

Management Project

*Service accessibility to general practitioners for undocumented migrants in Amsterdam,
the Netherlands*

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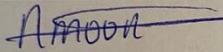
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Bachelor of Arts (Hospitality Management)

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Abstract

DvdW experiences significant challenges in finding General Practitioners willing to accept undocumented migrants as their patient. Health care is a fundamental right, and health care providers are obligated to provide health care to everybody, including undocumented migrants. However, access to health care appears not always to be equally accessible to all people. This study aims to provide more insight into the problems GP practices might face, so the quality of the service could be improved, and accessibility and guidance to health care might be improved and optimized for both GPs and undocumented migrants.

This research collected quantitative data via cross-sectional surveys among GPs located in Amsterdam, the Netherlands. The numerical data collected via this questionnaire was analyzed with the use of the software SPSS.

The results suggest that the migration crisis is influencing the health care accessibility in Amsterdam, as still many practices refuse undocumented migrants to register as a patient or refuse treatment to a passer-by. Furthermore, many GP practices encounter problems when providing health care services to undocumented migrants. The problems vary from languages barriers to financial difficulties. Health care providers must be better informed about their obligation to provide health care to undocumented migrants and how they can provide this care.

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1. Introduction

This chapter will explain which problems Dokters van de Wereld (DvdW) encounters when providing their services to undocumented migrants and why research regarding health care accessibility is necessary.

1.1 Topic Description/Context

DvdW experiences significant challenges in finding General Practitioners (GPs) who are willing to accept undocumented migrants as their patient. This chapter will explain why GPs are so crucial for undocumented migrants and which challenges DvdW faces when providing their services, creating access to health care for everybody.

1.1.1 Context and rationale for the study

Health care is a tertiary part of the hospitality industry as it provides goods and services to treat patients. Access to health care services is of significant importance to promote and maintain health for all society members. According to Dutch law, health care providers are obligated to provide health care to everybody, as medical care is a fundamental right ('Artikel II-35: De gezondheidszorg', 2004). However, access to health care appears not always to be equally accessible to all people. Marginalized communities, including undocumented migrants, face significant challenges when accessing health care service because of various reasons, including economic, cultural, administrative and legal barriers, together with widespread stigma and systematic discrimination (Lazarus et al., 2020). To provide an optimal service in health care, undocumented migrants may not be excluded.

Recent research has estimated the prevalence of foreign nationals unlawfully living in the Netherlands in 2017-2018, between 22.711 and 58.000 (van der Heijden et al., 2020). Access to health care for undocumented migrants in the Netherlands is complicated for various reasons. Undocumented migrants are afraid to be reported to immigration authorities by health care providers and thus avoid accessing health care facilities (Dorn et al., 2011). Secondly, undocumented migrants are not able to join the national health care insurance system, which leads to decreased accessibility. This is because of the Linking Act (Koppelingswet). The Linking Act of 1998 creates obstacles for undocumented migrants when seeking health care. This law discourages illegal residency in the Netherlands and excludes undocumented migrants from public services, including health care insurance. According to article 122a of the Dutch Health Insurance Act, there is one exception to the Linking Act: the right to medically

necessary health care, all the health care under the basic health insurance. Undocumented migrants are supposed to pay for the medical costs themselves. However, to protect health care providers from unpaid invoices, there is a regulation called the Uninsurable Foreigners (*Regeling onverzekerbare vreemdelingen*). This regulation from the CAK, the public service provider that implements government regulations, ensures that healthcare providers can declare expenses for medically necessary care. All GPs can appeal to this regulation, and the CAK will reimburse a maximum of 80% of the bad debts and 100% for pregnant woman and children.

By providing access to proper health care to everybody, it is possible to prevent and manage diseases, resulting in reducing unnecessary diseases and deaths. DvdW is a medical non-governmental organization that enables excluded individuals and their communities to access health care and advocate universal access to health care. Equal access to health care in the Netherlands starts with general practitioners (GPs). GPs are of enormous importance for everybody in the Netherlands. They are the first point of contact and thus the gatekeepers to the health care system by controlling access to specialized medical care.

1.1.2 Problem description

DvdW notices that it is difficult to find a GP for undocumented migrants in the Netherlands, as many GPs refuse to accept this group as a patient. Patients' refusal may be caused by various reasons, including unwillingness with the GPs, or because the GPs are unfamiliar with the regulations and possibilities regarding health care provision to undocumented migrants. DvdW is building a parallel health care system, mainly in Amsterdam, to ensure undocumented migrants will not be excluded from health care services. Unfortunately, building a parallel system is not the solution for the problem, the poor accessibility to GPs. Every inhabitant of the Netherlands, documented or undocumented, should be registered with a GP to ensure equal access to health care facilities. However, many undocumented migrants do not have a GP and therefore have limited access to health care services. It is essential to know the reason(s) why it is so difficult to have a GP offering their services to undocumented migrants, so the accessibility to health care can be improved and optimized both for the migrant and the health care provider. When GPs are able to improve the quality of their services and thus provide better services to undocumented migrants, DvdW is able to provide a better service to undocumented migrants as well.

1.1.3 Purpose and relevance of the study

The purpose of this research is to provide more insight into the number of undocumented migrants in the Netherlands that GP's see during consultations hours and to clarify which problems GPs might face, so the quality of the services can be improved. Identifying these possible gaps, accessibility and guidance to health care might be improved and optimized for both GPs and undocumented migrants.

The results of this research will be shared with the *Landelijke Huisartsen Vereniging* (LHV) and the Ministry of Health, Welfare and Sports (HWS) to create more insight into the current barriers GPs face in providing their services to undocumented migrants. By sharing the results, DvdW advocates for better access to health care and provides better services for undocumented migrants.

The following paragraphs will provide the reader with a literature review, which summarizes prior research about health care accessibility for undocumented migrants and identifying gaps in the current knowledge. Furthermore, a conceptual model and the problem statement are created, and in line with that, the research questions are determined. The method section outlines the participants, the research design, operationalization, and analysis procedures. After that, the results section provides an overview of the results obtained via the survey. The obtained results will be presented in tables and figures to provide the reader with a correct representation of the numerical data. Subsequently, the discussion and interpretations of the findings in connection with the literature are presented in chapter 5, including the limitations and the general conclusion. Lastly, the final chapter includes recommendations for DvdW and further studies.

1.2 Literature Review

Paragraph 1.2 will demonstrate why the migration crisis is causing increasing demands on health care services and which problems undocumented migrant experience when accessing health care services. Furthermore, inequalities in health care are demonstrated, and the importance of service quality is explained.

