign-born professionals' employment (+ 2.9%) in comparison with the Swiss-born professionals (more than 2.4%). Foreign-born

health professionals were more represented in healthcare administration, prevention, and marketing compared with the Swiss nationals. Moreover, increasing participation of foreign-born health workers in medical practices has been noted (more than 3.7% in 2005 as against 1.1% in 1995). This was also the case in dental practices (more than 2.5% in 2005 as against 0.5% more in 1995). The Swiss-born health professionals were predominant in outpatient care services. The foreign-born health professionals were better represented in the home-based care occupations (12%/year) than the Swiss nationals (Office Fédéral de la Statistique 2007, p. 13).

In 2005, health professionals of foreign origin occupied 30% of hospital jobs, 29% of the occupations in pharmaceuticals, healthcare marketing, and services, 13% of the ambulatory care occupations, and 7% of the healthcare administration professions. Foreign-born physicians represented 24% of the total workforce in the health sector. In 2008, the Swiss health sector employed 409,438 Swiss-born health professionals and 132,386 foreign-born health professionals (Office Fédéral de la Statistique 2007, p. 13).

The Swiss health system is characterized by significant international recruitment of healthcare workers, which poses various challenges regarding the planning of human resources for health (Merçay et al. 2016; Sordat Forenerod 2012, p. 4). In 2008, the number of migrant health professionals exceeded the number of graduates that year from Swiss health schools (fewer than 700 graduates). Between 2010 and 2014, two out of three graduates in Swiss health schools were foreign born. While an increased number of graduates could help to some extent reduce the shortage of health workers especially those with tertiary education, the international migration of health professionals will continue to play a fundamental role in the strengthening of Swiss health workforce in the coming years (Merçay et al. 2016, pp. 67–68).

Shortage of Healthcare Personnel and Increasing Dependence Upon International Healthcare Professionals

Even though the Swiss health system is ranked among the best in the world by the OECD, it faces a pressing need for healthcare professionals (see OECD 2007). Between 1989 and the early 2000s, the Swiss health system faced a limited supply of healthcare professionals and an increasing demand for healthcare among the population, as reflected in the growing number of patients. The demographic forecasts of the Swiss Nursing Association predicted a nursing shortage in the coming decades. Similarly, estimates point to a shortage of medical doctors in the coming years. The shortfall of health workers mainly affects the nursing profession. More nurses are required to reduce the deficit in nursing staff, especially in specialty nursing care, such as in intensive care, operating rooms, surgery, neonatal care and anesthesia units (Jacquard Ruedin and Weaver 2009). From the 2000s to today, despite efforts aimed at strengthening the domestic training to meet health workforce self-sufficiency, Switzerland is still confronting a looming health workforce shortage (Merçay et al. 2016; Dolder and Grünig 2016).

The shortfall in the nursing workforce is partly due to a reduction in the number of nurses, the growing needs for healthcare and the low attractiveness of nursing as an occupation. Among the other causes of the shortage in the nursing workforce are low income, long working hours, and a lack of recognition of the nursing occupation. All these factors may contribute to the attrition and lack of motivation of the nursing workforce. Speaking about the shortage of nursing health workers, Urs Weyermann, a

former Secretary General of the Swiss Nurses Association raised the following concerns: "Who would embark on demanding, time-consuming and low paid jobs with less social recognition, while greater employment opportunities exist in other sectors?" (cited by Chirine 2008, p.10; author's translation).

The aging of the workforce is one of the leading causes of a rise in future demand of healthcare professionals in most OECD countries. According to demographic forecasts, the need for healthcare workers in the Swiss health system will be growing in the coming decades in the context of an aging population and workforce (Jacquard Ruedin and Weaver 2009; Merçay et al. 2016; Dolder and Grünig 2016). Appropriate policies and intervention strategies are required to meet the challenges of an aging population and aging health personnel. The aging of the workforce is particularly evident in the Swiss socio-medical institutions ("EMS"). Thirty percent of the health professionals working in the EMS will have reached retirement age by the 2020s and 60% by the 2030s. The retirement age will concern 15 and 39% of the Swiss health workers in 2020 and 2030, respectively. The withdrawal from work and workload noticed especially in the nursing workforce coupled with the aging of the health workforce results in an increased need for healthcare workers (Jacquard Ruedin and Weaver 2009). Recent forecasts by the Swiss Health Observatory pointed to an additional need of 244,000 health professionals by 2030, against a background of increasing aging of the Swiss population, which represents an increase of 36% of the total number of health workforce in 2014 (Merçay et al. 2016, p. 10; Merçay and Grünig 2016, p. 2).

Notwithstanding the emphasis on domestic training, the number of graduates from Swiss health schools is insufficient to meet needs for replacement of the health personnel by 2025 (Merçay and Grünig 2016, p2). In 2014, the number of graduates in Swiss health schools represented only 56% of "the annual needs for replacement of the health personnel by 2025" (ibid). The need seems to be more severe for health workers trained in the tertiary sector (43%). However, significant progress was made for health professionals trained in the secondary sector (ibid).

The alarming demographic forecasts warn of a significant reduction in the number of young graduates from the Swiss compulsory schools. According to the Swiss Federal Statistics Office, vocational training schools have the highest shortfall in the supply in the number of graduates compared with the secondary schools or Matura schools (*écoles de maturité*). This is not without consequences for recruiting young graduates, and may, in turn, have adverse consequences on training in tertiary educational establishments. Estimates by sector level highlight a lack of health workers in medical, therapeutic and technical occupations as well as in midwifery and allied health professions. As these professional bodies are concentrated mainly in laboratories and institutes, it is difficult to obtain an accurate estimate of the shortage of health personnel in these health sectors (Jacquard Ruedin and Weaver 2009, pp. 8–9).

A decrease in the number of graduates in medical and therapeutic occupations was noticed in 2005 and 2006, owing to shifts in health sector training. Lower growth in the number of graduates was noted in 2006, followed by higher growth in 2008. Overall, the number of occupations in the services and assistance sector decreased in 2007 and 2008, following the removal of the Infirmière Diplômées (DNI; author's translation: graduate nursing degree) training scheme. This has resulted in generating up to 1000 certificates/year (figures decreased to 340 by 2008), while the number related to nurses is relatively stable. Growth in the number of people trained in the secondary sector (II) was observed,

owing to success in setting up new training opportunities in care assistant and community healthcare delivery. A reduction in the number of caregivers in the Swiss cantons is linked to the removal of training opportunities (replaced by a new federal certificate in healthcare and social assistance). The diminished number of nurse aides is attributable to the termination of this training scheme (replaced by a new Federal diploma in healthcare and social assistance). In 2008, only 750 certificates were awarded, against 1200 certificates in the previous year. There was an increase in the number of graduates in the health and care professions; 3750 in 2000 against 5200 in 2008. Despite the existence of specialized secondary school education, the number of care and assistance occupations is still low (Jacquard Ruedin and Weaver 2009, pp. 7–8).