1.2.1 The migration crisis and health care

By the end of 2019, the Office of the United Nations High Commissioner for Refugees (UNHCR) states that the highest number of forcibly displaced people ever was recorded since

the Second World War. 79.5 million people were forcibly displaced worldwide because of persecutions, wars, conflicts and violence, and events causing severe public order disturbance (UNHCR, 2020). Gritt et al. state that the number of undocumented migrants in many Western countries is increasing, even though governments are taking measures to control the influx of new immigrants, like affirming rules and regulations to expel undocumented migrants from public-funded health care, as the belief that free health care services may be a condition that drives someone to immigrate (2011). However, there are other more crucial intentions to migrate, and there is no evidence that states that access to health care is a strong reason for migration (Gritt et al., 2011). Increasing demands on national public services, including health care, are increasing and continue to increase because of the ongoing migration wave (Lebano et al., 2020). As the migration wave is not going to stop, undocumented migrants must have equal access to health care to prevent them from the health consequences when not being able to access to health care facilities.

1.2.2 Access to health care and health consequences

Many undocumented migrants fail to access health care services, even though these services are of enormous importance for disease prevention and treatment and care (WHO, 2019). Inequalities in (access to) health care services persist because of legal barriers, language and cultural barrier, lack of knowledge about the health care systems, the financial situation of the undocumented migrant and anxiety among them, and discrimination (Lebano et al., 2020; Woodward et al., 2013). These barriers to health care services create inadequate disease prevention, high infection rates, and delays when accessing health care services, which results in increased health care risks for undocumented migrants (Woodward et al., 2013). Moreover, Teunissen et al. (2014) state that limited access to health care services may disrupt and delay suitable treatment of health care problems by GPs. According to Dorn et al., obstacles to health care services for undocumented migrants are caused by the Linking Act, and because of bureaucratic procedures to obtain reimbursement for medical expenses, which are experienced as demanding and challenging for health care providers (2011). DvdW states that the CAK regulation for uninsurable foreigners is a good regulation, making health care financially accessible for undocumented migrants. However, the organization signals bottlenecks among this regulation, as the undocumented migrant depends on the knowledge and benevolence of the health care provider (2018). The difficulties mentioned above create inequalities in health care accessibility for undocumented migrants.

1.2.3 Inequalities in access to health care

In 2012, Médecins du Monde estimated that 29% of the patients accessing health care in Amsterdam had been denied access by health care providers (Chauvin & Simonnot). A study conducted by Schroevers et al. demonstrated that 69% of undocumented female immigrants accessing health care facilities in the Netherlands reported problems, which vary between institutional obstacles and personal obstacles. Institutional obstacles are barriers established by health care provider, such as financial barriers or refusal of services, and personal obstacles are defined as difficulties experienced by the patient, including lack of information, shame, and fear for bills (2010). A recent study suggests that many undocumented migrants in the Netherlands fail to access health care services because of fear of detection and high costs and because of some health care providers' attitude towards undocumented migrants (Hintjens et al., 2020). A study conducted among detained undocumented migrants in the Netherlands indicates that only 46% of those undocumented migrants consulted a health care provider, and 25% of those seeking care reported refusal of treatment by health care providers (Dorn et al., 2011).

Only 56% of the undocumented woman in the Netherlands are registered with a GP, and nearly all woman registered found their GP via a voluntary support organization (Schroevers et al., 2010). This in line with findings from a study regarding help-seeking behavior and experiences in primary care in the Netherlands, which demonstrates that undocumented migrants primarily found their GP via voluntary support organizations who provided the migrant with information about the process (Teunissen et al., 2014).

Many undocumented migrants are not aware of their rights when seeking health care and thus experiences various barriers. Undocumented migrants who have an own social network or speak the Dutch language experience better access to health care than those who do not have a social network or speak the language, as they have a better understanding of the Dutch health care system (Ombudsman Metropool Amsterdam, 2021). Solving the inequalities in health care may start by making health care providers and undocumented migrants aware of the existing rights regarding health care provision.

1.2.4 The right to health care

According to the United Nation National Assembly article 12, every person has the right to the best possible physical and mental health care (1966). Schroevers et al. indicate that health care providers need to be informed about the rules and regulations regarding health care provision

to undocumented migrants and must recognize that they are obligated to provide health care to everybody, including undocumented migrants (2010). Undocumented migrants face many difficulties when accessing health care services, and health care providers must be aware of these difficulties to contribute to improved care and thus better quality of the health care services (Dorn et al., 2011).

1.2.5 Service delivery

In health care, service quality is defined as the interaction between the patient and the doctor (Tripathi & Siddiqui, 2020). Sabahi-Bidgoli et al. suggest that the quality of health care services is of substantial importance as it has a severe effect on patients' lives and wellbeing (2011). According to Matin et al., the quality of the health care service provided is becoming increasingly important. For that reason, health care providers must reverend the patient's needs and expectations, the service recipient (2016). Health care services are categorized as high involvement services, as there is intensive contact between the health care provider and the patient, which may continue over a long period (Tripathi & Siddiqui, 2020).

In 1985, Parasuraman et al. created the SERVQUAL model, which measures the service's perceived quality by identifying the difference between consumers' expectations and service perceptions. The SERVQUAL model measures perceived services quality with five dimensions: Reliability, Responsiveness, Assurances, Empathy, and Tangibility (Parasuraman et al., 1988). A study conducted by Tripathi & Siddiqui suggests that patients first dimension of importance is Reliability, followed by Assurance, Responsiveness, Tangibility and lastly, Empathy (2020). In the perspective of the patient, Reliability consists of the delivery of health care dependably and transparently. Subsequent, Assurance is primarily perceived in terms of how safe the patient feels while seeking health care. It incorporates the health care providers knowledge, courtesy, and ability to instill trust and confidence in the patient. The next most important dimension is Responsiveness, which includes, from the patient's perspective, the promptness of response and polite and helpful behavior of the health care providers. After that, the service quality in order is the dimension Tangibility, highlighting the importance of hygiene and cleanliness. Lastly, the service quality dimension Empathy incorporates the feeling of being understood by the doctor and the need for personal attention (Tripathi & Siddiqui, 2020; Teshnizi et al., 2018; Parasuraman et al., 1988).

Dorn et al. describe that negative experiences can result in avoidance of health care seeking, and for that reason, good communication skills are crucial. When language barriers

arise, the GP can use a telephonic interpretation service to prevent the patient from a negative experience and provide optimal services (2011). Due to the COVID-19 pandemic, telephone and video consultations are implemented by health care providers to prevent the spread of COVID-19, which may increase access to health care facilities for some individuals. However, Howells et al. suggest that these remote consultations will worsen access to health care for vulnerable social groups and create inequalities in healthcare access (2021).

Research conducted by Veenema et al. state that GPs located in areas with a relatively high number of undocumented migrants are more often appealed to than GPs located in areas where most of the population is insured. The unequal division of undocumented migrants over GPs results in an unequal workload (2009). In 2017, several medicine professors wrote a letter to the Dutch House of Representatives (Tweede Kamer) to express their concerns about decreased accessibility to GPs caused by too many patients, creating excess workload and diminished services. Dutch citizens have, on average, five times per year contact with the GP practice, which are mainly consultations with the GP (Nielen et al., 2020). To summarize, GPs must acknowledge the perceived service's quality from the patient's perspective to improve the service quality delivered, and so health care accessibility for undocumented migrants could be enhanced.

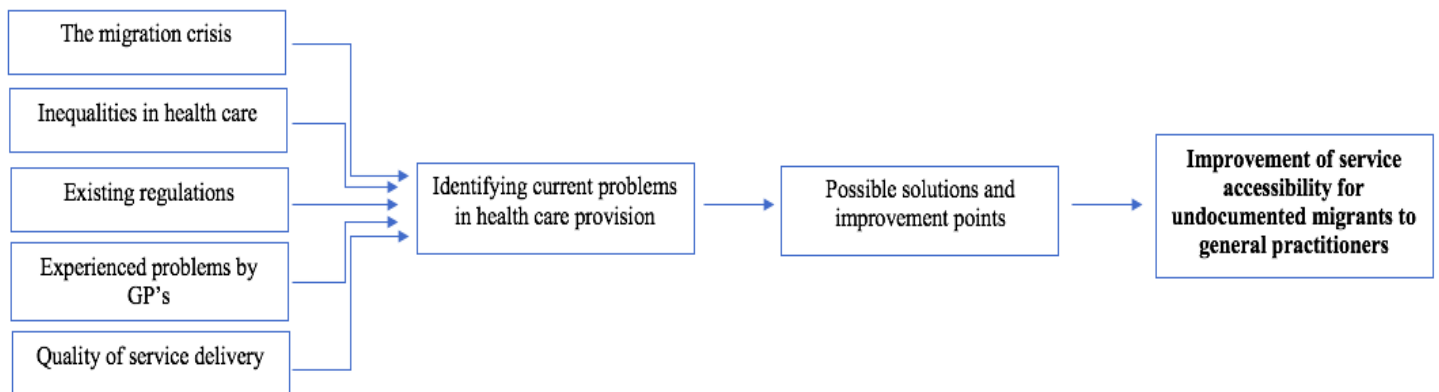
1.2.6 Conclusion

Migration is causing increasing demands on health care services, and many undocumented migrants experience a lack of access to health care services, creating inequalities in health care. Inequalities in health care accessibility have serious health consequences for the migrant. Health care inequalities exist because of legal and economic barriers, lack of knowledge, language and cultural barriers, and attitudes and discrimination, which all form obstacles when accessing health care services. Health care is a universal right, and GPs must be aware that health care inequalities exist, so the GP contribute to improved care for undocumented migrants. Health care services are high involvement services, and therefore GPs must be aware of the service quality perceived by the patient, which can be measured via the SERVQUAL model. By being aware of the perceived service quality delivered, the GP can improve its services, and access to health care could become available for everybody.

1.3 Conceptual Model

The conceptual model presented in **figure 1** illustrates a cause-effect relationship and indicates which variables are of influence on the service accessibility for undocumented migrants to GPs in Amsterdam, the Netherlands.

Figure 1. Conceptual Model



The service accessibility for undocumented migrants to GPs in Amsterdam, the Netherlands, is influenced by several factors. The migration crisis is causing increasing demands on health care facilities, which results in decreased access to health care facilities. Inequalities in access to health care facilities are caused by personal and institutional barriers, resulting in reduced access and service quality. Furthermore, the existing rules and regulations, like the CAK-regulation, are of significant influence on service accessibility. It is important to investigate which problems GPs face. Identifying these difficulties, accessibility and guidance to health care might be improved and optimized for both GPs and undocumented migrants. Lastly, exploring the service delivery's perceived quality from the perspective of the undocumented migrant provides more insight into how the service accessibility to general practitioners could be improved.

1.4 Project Definition

Problem statement:

The problem experienced by DvdW, the purpose of the research and an overview of the available literature, suggests that the current health care accessibility problems are mainly focused on the perspective of the undocumented migrant. Until now, there has been a lack of literature from the perspective of the GP. Therefore, this study aims to identify which problems GPs face when providing health care services to undocumented migrants in Amsterdam, the Netherlands. This study will be investigated using surveys among GPs in Amsterdam to address to following main research question:

How could the service accessibility to general practitioners in Amsterdam, the Netherlands, be improved for undocumented migrants?

Research questions:

1. How is the migration crisis influencing health care accessibility in Amsterdam, the Netherlands?
2. Which inequalities in health care accessibility are existing in Amsterdam, the Netherlands?
3. How are the existing regulations regarding the health care provision to undocumented migrants influencing health care accessibility?
4. Which problems do GPs face when providing health care to undocumented migrants?
5. How could the quality of the service delivery of GPs to undocumented migrants be improved?

2. Method

Chapter two shows what kind of research was conducted and which research instrument were used. Furthermore, a detailed explanation of the data collection method is included, stating how the data was obtained and who participated in the survey. Finally, a description of how the data was analyzed is included.

2.1 The research design

Research is a type of scientific inquiry whose aim is to obtain more knowledge about a particular topic. Data is gathered via quantitative research or qualitative research. Barnham states that, traditionally, quantitative research presents ‘hard’ and ‘factual; data, while qualitative research is described as ‘softer’, providing deeper insight, while being more subjective in its approach. Quantitative research is characterized by “what?” questions, and in contrast, qualitative research is characterized by “why? questions (2015). The author of this report is mainly interested in which difficulties and problems GPs experience while providing health care services to undocumented migrants, thus in the “what?”, and therefore quantitative research is applicable. “The quantitative research study designs are broadly classified either as descriptive versus analytical study designs or as observational versus interventional” (Omair, 2015, p. 153). A descriptive research design is used for describing the characteristics of the sample, and/or attempts to make a sweeping assumption over the findings from the sample being studied to a larger target population (Omair, 2015; Grimes & Schulz, 2002). Only one sample is being studied in descriptive research, while analytical research compares two or more sample groups throughout a period (Omair, 2015; Hedrick et al., 1993). Verhoeven explains observational research as the systematic study of behavior of a group or individual (2016). Interventional research attempt to reconcile differences between two people or groups as part of the study (Thiese, 2014). In this research, behavior is not a point of interest, and therefore observational research is not applicable. Furthermore, the study is only interested in making assumptions over one sample and not comparing two or more samples, which is the case for analytical research and interventional research. Therefore, the author is opting for a descriptive research design to generalize the research sample's findings over a larger target population.