The "Training in healthcare professions" Masterplan endeavored to increase the number of diplomas in nursing delivered in Swiss health schools during the period 2010–2015. (SEFRI 2016). Despite the initiatives aimed to match the creation of training and internships places with the need of health personnel as evidenced by the Masterplan, Switzerland will remain highly dependent on the international migration of health professionals to respond to health workforce shortage.

Switzerland is one of the leading centers of attraction for healthcare professionals from European Union member countries such as Germany and France, as a result of the signing of bilateral agreements on the free movement of persons. Proximity to France, Germany, and Italy, which are the main areas for recruiting by Swiss healthcare institutions, and the economic attractiveness of Switzerland to the citizens of European Union member countries, could explain why Switzerland is not involved in a dynamic international scheme for the recruitment of health professionals outside the European context (Jacquard Ruedin and Widmer 2010; Merçay et al. 2016; Dolder and Grünig 2016). For instance, medical health professionals and students from Germany account for a significant proportion of the staff in the Swiss hospitals and clinics (about 75% of the workforce in some German-speaking cantons of Switzerland). Posts in psychiatry, anesthesia, radiology, and other specializations that are less attractive to the Swiss-born professionals are increasingly filled by foreign health professional trainees (Taverna 2006). The Geneva health sector employs a large number of cross-border health professionals. Most of them are French nationals. One in five jobs in the Geneva health institutions are held by cross-border health professionals (*frontaliers*) (Chirine 2008).

There are constraints concerning the international recruitment of health professionals in Switzerland. These constraints can be grouped under various headings: legal, financial, and human resources related. Shifts in regulation relating to working hours and time off work, the reduced number of graduates in medical sciences in Switzerland, the feminization of the health workforce, the increasing numbers of part-time jobs, and the lack of job opportunities in the health sector in Switzerland's neighboring countries (France, Germany, and Italy), all have implications for the Swiss health workforce. There are more constraints in Western Switzerland about the recruitment of health professionals than in the German- and Italian-speaking parts of Switzerland. In the context of a health professionals' deficit, Germany, Italy, and France represent the primary recruitment pool of the German-, Italian-, and French-speaking parts of Switzerland, respectively (Office Fédéral des Migrations 2005).

To conclude this section, the Swiss health institutions are heavily dependent upon healthcare professionals originating from France, Germany, and Italy. Between 2007 and 2008, the numbers of foreign-born professionals working in Swiss hospitals and socio-medical institutions increased significantly in comparison with the numbers of Swiss-born

health professionals. The challenges faced by Switzerland include the aging of the population and the health workforce, demographic pressures, the dependence upon the international migration of health professionals, the complexity of healthcare needs and the limited number of suitably qualified recent graduates. The chronic dependence upon the foreign-born skilled professors contrasts with the often restrictionist and anti-migrant political rhetoric in Switzerland, which is an inkling of evidence of a migration paradox (Hollifield 2004). Moreover, Freeman's (1995, p. 885) analysis about the influence of interest group system and how these groups lobby to influence immigration policymaking can explain partly the way employers in the Swiss health sector (Merçay 2009; Huber and Mariéthoz 2010) and also other sectors of the Swiss economy; Cattacin 1987) strive to alleviate the constraints related to the international skilled workers' recruitment and the often-supportive attitude of Swiss stakeholders.

Laws and Legislation Relating to the Admission of Foreign-Born Professionals, Recruitment of International Health Professionals, and the Recognition of Foreign Professionals' Qualifications

Switzerland has implemented laws and legislation to address the shortage in the healthcare workforce and its increasing reliance upon international recruitment. These laws and regulations aim at alignment to the global trend characterized by the accelerating internationalization of health services and the growing privatization of the international recruitment of health professionals through the existence of private recruitment agencies, while allowing for better management of the domestic supply and the entry of foreign health professionals. This section first analyzes the laws relating to the admission of foreign-born professionals and, secondly, the national and international legal instruments relating to the international recruitment of health professionals. Thirdly, it will analyze the issue of recognition of foreign-born professionals' qualifications and credentials.

Our analysis of the admission of foreign-born professionals allows us first to provide an understanding of the dynamics of the Swiss migration policy. The primary objective of this migration policy is to meet the demands of the labor market and the economic sector while ensuring the continuous monitoring of migration flows to mitigate the perceived migration risk' anxiety about which is fueled by the media, political parties, and xenophobic movements, all of which may have serious consequences for social stability. A fundamental paradox underlies Swiss migration policy: despite a higher rate of foreign-born population in comparison with the native Swiss, Switzerland is not considered a "nation of immigrants" (Gross 2006, p. 3). Another paradox of the Swiss migration policy is the difficulty of reconciling the interests of the economic forces (because of the need for labor) and the pressures from right-wing political parties and anti-immigration groups. These political pressures are the backbone of xenophobic attitudes that depict migrants, especially from developing countries, as "la misère du monde" or "woes of the world" (author's translation) invading the Swiss paradise. The search for a balanced formula to accommodate these different parameters has resulted in the adoptation of a quota system to protect the domestic labor market while considering the requirements of the economic forces regarding labor supply (Gross 2006).

Adopted in 1990, the policy of "three circles" endeavored to address the "heterogeneity" of the Swiss population, with its large intake of the foreign-born population. The law of the three

circles was based on a preferential system, with priority given to Swiss nationals and European Union member countries' citizens and those from the EFTA member countries (Liechtenstein, Iceland, and Norway), followed by nationals from the North America Free Trade Association, and, finally , non—OECD countries' nationals (mostly developing countries). The increasing demand for skilled workers in the Swiss labor market led to the removal of the three-circle policy and its replacement in 1998 with a two-circle policy. Under the two-circle policy, nationals of European Union member countries are given priority for entry into the Swiss labor market, as a result of the signing of bilateral agreements relating to the free movement of people between the EU and Switzerland. Under the reciprocity rule, European Union and Swiss nationals can freely settle and look for employment in one another's countries. The admission of nationals from non-OECD countries to Switzerland is subject to conditions. Only highly skilled workers from non-OECD countries holding exceptional qualifications and competencies can obtain a work permit in Switzerland (Efionayi et al. 2005).