2.2 Instrument

Methods used to collect quantitative data in descriptive research are observations or surveys (Siedlecki, 2020). Systematic observation in scientific research is used to observe the behavior

of small groups or individuals relevant to the study (Verhoeven, 2016). Surveys are used to gather numerical data and are useful when the researcher is concerned with the respondent's perceptions, beliefs, attitudes, or opinions (Verhoeven, 2016; Edmonds & Kennedy, 2017). "The purpose of a survey is to use questionnaires or interviews to collect data from a sample that has been selected to represent a population to which the findings of the data analysis can be generalized" (Gall, Gall, & Borg, 2003, p. 223). The instrument used for this research were cross-sectional surveys to collect insights into the attitudes, perceptions and opinions of the GPs providing health care services to undocumented migrants.

The survey consists of fifteen multiple-choice questions and sixteen open-ended questions. Both multiple-choice questions and open-ended were used to collect numerical data.

The survey was written in Dutch, as all the respondents were Dutch. A translation of the survey to English is added. Both can be found in **appendix 1**.

The reliability of the research was enhanced by standardization which was accomplished via a standard questionnaire. In line with the criteria of Verhoeven (2016), a standard questionnaire was created: the question structure, the question formulation, and possible answers were the same for all the respondents. Furthermore, the formulated questions were logical, and the questions regarding the same subject area were placed in the same section.

The research's internal validity was enhanced through the correct selection of respondents' so that randomization was guaranteed. How the respondents of the survey were selected will be specified in *paragraph 2.3*. This research's external validity was low as the sample was too small as many GP's are experienced an excess workload caused by too many patients and COVID-19, which resulted in few respondents. However, the research results were theoretical generalizable and usable, which means the research was still of help to DvdW.

2.3 Population, Sample, Sampling Method

In Amsterdam, there are a total of 247 GP practices (Zorgkaart Nederland, 2021). These 247 GP practices were known as the research population. To compose a generalization about the research population, a sample must be determined. There are two types of sampling techniques: probability sampling and non-probability sampling. Probability sampling means that the sample size is randomly selected, and non-probability sampling includes non-random selecting participants. In this research, every GP had an equal chance of being selected in the sample, and therefore probability sampling was applicable. Probability sampling knows various types of sampling techniques, including simple random sampling, systematic sampling, stratified

random sampling, cluster sampling, and multi-stage sampling. For this study, multi-stage sampling was chosen. Multi-stage sampling is the process of taking samples in stages, with each step using smaller and smaller sampling units. First, all the GP practices were divided by geographical area, so all parts of Amsterdam were equally represented. This sampling method is called stratified sampling. After this sample had been drawn, again, the stratified sampling technique was applied. GPs from each geographical region were classified as “willing” or “unwilling” to provide their services to undocumented migrants and as “unknown”, meaning the GP might not be familiar with DvdW and the provision of health care services to undocumented migrants. Step three included simple random sampling to select the final sample. Other sampling techniques were not eligible to use as sampling strategies, due to that they do not allow to use multiple sampling methods to sample the target group further down in stages.

Determining the sample size was done via the following formula: $n = p(100-p)z^2/E^2$. N = the required sample size, P = the variance of the population, E = the percentage of maximum error, Z = confidence level (Taherdoost, 2016). The variability is 50%, as Bartlett et al. stated that this will result in maximization of the variance (2001). The margin of error is almost always 5%, and the confidence level varies between 80% and 95% (Twisk, 2016). The author opted a confidence interval of 95%, so the findings of the surveys were less likely to be biased. So, when $P = 50%$, $E = 5%$, and $Z = 95%$, the sample size was determined at 151.

2.4 Procedure / Data collection

Based on the experiences of DvdW, not many GPs will respond to an online survey. The National General Practitioners Association (LHV, 2021) states that most GPs experience excessive workload, partly caused by the COVID-19 pandemic. Therefore, a self-completion survey was distributed to the GPs to increase the responsiveness. Based on the pre-selected list of participants, the author brought the survey to the GP practices and requested, face-to-face, to participate in the survey. COVID-19 measurements were taken into account by practicing good hygiene, maintaining 1,5-meter distance, and wearing a face masks when distributing the surveys.

The data was collected between the 15th of February and the 15th of March. The distribution of the surveys took approximately take one week. The following week, the researcher called every GP practice visited as a reminder that the survey will be picked up the next day and ask if filling out the survey has been successful. In week two, the completed surveys were collected.

If the survey was not completed, the researcher left an envelope, including a postage stamp and return address, and requested to send the survey to when it was completed. From that moment, the researcher waited two weeks for the last surveys to arrive. By distributing the surveys face-to-face, the author created goodwill so the pre-established sample size of 151 could be met.

2.5 Data analysis

This research collected quantitative data via cross-sectional surveys among GPs located in Amsterdam, the Netherlands. The numerical data collected via this questionnaire was analyzed with the use of the software SPSS. SPSS mainly consists of counting and comparing data, analyzing whether the data meets the requirements of specific statistical procedures and choosing a statistical test to make a hypothesis (Vocht, 2016).

A one-way ANOVA was conducted to compare the total number of patients registered in a practices patient database and the number of undocumented migrants registered in the patient database, and to compare the number of undocumented patients registered and how many times these patients are seen on average. Additionally, a Spearman's Correlation Coefficient was used to measure the strength of the relationship between these variables. The significance level used in this research is 10%, as the sample size is small. This means that a significance level of 0.10 indicates a 10% risk of conducting that a difference exists when there is no actual difference. Furthermore, a Chi-Square test was conducted to examine the relationship between the number of undocumented patients registered and the city district. The remaining data was analyzed and presented in frequency figures and tables to provide the reader with a correct representation of the numerical data. Measurements and statistical methods per survey question are outlined in **appendix 2**.

2.6 Ethical considerations

Ethical consideration in research must be universally maintained. Using a survey as a research instrument, informed consent and maintaining scientific integrity are essential parts of the ethical considerations (Hammer, 2017). Informed consent means that all the survey participants have all the information regarding the research, understand the information, and have the option to decline participation (Polit & Beck, 2009). Also, participants had the right not to answer questions. "If questions are not allowed to be skipped, participants may provide false information that is not representative of their specific situation" (Hammer, 2017, p. 157). All the survey questions were appropriate concerning the participants' values. Scientific integrity

was obtained by guaranteeing the privacy of the participants. The survey could be filled out anonymously.

3. Results

Chapter 3 provides an overview of the results obtained via the survey distributed under GPs in Amsterdam, the Netherlands. The survey was distributed under 96 GP practices, and 34 GP practices filled in the survey and took part in this research. The obtained results are presented in tables and figures to provide the reader with a correct representation of the numerical data. The chapter starts by demonstrating how the migration crisis influences health care accessibility in Amsterdam, followed by which inequalities exist. After that, this chapter presents how the existing regulations regarding health care provision influence health care accessibility and which problems GP practices encounter when providing health care services to undocumented migrants. Lastly, this chapter provides an overview of how the service quality could be improved.

3.1 The Influence of the Migration Crisis on Health Care Accessibility

This chapter provides an overview of the results obtained via the survey regarding the influence of the migration crisis on health care accessibility in Amsterdam, the Netherlands. The results are analyzed in SPSS by recording the frequencies of each variable and are presented in frequency distribution tables. Other data is analyzed using an Analysis of Variance (ANOVA) to test if the means significantly differ from each other. Finally, Spearman's Correlation test is used to measure the strength of the relationship between variables.

Table 1 provides an overview of the mean, median, and mode of the total number of patients registered in the GP practices patient database.

Table 1. Total Patient Database

(Measurement: scale) (N=26)

N	Valid	26
	Missing	8
Mean		4662,77
Median		4150,00
Mode		3000

The table indicates that the average number of patients registered in a GP practices patient database is 4663.

Table 2 provides an overview of how many undocumented patients are registered in the GPs practice.

Table 2. Undocumented patients registered in GP practice

(Measurement ordinal) (N=34)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	None	9	26,5	26,5	26,5
	<50	19	55,9	55,9	82,4
	51-100	3	8,8	8,8	91,2
	101-150	1	2,9	2,9	94,1
	151-200	2	5,9	5,9	100,0
	Total	34	100,0	100,0	

The table shows that 26,5% of all the GP practices have no undocumented migrants registered as patients. The majority of the practices (55,9%) have less than 50 undocumented migrants registered as a patient. Very few practices have more than 51 undocumented migrants registered as a patient in the patient database.

A one-way ANOVA test was conducted to compare the effect of the total number of patients registered in a practices patient database on the number of undocumented migrants registered in the patient database. This is presented in **table 3**.

Table 3. Total patient database and number of undocumented patients registered

(Measurement: scale) (N = 25)

	ANOVA				
	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	25334208,9	2	12667104,4	2,518	,103
Within Groups	115696394	23	5030277,99		
Total	14103603	25			

There was a significant effect of the total number of patients registered in a practices patient database on the number of undocumented migrants registered in the patient database at the $p < .10$ level for the three conditions $F(2, 23) = 2,52$, $p = 0,10$.

Spearman's correlation test, displayed in **table 4**, measures the strength of the relationship between the extent of the entire patient database and the number of undocumented patients registered in the patient database.

Table 4. Total patient database and number of undocumented patients registered
(Measurement: Spearman's correlation) (N=26)

		UDM	Total amount patient database
Spearman's rho	UDM	Correlation Coefficient	1,000
			,382
		Sig. (2-tailed)	.
		N	34
	Total amount patient database	Correlation Coefficient	,382
			1,000
		Sig. (2-tailed)	,054
		N	26

Results of Spearman's correlation indicate that there was a significant positive weak to moderate relation between the number of undocumented migrants registered in the GP practices patient database and the entire patient database, $r = 0,38$, $p < 0,10$.

Table 5 provides an overview of how many times per year the registered undocumented patients are seen by the GP.

Table 5. How many times are registered undocumented patients seen?

(Measurement: ordinal) (N = 32)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Less than once a year	9	26,5	28,1	28,1
	Once a year	5	14,7	15,6	43,8
	Half-yearly	6	17,6	18,8	62,5
	Quarterly	6	17,6	18,8	81,3
	Once a month	2	5,9	6,3	87,5
	Less than once a month	2	5,9	6,3	87,5
	Weekly	2	5,9	6,3	100,0
	Total	32	94,1	100,0	
Missing	999	2	5,9		
Total		34	100,0		

The majority of the registered undocumented migrants (28,1%) are seen less than once a year. Subsequently, 15,6% of the GP practices sees these patients once a year, and 18,8% see these patients half-yearly or quarterly. Very few patients are seen once a month or more.

A one-way ANOVA test is conducted to compare the effect of the number of undocumented patients registered in the GPs patient database and how many times these undocumented patients are seen. This is presented in **table 6**.

Table 6. How many times are undocumented migrants seen?

(Measurement: scale, ordinal) (N = 31)

	Sum of Squares	df	Mean Square	F	Sig.
Between groups	33,480	2	16,740	6,791	,004
Within Groups	71,489	29	2,465		
Total	104,969	31			

The one-way ANOVA demonstrate that the effect of the number of undocumented patients registered in the GPs patient database and how many times these undocumented patients are seen as significant, $F(2, 29) = 6,79$, $p = 0,004$.

Spearman's correlation is used to measure the strength of the relationship between the number of undocumented patients registered in the GPs patient database and how many times these undocumented patients are seen, which is shown in **table 7**.

Table 7. How many times are undocumented migrants seen?

(Measurement: ordinal) (N = 32)

		UDM	How many times patients are seen
Spearman's rho	UDM	Correlation Coefficient	1,000
		Sig. (2-tailed)	,552
		N	,001
		34	32
	How many times patients are seen	Correlation Coefficient	,552
		Sig. (2-tailed)	1,000
		N	,001
		32	,001
			32

Results of the Spearman's correlation indicate that there is a significant moderate relationship between the number of undocumented patients registered and how many times per year these patients are seen, $r = 0,55$, $p < 0,10$.

How many times undocumented migrants are seen as passer-by by GP practices is presented in **table 8**.