The admission of non-EU foreign-born nationals to the Swiss labor market requires labor market testing and the approval of the Swiss Cantonal Office. A request for a prior agreement made by the employer to the Cantonal Aliens Police is a prerequisite for obtaining a residence permit. The significant demand for skilled labor is such that skilled foreign workers have better chances of getting a job in Switzerland than the lower skilled professionals. The employment-based license is contingent upon gaining employment in the Swiss labor market and obtaining a visa (visa for employment purpose) from the Swiss consular authorities and embassies. The labor market testing does not apply to highly skilled workers (managers and chief executives) (Christian 2000, p. 46).

The desire to prevent massive migration into Switzerland has led to the adoption of the Federal Law "Order Limiting the Number of Foreigners" for non-EU foreign-born nationals (Efionayi et al. 2005). The Law for Entry and Residence of Foreigners (LSEE) allowed for different types of residence permits depending on the reasons for admission to Switzerland (Ionescu et al. 2009, p. 53; Gross 2011). For several decades, the political consensus underlying the adoption of the LSEE and its ensuing xenophobic tone has been a hindrance for setting up a coherent Swiss migration policy geared to the integration of the migrant population. The concerns of Swiss employers about the chronic skill shortage and the significance of international recruitment of a skilled workforce for the Swiss economy along the human rights challenges underlying the LSEE that was criticized for its underlying "cultural and demographic xenophobia" has led to the removal of this law and its replacement by the Foreign Nationals Act (FNA) that came into force in 1 January 2008. The FNA represents a significant paradigm shift in that it includes a chapter related to the integration of migrants (D'Amato 2008, p. 171). The FNA emphasizes the need to ensure that the admission of foreigners serves the interest of the whole Swiss economy not only specific economic sectors. In this respect, the FNA targets non-European highly qualified labor migrants or EU citizens whose admission is governed by bilateral free movement agreements between Switzerland and the EU adopted since 2002. Under this new law, holders of authorization for residence have more easy access to the Swiss labor market and the right to family reunification without a prior waiting period (D'Amato 2008, p. 173).

Laws Relating to the Admission of Foreign-Born Health Professionals

The Swiss authorities have implemented sets of laws and legislation aimed at addressing the constraints on the international recruitment of health workers. The international

recruitment of healthcare professionals is subject to some conditions and rules, including the official confirmation that a shortage exists. These legal instruments were included in the LSEE guidelines on the entry of foreign doctors to Swiss hospitals and clinical institutions (Appendix 4 8a, No. 49121). These guidelines came into effect as of January 2004 focusing on doctors trained in radiology, anesthesia, and psychiatry. Derogations from the new LSEE Guidelines (Appendix 4/8a, No. 491.21) were related to the admission of general practitioners in the Swiss clinical and hospital institutions. This exemption was introduced to address the shortage of health workers (Office Fédéral des Migrations 2005).

Following the removal of the LSEE, the admission of non-EU foreign-born professionals including health personnel is regulated by the FNA.

The new Federal law related to foreigners does not apply to EU citizens following the signing of bilateral agreements between Switzerland and EU. Such agreement along with the mutual recognition of qualifications between Switzerland and EU has facilitated the process of international recruitment of skilled professionals for Swiss employers including in the health sector (Merçay 2009, p. 123). With the free movement agreement, Switzerland has moved from quota policy to a two-policy circles that prioritize Swiss and EU citizens over jobs, and finally, third-country nationals subject to certain conditions specified by the FNA (see articles 20–25).

The Directive 2005/36/EC of the European Parliament and Council and the "Loi fédérale sur les professions de la santé" provide the legal basis for the recognition of foreign qualifications and credentials (see next section).

Recognition of Foreign Credentials and Qualifications and Licensing Procedures

In Switzerland, the Federal Commission for Medical Practitioners serves as an institutional body for the recognition of the foreign qualifications of health professionals. The procedure for the recognition of diplomas is not contingent upon gaining employment in the Swiss labor market (Jacquard Ruedin and Widmer 2010, p. 37). However, the Swiss cantons are becoming increasingly cautious about assessing foreign credentials and qualifications (Huber and Mariéthoz 2010).

The establishment of licensing procedures and the quotas system are meant to regulate the admission of international health professionals and to protect the internal labor supply. The entry of foreign health professionals follows a set of rules, including labor market testing, to ensure that an appropriate Swiss citizen or Swiss permanent resident can fill a vacancy. The legislation provides the conditions for a waiver. The licensing procedures require the recognition of foreign credentials and qualifications. Only diplomas and qualifications obtained in accredited universities and health schools are given consideration.

Owing to the structural dependence of Switzerland to foreign-born health professionals, a focus has been to set up "clear and transparent rules regarding the recognition of diplomas" (SEFRI 2016, p. 24; author's translation). The Swiss Red Cross is in charge of the recognition of foreign qualifications and implements the directive 2005/36/EC of the European Parliament and Council. In case of non-implementation of this directive, the recognition of foreign qualification is governed by the "Ordonnance sur la formation professionnelle" (OFPr) and the "Ordonnance relative à la loi sur l'encouragement et la coordination des hautes écoles" (O-LEHE). The "Loi fédérale sur les professions de la santé" is expected to be the leading guiding legal

framework for the recognition of foreign qualifications for regulated professions (SEFRI 2016, p. 24).

The free movement agreement between Switzerland and the European Union covers the reciprocal recognition of professional qualifications for regulated professions. A sectoral system of recognition regulates the nursing occupations while the general system of recognition covers other non-university healthcare occupations. The principle of reciprocal recognition applies to EU member countries. Switzerland may require an adaptation period or aptitude test if the candidate does not meet the requirements regarding curriculum and duration of the study, in line with the Directive 2005/36/EC. Articles 69 ss of the OFPr and articles 4 ss of the O-LEHE supplement the free movement agreement ("Accord sur la Libre Circulation (ALCP)" concerning the recognition of foreign diplomas for third countries' nationals. Furthermore, the enforcement of the Directive 2013/55/EU (amending the Directive 2005/36/EC) in Switzerland is pending on the implementation of the popular initiative "Against massive immigration" (SEFRI 2016, p. 25). Overall, the Swiss (labor) migration policy follows a restrictive strand for non-EU/EFTA citizens and is more welcoming for the EU nationals. Although the regulation of the migration of EU nationals to Switzerland is not a priority focus since the coming into force of the bilateral agreement (Lavenex 2004), nationals from countries such as Bulgaria face constraints to access to the Swiss labor market owing to restrictive measures despite this country being a member of the EU (Zareva 2017, p. 131). Notwithstanding the institutional and legal rigidities, the employers of the health sector have room to maneuver to recruit non-EU/EFTA health staff for instance through the internship scheme or under specific conditions for occupations with proven skilled health shortage. Recruitment practices take into account the rules and regulations that include windows of opportunity to alleviate legal and administrative constraints. They can also be influenced by past decision-making processes. The popular vote against massive migration of 9 February 2014 in favor of introducing annual quotas and quantitative limits and reconsidering the EU-Swiss agreement on the free movement of persons could constraint the international health staff recruitment and force the Swiss government to emphasize self-sufficiency in skilled health personnel. Nevertheless, the agreement still applies for EU citizens as the new draft legislation following this vote has not been enforced. Such popular vote signals a growing anxiety of the Swiss not only about the low and unskilled migrants but also highly skilled migrants from the EU countries such as Germany that are perceived by a segment of the population as taking jobs over the Swiss and not willing to culturally adapt into the Swiss society (Diehl et al. 2018). This questions to some extent Freeman's thesis about "a democratic deficit" (Consterdine 2018, p. 26) in liberal democracies given that the public opinion increasingly influences the migration policy making (Lahav 2004, cited by Consterdine 2018), as in the case of Switzerland.

International Normative Instruments Relating to Migration and Recruitment of Healthcare Professionals

Ambivalence towards the international migration of health professionals lies in the diverging approaches relating to its governance: on the one hand, the freedom of movement of the health professionals and, on the other, the right to health for developing

countries. Therefore, there is no broad consensus relating to its governance. To overcome this ambivalence, OECD countries such as the UK, Canada, and Switzerland are more and more concerned about the need to harmonize the varying interests of the actors so that the right of health professionals to move in search of better professional and socioeconomic prospects is not exercised at the expense of the population's healthcare. Destination countries are increasingly aware of the political and ethical concerns underlying the international migration of health professionals (Plotnikova 2012).

Bilateral and Regional Agreements

To facilitate the mobility of health professionals and the recognition of foreign qualifications and credentials, the modus operandum in many OECD countries is bilateral agreements. It should be noted that the diverse migration policies and the lack of health professionals can hinder the effective implementation of these bilateral agreements (Dhillon et al. 2010).

Bilateral agreements between Switzerland, France, Germany, and Italy facilitate the recognition of credentials and qualifications across these countries (Jacquard Ruedin and Widmer 2010, p. 80; Forcier et al. 2004, p. 7).

The international mobility of health professionals in Switzerland and within the EU region is facilitated by agreements on free movement and residence between Switzerland and the European Union member countries.

International Normative Instruments: GATS Agreement and the WHO Code of Practice

International agreements such as the General Agreement on Trade in Services (GATS), in particular, GATS Mode 4, include some directives for better governance of labor mobility including the international recruitment of health professionals. General criteria for the GATS Mode 4 cover nationality and citizenship, work permits, and asylum seekers. The GATS considers creating an enabling environment for "market access and national treatment" as an essential precondition for engaging foreign professionals in the health sector (Forcier et al. 2004, p. 7). The six types of restriction mentioned in Article XVI: 2 of the GATS agreement "may not be adopted or maintained unless they are specified in the schedule" (WTO website). The restrictions apply to the "quota-related barriers" that limit "the number of service providers" or "operations," "the use of economic need tests," i.e., "the number of hospital beds or practices per head of population" (Forcier et al. 2004, p. 7).

The barriers to market access for WTO Members may be alleviated with the proviso that they are mentioned in the schedule of commitments. Article XVII of GATS provides conditions for national treatment. The terms and conditions of national treatment stipulate giving the services and services providers of any other Member treatment that is no lesser favorable than accorded to domestic suppliers and service suppliers (WTO Website). The absence of binding rules regarding national treatment can be addressed on the condition that any restrictions aimed at protecting the interests of the nationals are specified in the "schedule of commitments" (Forcier et al. 2004, p. 7). The commitment under GATS regarding the health sector is specified under the following four modes of supply: (a) cross-border trade (e.g., telemedicine), (b) consumption abroad (e.g., health tourism), (c) commercial presence (e.g., foreign hospital

established in another country), and (d) temporary movement of service suppliers (temporary assignments of physicians in another country) (WTO Website).

The GATS agreement aims at limiting the negative impact of the international migration of health professionals. However, the fact that few countries have policies committed to tackling the migration of health professionals impedes the enforcement of the GATS.

The objective of the Global Code of Practice adopted by WHO at its 63rd World Health Assembly on 21 May 2010 is to facilitate better governance of the migration of health professionals, according to the principles of transparency, justice, and fairness and to address the adverse effects of brain drain on the health systems of developing countries. This Code of Practice emphasizes the rights of health professionals (to emigrate) and the rights of the origin and destination countries through adopting a win-win approach (WHO 2010). Although Switzerland is committed to implementing the WHO Code of Practice, this requires effective implementation at the national level. National dialogue and cooperation between the various stakeholders is a critical factor in achieving the objectives underlying the WHO Code of Practice. However, the lack of coherence and harmonization between the Cantons and the Confederation and of coordination between stakeholders in the public and private sectors hinders its effective implementation at the national level (Sordat Forenerod 2012).

The adoption of ethical recruitment principles by OECD countries can be considered a "soft law" aimed at balancing two aspects: the right to freedom of movement and the right to health. States use soft laws as a framework that enables varying interests to be taken into account while allaying the political concerns of the different actors. The ambivalence underlying the adoption of soft laws arises because while it promotes the "right to health" in low-income source countries through the adoption of codes of practice for the international recruitment of health professionals, it also acts to safeguard the "reputation" of institutional actors (Plotnikova 2012).

Although the WHO Code of Practice aims at improved regulation of the international migration and recruitment of health workers, its non-binding nature is a limiting factor for its normative and legal consideration (Forcier et al. 2004).

As this review of the laws shows, the regulation of international recruitment of health professionals is carried out through a variety of provisions and frameworks: bilateral agreements, migration-led laws, employment-led laws, and assessment of foreign professional qualifications and proof of language skills as part of the procedures for granting a work and residence permit. A lack of coherence between federal and cantonal policies exists, hindering the process of recruitment of international healthcare professionals and evaluation of credentials and qualifications in Switzerland.