Table 8. Undocumented migrants seen as passer-by

(Measurement: ordinal) (N = 34)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	13	38,2	39,4	39,4
	1 to 10	18	52,9	54,5	93,9
	11 to 25	2	5,9	6,1	100,0
	Total	33	9,1	100,0	
Missing	999	1	2,9		
Total		34	100,0		

Most GP practices (54,5%) see one to ten undocumented migrants as a passer-by per month, followed by 39,4% of the practices that do not see any undocumented migrants as passer-by.

The crosstab, presented in **table 9**, summarizes the relationship between the number of undocumented migrants registered with a GP practice and in which city district of Amsterdam the patients are registered.

Table 9. City district and undocumented migrants registered

(Measurement: scale, nominal) (N = 34)

			None	<50	51-200	Total
Postal code area	Centrum	Count	1	5	2	8
		% within postal code area	12,5%	62,5%	25,0%	100%
	Zuid-Oost	Count	2	2	2	6
		% within postal code area	33,3%	33,3%	33,3%	100%
	Zuid	Count	3	6	1	10
		% within postal code area	30,0%	60,0%	10,0%	100,0%

Oost	Count		1	1	1	3
	% within postal code area		33,3%	33,3%	33,3%	100,0%
Nieuw-West	Count		2	3	0	5
	% within postal code area		40,0%	60,0%	0,0%	100,0%
Noord	Count		0	2	0	2
	% within postal code area		0,0%	100,0%	0,0%	100,0%
Total	Count		9	19	6	34
	% within postal code area		26,5%	55,9%	17,6%	100,0%

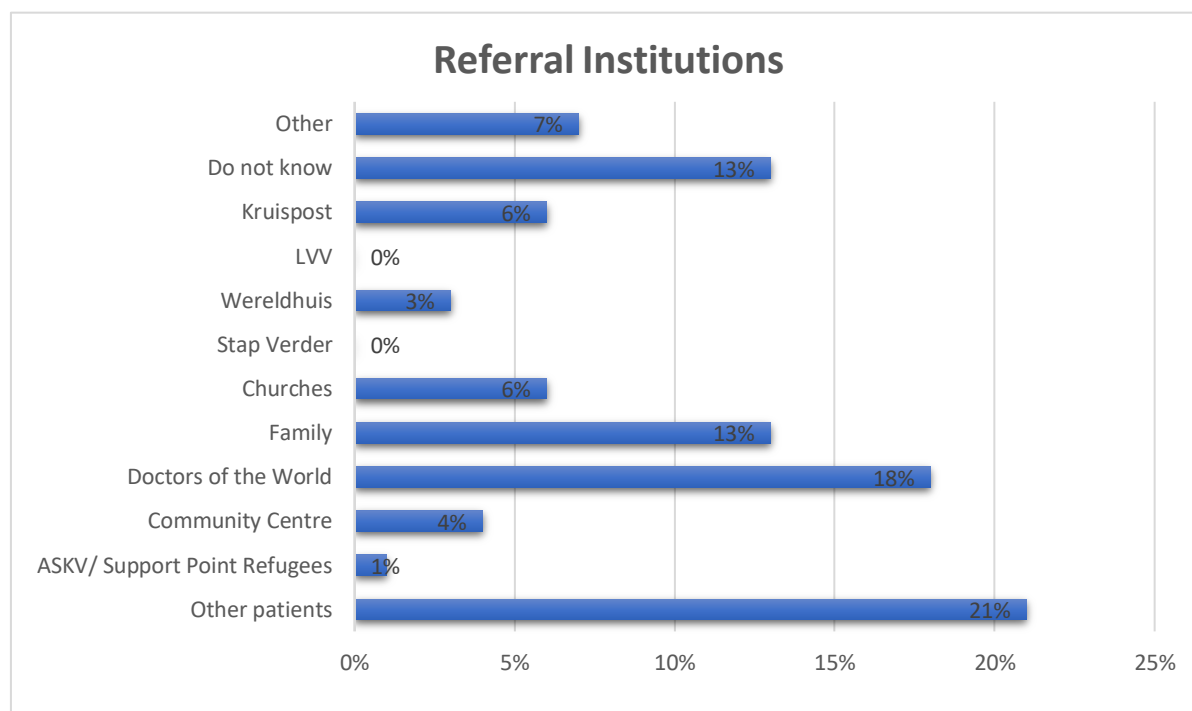
Most GP practices in city district Centrum have less than 50 undocumented migrants registered as a patient. There is an equal distribution in district Zuid-Oost, where 33,3% does not have any undocumented migrants registered, 33,3% has less than 50 undocumented migrants registered as a patient, and again, 33,3% of the practices have between 51 and 200 undocumented migrants registered as a patient. Thus, the minority of the registered undocumented patients are located in district Oost and Noord, and the majority in district Zuid and Centrum.

A chi-square test of independence revealed no significant association between the number of undocumented migrants registered with a GP practice and in which city district of Amsterdam the patients are registered, $X^2(10, N = 34) = .6.36, p = .78$. The chi-square test is presented in **appendix 3**.

Figure 2 provides an overview via which institutions undocumented migrants are referred by to the GP practice.

Figure 2. Referral Institutions

(Measurement: nominal) (N = 30)



Most notable, 21% of the registered undocumented patients found the GP practices via other patients and 13% via family. Subsequently, 18% of the undocumented patients found their GP via Doctors of the World.

3.2 Inequalities in Health Care Accessibility

This paragraph provides an overview of the results regarding the existing inequalities in health care accessibility in Amsterdam. The results are analyzed by recording frequencies of the variables and are presented in frequency distribution tables and figures.

Table 10 provides an overview of how many GP practices decide to refuse an undocumented migrant as a patient or a passer-by.

Table 10. Refusal of undocumented migrants as patient or passer-by

(Measurement: nominal) (N = 34)

	Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1	2,9	2,9	2,9
No	19	55,9	55,9	58,8
Yes	14	41,2	41,2	100