Policies for Better Governance of the International Migration and Recruitment of Healthcare Professionals

The international migration of health professionals is considered by some as a manifestation of the crisis of health systems in developing countries and by others as a result of the global shortage of health professionals (WHO 2002). It also affects wealthier countries although its negative effects are more severe in the economically vulnerable countries. Controversies about brain drain in the health sector and the adverse effects of economic globalization on public health systems have raised concerns about the international recruitment of health

professionals (OECD 2010). The growing internationalization of labor market and the acute shortage of health workers (IOM 2004) have led governments and policy makers to see the migration of health professionals as a global challenge. The international migration of health professionals has raised various concerns about its negative effects on the public health systems in developing countries (World Health Assembly 2004).

Health institutions in Switzerland are faced with a chronic shortage of health personnel. If this shortfall in health professionals is not addressed, it will have a negative impact on the ability of Swiss healthcare institutions to meet the growing need for healthcare professionals. Despite a population-to-physician specialist ratio higher than the OECD average, the Swiss health system is facing an unequal distribution of healthcare professionals across regions, health occupations, and sectors. Health occupations such as assistance and community-based care are faced with a shortfall of healthcare workers, which cannot be addressed solely by recruiting recent graduates. The aging of the health workforce is one of the main challenges for the planning of health human resources. Switzerland is among the countries that have the most recourse to international health professionals to meet the demand for health workers. However, the international recruitment of health professionals cannot help address the goal of self-sufficiency in human resources for healthcare.

To deal with these problems, the Swiss cantonal and federal stakeholders have put in place a series of measures. These include: encouraging younger students to move towards medical and nursing occupations, staff retention in the health sector, and reskilling and retraining in other health occupations. Despite the measures and policies implemented, the shortage of health workers in Switzerland remains a structural impediment. Healthcare institutions and cantonal stakeholders should collaborate on a wide-ranging assessment of the demand for health workers in Switzerland (Jacquard Ruedin and Weaver 2009).

Monitoring the International Migration of Healthcare Professionals

The international migration of health professionals is characterized by different causes and dynamics (temporary migration, return, permanent and circular migration). Switzerland is a country of origin and destination of health professionals, i.e., what Connell (2010, p. 45) describes as "bidirectional flows," although Switzerland has more open policies towards highly skilled professionals from the EU region. This could minimize the problem of "brain drain" in the health sector in this country, as the inflows of internationally educated health professionals can compensate to some extent for the outflows of Swiss health workers.

Fragmentation of responsibilities between federal and cantonal jurisdictions arises in and can lead to a bottleneck in the better management of health professional migrant flows and the recognition of their qualifications and credentials. Switzerland has implemented programs to promote the recognition of diplomas and qualifications.

Allocating Enough Funding and Human Resources and Encouraging the Training of Young Graduates

One of the essential conditions for higher efficiency of the health system is the allocation of more money and qualified health personnel. There is also a need to see appropriate measures to prevent future shortages in the health sector, including in general medicine

and long-term care. One of the recommendations of the Swiss umbrella organizations in the health sector is to focus on the training of junior medical doctors and nurses to take over and encouraging young people to move towards careers in the past that have not been so attractive to Swiss health professionals (Jacquard Ruedin and Weaver 2009).

The Swiss health institutions should emphasize the training of young graduates and develop incentive policies to engage young people in working towards careers in the health sector while improving the working conditions of health professionals. Regulating the flows of migrant health professionals would help reduce the harmful effects of the international migration of health personnel on the developing countries from which they originate (Jacquard Ruedin and Weaver 2009, pp. 8–9).

Achieving Self-Sufficiency

The underlying principle of the notion of self-sufficiency is the capacity to develop and strengthen the health workforce, both in qualitative and quantitative terms, so as to adapt to the present and future health needs of the society: “Self-sufficiency in health human resource is the ability to attract, develop and retain the right supply and mix of skilled healthcare providers working within each of jurisdictions’ service delivery models to provide high quality, timely, safe care that meets the populations’ changing health needs” (Advisory Committee on Health Delivery and Human Resources 2009, p. 22).

Self-sufficiency in the health workforce is a critical dimension in the new Swiss Health Foreign Policy. Moreover, beyond the health system, the issue of self-sufficiency remains a serious problem in various sectors of the Swiss economy, which is mostly dependent on the international migration of skilled workers, mainly from the neighboring countries. To reduce the dependence of the Swiss health system on foreign-born health professionals, a focus has been put on training young graduates to ensure the next generation of skilled health professionals. There have been significant efforts to increase the number of young graduates in the Swiss public health schools and faculties of medicine. According to Jacquard Ruedin and Widmer (2010, p. 85), the number of graduates from the Swiss medical schools accounts for only one-third of the total health workforce needed for achieving self-sufficiency in health human resources. The idea of self-sufficiency follows the recommendation of the WHO code of practice. However, countries that are involved in self-sufficiency scheme could be the target for international recruitment by countries faced with the shortage of health workers. For instance, the UK and Canada are currently developing self-sufficiency policies and at the same time, health professionals from these countries migrate to the USA and Australia. Despite the limited number of Swiss health professionals’ outward migration and the considerable efforts to develop the domestic skilled health staff, it is unlikely that Switzerland will achieve self-sufficiency for various reasons including the difficulty to create new places for training due to financial constraints, limited number of places available for practical training, and the political, economic, and ethical implications of the international health workers’ recruitment (SEFRI 2016).

Facilitating the Integration of Foreign Health Professionals

The Swiss Federal Office of Public Health in its “Strategy 2008–2013” Report published in 2007 recommends integrating migrant professionals into the health sector to benefit from

their "cultural competence" (OFSP 2010). The Red Cross has developed a training program "health assistants of the Swiss Red Cross" through its Health and Training Department. This training is devoted to enhancing the skills of foreign-born health workers.

Implementing the WHO Code of Practice

Switzerland, like many OECD countries, is increasingly turning toward a "balanced regulation" scheme: depending upon foreign-born health workers, ensuring the next generation of skilled health professionals by encouraging the training of young graduates to meet the local demand for labor, providing sufficient financial resources to healthcare institutions, and addressing the brain drain problem in the health sector in developing countries (Chaloff and Lemaitre 2009).

The Swiss External Health Policy, which was adopted on 9 March 2012 by the Swiss Federal Council, strives to balance the needs for health workers in the Swiss healthcare institutions with the national and international normative instruments relating to the international recruitment of health professionals. This new Health Foreign Policy emphasizes development assistance, to strengthening the health systems in developing countries, improving the working conditions, and fighting against brain drain through the retention of the local workforce. The Swiss Interdepartmental working group has been set up to assist in applying the Code of Practice relating to national and international recruitment of health personnel. This interdepartmental working group was involved in the preparatory work for the Code of Practice. The WHO evaluated the national and international situation regarding the recruitment of healthcare workers and the implications for the healthcare systems in countries of origin and destination (Sordat Forenerod 2012).

One principal aim of the Swiss development assistance is to address the brain drain in the health sector by strengthening the health systems in the countries of origin, particularly in developing countries. An active dialogue between economically advanced countries and developing countries is needed for effective policy coherence and management of the international migration of health professionals, and for the implementation of the code, which is not a legally binding framework. The international migration of health professionals has adverse impacts on the countries at the other end of the migration spectrum. Policies should address the challenges associated with the international migration of health professionals, including the lack of sufficient and skilled healthcare workers, the staff retention problem, the unequal distribution of health professionals across geographical locations and occupations, and the brain-drain problem. However, the restrictions to international mobility to safeguard the right to health for origin countries with scarce health human resources raise the question of the upholding of health professionals' right to mobility irrespective of their national origin. At the same time, the restrictions and/or facilities to international mobility are part of the state's exercise of its sovereignty (Hollifield et al. 2014) in the name of protection of the so-called national interest leading to the framing of the desirables and undesirables as circumstances, interests, stakes, institutions, and domestic and international pressures allow.

Besides, a gap exists between the international normative instruments related to the health workers' recruitment such as the WHO Code of practice and the expected outcomes. For example, recruiters of the Swiss healthcare institutions often are not aware or do not take into account the ethical aspects of the international recruitment of health workers in the face of pressing problems related to a lack of sufficient skilled health staff (Hubert and Mariéthoz 2010, p. 17).

Conclusion

The increasing aging of the workforce, the complexity of healthcare needs, the desire to achieve self-sufficiency, and challenges in achieving this objective due to the structural dependence upon international health professionals are some of the primary determinants affecting the international migration of health professionals in Switzerland.

A significant factor in understanding the migration of health professionals in Switzerland is the dependence of the Swiss health system on international healthcare professionals. The Swiss health systems is faced with an insufficient number of physicians and nurses, the increasing complexity of healthcare needs, the aging of the population, the uneven distribution of the health workforce, the difficulty in constant monitoring of inflows and outflows of health workers due to a lack of disaggregated statistical data related to all the health occupations, and the obstacles to integrating internationally educated health professionals.

The problem of fragmentation of responsibilities between the federal and cantonal jurisdictions was highlighted by Sordat Forenerod (2012) on the Swiss case.

In scrutinizing the management of health human resources in this country, one can observe the following challenges, albeit to varying degrees: insufficient number of medical and nursing staff and allied health professionals, uneven distribution of healthcare personnel, obstacles to the integration of internationally educated health workers, and ethical concerns related to the recruitment of internationally educated health professionals, especially from developing countries, just to name a few.

Because of the demographic shifts, the complexity of healthcare needs and the gaps in planning for health human resources, Switzerland and other OECD countries will continue to rely on the recruitment and migration of international health professionals.

Switzerland adheres to the WHO Code of Practice and GATS Mode IV, which aim to promote better governance of the migration of health professionals through a win-win drive benefiting both the sending and receiving countries. These international normative instruments should be understood in the global context of the governance of the health system and planning for health human resources. Any policy that aims to address the challenges relating to international recruitment of health professionals would need to consider issues relating to staff retention, strengthening of health human resources through incentive policies, and ensuring the next generation of healthcare workers by encouraging young people to move towards health careers. Thus, effective planning of human resources for health, alongside migration policy, is needed to address the challenges relating to the international migration and recruitment of foreign-born health professionals. There is also a need to improve the working and living conditions for the healthcare workers, to maximize the number of young graduates in health sciences, to facilitate their entry into the health labor market, and to address stress, low wages and other frustrations that hinder the retention of the health workforce (Marchal and Kegels 2003, p. 99). Confronting to a chronic skilled workforce shortage and engaging in the international competition to attract talents, one of the challenges is whether Switzerland could meet the goal of self-sufficiency regarding skilled human resources. Based on existing data and forecasting, it is unlikely that this country would be self-sufficient in the next decades regarding health professionals. The question is whether more stringent (labor) migration policies could affect this country's positioning in the international competition to attract talent and how Switzerland would react if its EU recruiting zones develop more incentive policies to attract back and retain their skilled health professionals. Finally, the challenge stems from the lack of policy

coherence of Swiss migration policy as underlain by the problematic transition from international student to skilled mobility for non-EU students who graduated in Swiss universities despite the call of some Swiss policymakers to consider it as a strategy to reduce skilled workforce deficit.

From a theoretical standpoint, this article has suggested the relevance to combine the institutionalist, liberalist, interest groups, and partisan politics approaches while taking into account the limitations of each of these theoretical perspectives (Consterdine 2018; Natter 2018; Boswell 2007; Meyers 2000) to shed lights into the complex nexus between Swiss migration policy and the international migration/recruitment of health professionals in Switzerland though space limitations have not allowed extensive theoretical developments. The impacts of the health policy and migration policy on the international migration and recruitment of health professionals (vice versa) should deserve greater attention among researchers and policymakers.

References

Advisory Committee on Health Delivery and Human Resources (ACHDHR) (2009). *How many are enough? Redefining self-sufficiency for the health workforce*. A Discussion Paper. Available at http://www.hc-sc.gc.ca/hcs-sss/pubs/hhrhs/2009-self-sufficiency-autosuffisance/index-eng.php. Accessed 30 April 2017.

Afonso, A. (2005). When the export of social problems is no longer possible. Immigration policies and unemployment in Switzerland. *Social Policy and Administration, 39*(6), 653–668.

Arlettaz, G. & Arlettaz, S. (2004) *La Suisse et les étrangers*. Immigration et formation nationale 1848–1933, Lausanne: Antipodes.

Beecham, L. (2002). UK government should stop recruiting doctors from abroad. *BMJ, 325*, 66.

Bolzman, C., & Guissé, I. (2017). Étudiants du « Sud » en Suisse romande: de la précarité lors des études aux risques de brain waste dans le cadre de la mobilité internationale. *Journal of international Mobility, 1*(5), 133–156. https://doi.org/10.3917/jim.005.0133.

Boswell, C. (2007). Theorizing Migration Policy: Is There a Third Way? *International Migration Review, 41*(1), 75–100.

Cattacin, S. (1987). *Neokorporatismus in der Schweiz: die Fremdarbeiterpolitik. Zürich: Forschungsstelle für Politische Wissenschaft.*

Cerna, L. (2016). *Immigration policies and the global competition for talent*. London: Palgrave Macmillan.