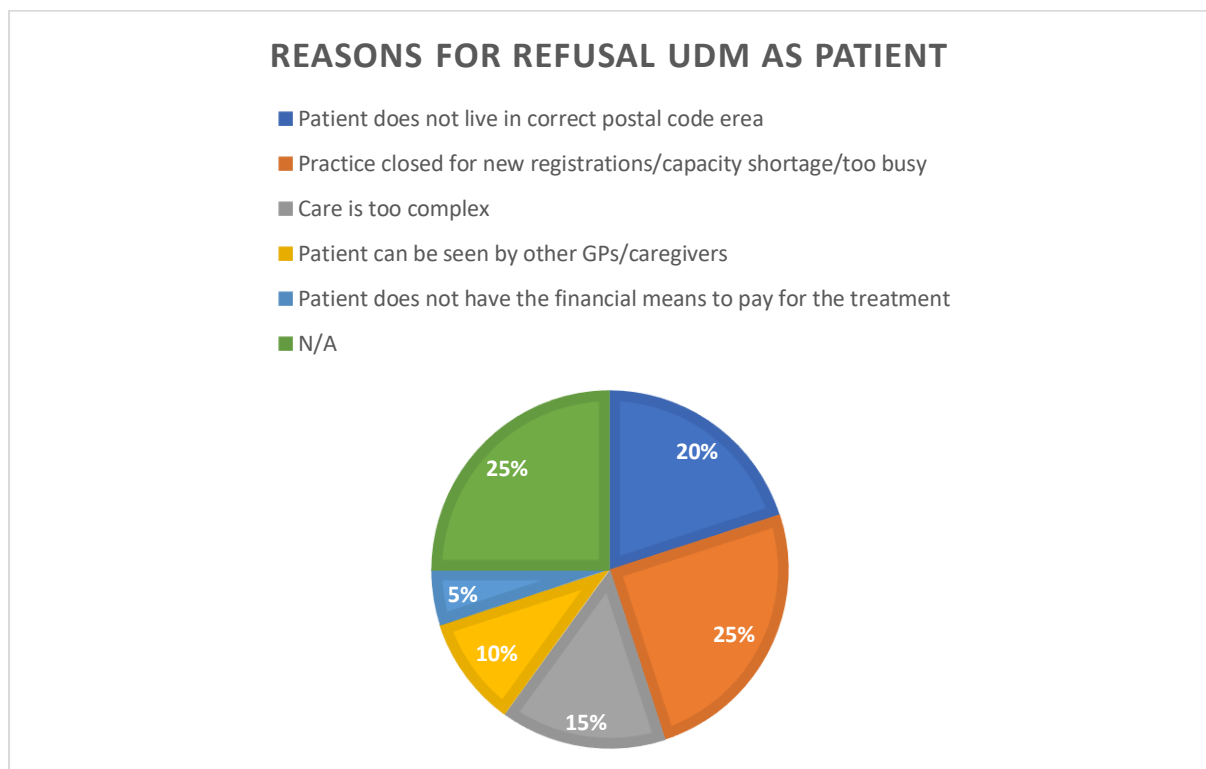
Total	34	100,0	100,0
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The table shows that 55,9% of the GP practices never refuses an undocumented migrant as a patient or passer-by. In comparison, 41,2% of the practices do sometimes refuses undocumented migrants as a patient or passer-by.

The pie chart displayed in **figure 3** shows which reasons GP practices give when they refuse to accept an undocumented migrant as a patient.

Figure 3. Reasons for refusal UDM as patient

(Measurement: nominal) (N = 17)

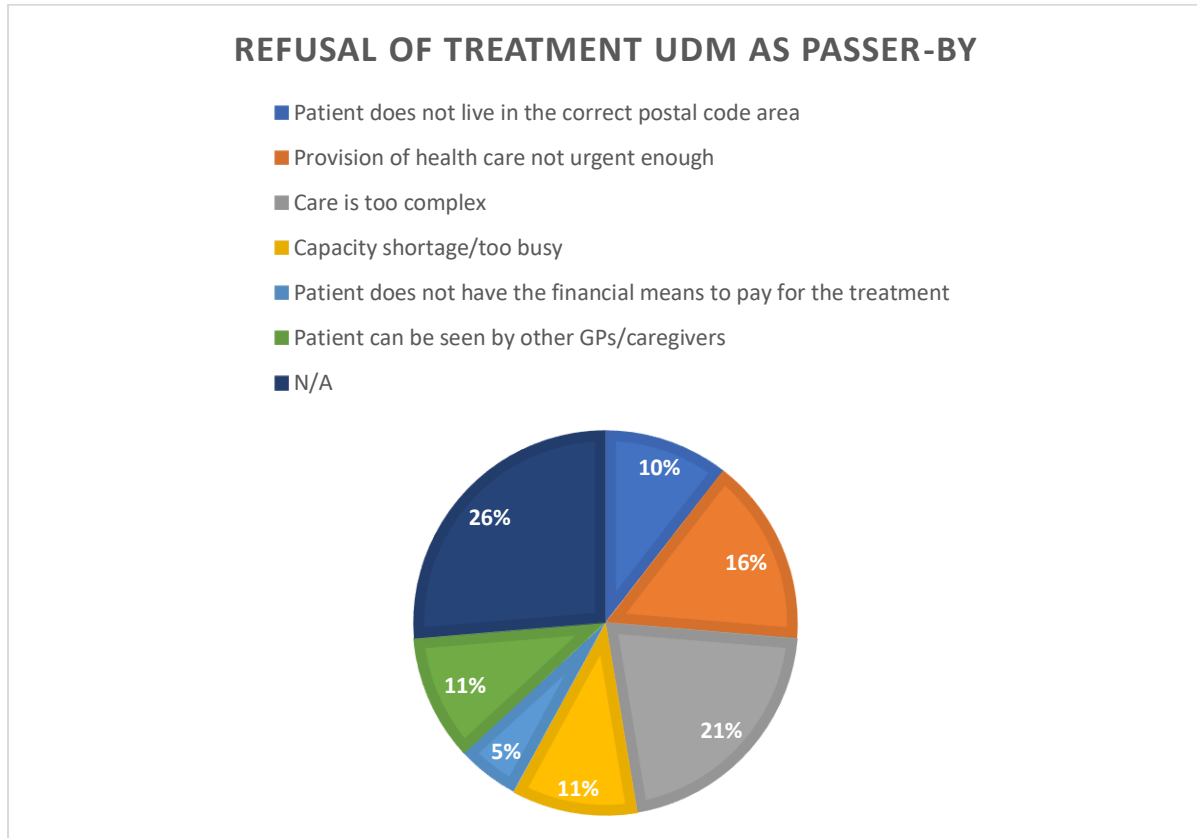


25% of the GP practices state that the practice is closed for new patients because of capacity shortage or it is already too busy in the GP practice. Another 25% of the GP practices do not accept undocumented migrants as patients because the health care which must be provided is too complex. Additionally, 20% of the GP practices do not accept undocumented migrants as a patient because they do not live in the correct postal code area.

Reasons given for refusal by GP practices to treatment to a passer-by are displayed in **figure 4**.