Chaloff, J. & Lemaitre, G. (2009). Managing highly skilled labour migration: a comparative analysis of migration policies and challenges in OECD countries. OECD Social, Employment and Migration Working Papers, No. 79, Paris: OECD.

Chirine, S. (2008). *Portrait démographique du personnel infirmier à Genève: population en danger?* Labodémo: Mémoire de Maîtrise en Démographie Univer sité de Genève.

Christian, B.P. (2000) Facilitating high-skilled migration to advanced industrial countries: comparative policies. Working Paper of the Institute for the Study of international Migration, Georgetown University.

Connell, J. (2010). *Migration and the globalisation of health care the health worker exodus?* Cheltenham, UK: Edward Elgar.

Consterdine, E. (2018). *Labour's Immigration Policy – The Making of the Migration State*. London: Palgrave MacMillan.

Czaika, M. (Ed.). (2018). *High-skilled migration drivers and policies*. London: Oxford University Press.

D'Amato, G. (2008). Une revue historique et sociologique des migrations en Suisse, Annuaire suisse de politique de développement [En ligne], vol. 27, No. 2., mis en ligne le 22 mars 2010, Consulté le 30 septembre 2016. URL: http://aspd.revues.org/511

D'Amato, G. (2014). Chapter 10 Switzerland. In I. J. Hollifield, M. Philip, & O. Pia (Eds.), *(2014) Controlling Immigration: A Global Perspective* (pp. 308–332). Palo Alto: Stanford University Press.

Dhillon, I. S., Clark, M. E., & Kapp, R. H. (2010). *Innovations in cooperation. A guidebook on bilateral agreements to address health worker migration (realizing rights: Global Health & Development at the Aspen Institute)*. Washington, DC: The Aspen Institute Available at http://aspeninstitute.org/sites/default/files/content/docs/pubs/Bilateral%20Report_final%20code.pdf. Accessed 10 January 2014.

Diehl, C., Hinz, T., & Auspurg, K. (2018). Who Is Afraid of Skilled Migrants From Europe? Exploring Support for Immigration Control in Switzerland. *Swiss Journal of Sociology, 44*(1), 59–88.
Dolder, P., & Grünig, A. (2016). *Besoins en effectifs dans les professions de la santé. Rapport national 2016. Besoins de relève et mesures visant à garantir des effectifs suffisants au plan national*. Bern: CDS et OdASanté.
Dumont, J-C; Zurn, P.; Church J. & Le Thi, C. (2008). International Mobility of Health Professionals and Health Workforce Management in Canada: myths and realities, WHO/OECD Health Working Papers. Paris: OECD.
Duncan, N. T. (2012). *Immigration Policymaking in the Global Era In Pursuit of Global. Talent*. New York: Palgrave MacMillan.
Efionayi, D., Niederberger, J. M., & Wanner, P. (2005). *Switzerland faces common European Challenges*. Washington, DC: Migration Policy Institute (MPI) Available at http://www.migrationinformation.org/Feature/display.cfm?id=284. Accessed 30 April 2017.
Federal Statistical Office (2016). *Switzerland's population 2015*. Neuchâtel: FSO.
Fibbi, R. (2007). *Swiss admission policy : the highly skilled migrants, Workshop Scientific Diasporas May 4th, 2007*, available at https://cooperation.epfl.ch/webdav/site/cooperation/shared/diaspora/Presentation%20Fibbi%20-%20Swiss%20Immigration%20policy%20and%20the%20highly%20skilled.pdf. Accessed 22 Aug 2018.
Forcier, M. B., Simoens, S., & Guiffrida, A. (2004). Impact, regulation and health policy implications of physician migration in OECD countries. *Human Resources for Health, 2*, 12.
Freeman, G. P. (1995). Modes of Immigration Politics in Liberal Democratic States. *International Migration Review, 29*(4), 881–902.
Gross, D. M. (2006). Immigration policy and foreign population in Switzerland. Policy Research Working Papers. No 3853. Washington, DC: The World Bank. Available at worldbank.org/curated/en/.../pdf/wps3853.pdf. Accessed 30 April 2017.
Gross, D. M. (2011). High-skill migration to Canada and Switzerland: retention, attraction and competition with the United States through policy. Metropolis British Columbia, Working Paper Series No. 11-03. Available at http://mbc.metropolis.net/assets/uploads/files/wp/2011/WP11-03.pdf. Accessed 30 April 2017.
Hollifield, J. (2004). The Emerging Migration State. *International Migration Review, 38*(Fall), 885–912.
Hollifield, J., Philip M., & Pia, O. (Eds.) (2014). *Controlling Immigration: A Global. Perspective*. Palo Alto: Stanford University.
Huber, K. & Mariéthoz, E. (2010) Recherche qualitative sur le personnel de santé étranger en Suisse et sur son recrutement. Berne: Conférence suisse des directrices et directeurs cantonaux de la santé. Available at http://www.gdk-cds.ch/fileadmin/pdf/aktuelles/publikationen/berichte/bt_bericht_gdk_migrationgesundheitspersonal_201011_f.pdf. Accessed 30 April 2017.
International Organization for Migration (IOM) (2004) The migration of health care workers: creative solutions to manage health workforce migration. Seminar on Health and Migration, 9–11 June Session III B-Migration of health care workers.
Ionescu, D., Dia, I. A., & Guissé, I. (2009). *Le potentiel de développement des migrants transnationaux d'Afrique subsaharienne, dans le secteur de la santé à Genève*. Genève: Organisation Internationale pour la Migration (OIM).
Jacquard Ruedin, H. & Weaver, F. (2009). Ageing Workforce in an Ageing Society: how many health professionals will the Swiss healthcare system need by 2030? Careum Working Paper 1. Available at http://www.careum.ch/documents/10180/62992/Careum+Working+Paper+1+(english)/528fd1a4-2a30-45d1-ac25-b36e9b902673. Accessed 11 November 2013.
Jacquard Ruedin, H. & Widmer, M. (2010). L'immigration du personnel de santé vers la Suisse. Obsan Rapport 39. Neuchâtel: Observatoire Suisse de la Santé (Obsan).
Kangasniemi, M., Winters, L. A., & Commander, S. (2004). Is the medical brain drain beneficial? Evidence from overseas doctors in the UK. *Social Science and Medicine, 65*(5), 915–923.
Lahav, G. (2004). Public Opinion Toward Immigration in the European Union: Does It Matter? *Comparative Political Studies, 37*(10), 1151–1183.
Lavenex, S. (2004). Whither the Liberal Democratic Model? Immigration Politics in Switzerland and Japan. *Swiss Political Science Review, 10*(3), 179–209.
Marchal, B., & Kegels, G. (2003). Health workforce imbalances in times of globalization: brain drain or professional mobility? *International Journal of Health Planning and Management, 18*, S89–S101.
Martineau, T., Decker, K., Bundred P. (2002). Briefing note on international migration of health professionals: levelling the playing field for developing country health systems. Liverpool School of Tropical Medicine. Available at http://www.aspeninstitute.org/sites/default/files/content/images/martineau_0.pdf. Accessed 30 April 2017.
Mendy, A. F. (2014). La carrière du médecin africain en Europe: être médecin avec un diplôme africain au Royaume-Uni, en France et en Suisse. *Swiss Journal of Sociology, 40*(1), 47–71.

Merçay, C. (2009) "Le recrutement international d'infirmières en Suisse romande de 1970 à nos jours." *Géo-Regards: revue neuchâteloise de géographie*. No. 2, Migrations contemporaines Textes réunis par Romaric Thiévent et Etienne Piguet, pp. 113–124.

Merçay, C., & Grünig, A. (2016). *Personnels soignants en Suisse—projections à l'horizon 2030 et conséquences sur les besoins de relève (Obsan Bulletin 12/2016)*. Neuchâtel: Observatoire suisse de la santé.

Merçay, C., Burla, L. & Widmer, M. (2016). Personnel de santé en Suisse. Etat des lieux et projections à l'horizon 2030 (Obsan Rapport 71). Neuchâtel: Observatoire suisse de la santé.

Meyers, E. (2000). Theories of International Immigration Policy A Comparative Analysis. *International Migration Review, 34*(4), 1245–1282.

Mullan, F. (2005). The metrics of the physician brain drain. *New England Journal of Medicine, 353*, 1810–1818.

OECD. (2007). *International migration outlook*. Paris: Continuous reporting system on migration (SOPEMI).

OECD (2008). International mobility of health workers: Interdependency and ethical challenges. In: *The looming crisis in the health workforce: how can OECD Countries Respond?* Paris: OECD.

Natter K. (2018) "Rethinking immigration policy theory beyond 'Western liberal democracies'", *Comparative Migration Studies 4*(6), 4-21 https://doi.org/10.1186/s40878-018-0071-9

OECD (2010). International Migration of Health Workers Improving International Cooperation to address the global health workforce crisis. Policy brief OECD Observer. Available at http://www.oecd.org/dataoecd/8/1/44783473.pdf. Accessed 30 April 2017.

Office Fédéral de la Santé Publique OFSP (2010). Les migrations internationales du personnel de santé en Suisse: Etat des lieux et pistes de réflexion. Available at http://www.gdk-cds.ch/fileadmin/pdf/fAktuelles/Publikationen/Berichte/fiche_de_synthese_finale_F.pdf. Accessed 30 April 2017.

Office Fédéral de la Statistique (OFS). (2007). *L'emploi dans le domaine de la santé Faits et tendances à la lumière des chiffres des recensements des entreprises de 1995 à 2005*. Neuchâtel: Département fédéral de l'intérieur (DFI).

Office Fédéral des Migrations (ODM). (2005). *Directives LSEE concernant l'admission de médecins et médecins assistants pratiquant la médecine classique en milieu hospitalier ou clinique*. Berne: ODM.

Plotnikova, E. V. (2012). Cross-border mobility of health professionals: contesting patients' rights to health. *Social Sciences and Medicine, 74*, 20–27.

Riaño Y., Lombard A., Piguet E. (2017) The global race for talent in Switzerland. How to explain migration policy liberalisation to allow international students staying after graduation? Working Paper No. 14. NCCR on the move. University of Neuchatel.

Sandoz, L. (2016) *The Symbolic Value of Quotas in the Swiss Immigration System*. nccr –on the move, highlights #1 / November 2016: (pp. 40–45).

SEFRI (2016). Rapport final. Masterplan «Formation aux professions des soins». Rapport du Conseil fédéral. Berne: Secrétariat d'Etat à la formation, à la recherche et à l'innovation (SEFRI).

Sordat Forenord, v. D. (2012). La mise en œuvre par la Suisse du Code de l'OMS pour le recrutement international des personnels de santé. Bulletin von Medicus Mundi Schweiz Nr. 126. Available at http://www.medicusmundi.ch/de/bulletin/mms-bulletin/gesundheitspersonalmangel-in-der-schweiz-und-weltweit/strategien-gegen-den-gesundheitspersonalmangel/la-mise-en-oeuvre-par-la-suisse-du-code-de-l2019oms-pour-le-recrutement-international-des-personnels-de-sante. Accessed 30 April 2017.

Steiner E., & Wanner, P. (2015) Towards a new data set for the analysis of migration and integration in Switzerland. Working Paper Series No. 1. NCCR On the Move–Université de Genève. NCCR On the Move: University of Neuchatel.

Taverna, E. (2006). Migrations médicales. *Bulletin des médecins suisses/Schweizerische Ärztezeitung/Bollettino dei medici svizzeri, 87*, 4.

Vaitkeviciute, A. (2017). *Migration and mobility of third-country researchers and students in the European Union and Switzerland*. In: Jusletter, February 13 2017.

WHO (2002). Technical consultation on imbalances in the health workforce, Ottawa, Canada 10–12 March. Available at http://www.who.int/hrh/documents/en/consultation_imbalances.pdf. Accessed 30 April 2017).

WHO (2010). WHO Global Code of Practice on the International Recruitment of Health Personnel. Sixty-third World Health Assembly—WHA63, 16 May 2010. Geneva: WHO. Available at http://www.who.int/hrh/migration/code/code_en.pdf. Accessed 30 April 2017.

World Health Assembly (2004) International Migration of Health Personnel: a challenge for health systems in developing countries. WHA 57.19 Geneva: World Health Organisation. 57.9.

World Health Organization (WHO). (2006). *World health report 2006: working together for health*. Geneva: World Health Organization.

World Trade Organization (WTO) (2017) Guide to reading the GATS schedules of specific commitments and the list of article II (MFN) exemptions. Available at https://www.wto.org/english/tratop_e/serv_e/guide1_e.htm. Accessed 29 April 2017.

Zareva, I. (2017). The Impact of Policies on Migration Between Switzerland and Bulgaria. In Richter M., Ruspini P., Mihailov D., Mintchev V., & Nollert M. (Eds.), *Migration and Transnationalism Between Switzerland and Bulgaria* (pp. 123–152). Springer International Publishing Switzerland.