Figure 4. Reasons for refusal treatment UMD as passer-by

(Measurement: nominal) (N = 15)



The most given reason by GP practices for the refusal of treatment to undocumented patients as a passer-by is that the health care which must be provided is too complex (21%). Another significant reason, given by 16% of the GP practices, is that the provision of health care is not urgent enough. Still, 5% of the GP practices refuse to provide treatment to undocumented migrants as a passer-by because the patient does not have the financial means to pay for the treatment.

Table 11 indicates how many GP practices apply a maximum to the number of undocumented migrants who can register in the practice.

Table 11. Maximum to number of undocumented migrants register as patient

(Measurement: nominal) (N = 32)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A	1	2,9	3,1	3,1
	No	25	73,5	78,1	81,3
	Yes	6	17,6	18,8	100,0
	Total	32	94,1	100,0	
Missing	999	2	5,9		
Total		34	100,0		

78,1% of the GP practices state that they do not apply a maximum to the number of undocumented migrants who can register as patients in their practice, where 18,8% of the GP practices use a maximum to the number of undocumented migrants who do not can register as a patient. From the six respondents who stated to apply a maximum to the number of undocumented migrants who can register as patients in the practices patient database, five respondents answered what this maximum amount is. One practice does not accept any undocumented migrant as patients, and another practice accepts one undocumented patient per year. A different practice stated to accept “minimum” undocumented patients per year. Lastly, one practice admits five undocumented patients per year, where another practice allows ten undocumented patients per year.

Table 12 presents how many GP practices charge a registration fee to undocumented migrants who register as a patient in the GP practice.

Table 12. Charging registration fee

(Measurement: nominal) (N = 34)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	33	97,1	100,0	100,0
Missing	999	1	2,9		
Total		34	100,0		

The table indicates that 100% of the GP practices do not charge a registration fee to undocumented migrants who register as patients in the GP practice.

Table 13 presents an overview of how often a consultation fee for treatment is charged to undocumented migrants.

Table 13. Charging consultation fee

(Measurement: nominal) (N = 28)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Always	10	29,4	35,7	35,7
	Never	10	29,4	35,7	71,4
	Sometimes	8	23,5	28,6	100,0
	Total	28	82,4	100,0	
Missing	999	6	17,6		
Total		34	100,0		

The table indicates that 35,7% of all GP practices always charge a consultation fee to undocumented migrants, and contrary, 35,7% of all GP practices never charges a consultation fee to undocumented migrants.

Table 14 provides an overview of the consultation fee GP practices charge to undocumented migrants for treatment.

Table 14. Prices consultation fee

(Measurement: scale) (N = 19)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	20% of total consult	1	2,9	5,3	5,3
	CAK	4	11,8	21,1	26,3
	Depends on the type/duration of consult	1	2,9	5,3	31,6

	Double passer-by rate	1	2,9	5,3	36,8
	Normal rate	4	11,8	21,1	57,9
	Normal rate + € 2, -	1	2,9	5,3	63,2
	Passer-by rate	6	17,6	31,6	94,7
	Passer-by rate + reception costs	1	2,9	5,3	100,0
	Total	19	55,9	100,0	
Missing	999	15	44,1		
Total		34	100,0		

31,6% of the GP practices charge a passer-by rate for a consult for undocumented migrants, and 21,1% of the practices charge a normal rate. Another 21,1% sends the bill, amount unknown, directly to the CAK.

3.3 The Influence of the Existing Regulations on Health Care Accessibility

The most common regulation regarding health care provision to undocumented migrants is the CAK regulation. This paragraph provides an overview of the results obtained via the survey regarding the influence of the existing rules on health care provision to undocumented migrants. The results are analyzed in SPSS by frequencies and presented in frequency tables.

Table 15 presents an overview of how many GP practices are familiar with the CAK regulation.

Table 15. Familiar with CAK regulation

(Measurement: nominal) (N = 33)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	No	2	5,9	6,1	6,1
	Yes	31	91,2	93,9	100,0
	Total	33	97,1	100,0	
Missing	999	1	2,9		
Total		34	100,0		

93,9% of all GP practices are familiar with the CAK regulation, and 6,1% of the GP practices are not familiar with the CAK regulation.

Table 16 indicates if GP practices would like to receive more information about the CAK regulation.

Table 16. More information CAK regulation requested

(Measurement: nominal) (N = 13)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A	1	2,9	7,7	7,7
	No	9	26,5	69,2	76,9
	Yes	3	8,8	23,1	
	Total	13	38,2	100,0	
Missing	999	21	61,8		
Total		34	100,0		

69,2% of the GP practices would not like to receive more information about the CAK regulation, while 23,1% of the GP practices do like to receive more information regarding the CAK regulation.

Frequency **table 17** provides an overview of which reasons GP practices give for not using the CAK regulation.

Table 17. Reasons for not using CAK regulation

(Measurement: nominal) (N = 11)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Alternative methods available	1	2,9	9,1	9,1
	Bureaucratic	1	2,9	9,1	18,2

	Not working with UDM	8	23,5	72,7	90,9
	Time consuming	1	2,9	9,1	100,0
	Total	11	32,4	100,0	
Missing	999	23	67,6		
Total		34	100,0		

Most GP practices state not to use the CAK regulation because they are not working with undocumented migrants (72,7%). Other reasons not to use the CAK regulation is because there are alternative methods available, the regulation is too bureaucratic, or because using the CAK regulation is highly time-consuming.

Some GP practices face problems when making use of the CAK regulation. The problems GP practices encounter when making use of the CAK regulation are outlined in **table 18**.

Table 18. Problems CAK regulation

(Measurement: nominal) (N = 19)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Bureaucratic	4	11,8	21,1	21,1
	Difficult procedures	1	2,9	5,3	26,3
	N/A	4	11,8	21,1	47,4
	No problems	9	26,5	47,4	94,7
	Payment takes too long	1	2,9	5,3	100,0
	Total	19	55,9	100,0	
Missing	999	15	44,1		
Total		34	100,0		

47,4% of the GP practices state they do not experience problems when using the CAK regulation. However, 21,1% declares that the procedure is too bureaucratic, 5,3% thinks it's a complicated procedure, and another 5,3% declares the payment takes too long.

3.4 Problems Experienced by GP Practices

This paragraph outlines which problems GP practices face when providing health care services to undocumented migrants. A distinction between financial and non-financial problems is made. The results are analyzed in SPSS by measuring frequencies, and the results are presented in frequency tables.

Table 19 indicates how many times per month it occurs that an undocumented migrant cannot pay (a part of) the bill.

Table 19. Undocumented migrant not able to pay the bill

(Measurement: ordinal) (N = 22)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1 to 10 times per month	2	5,9	9,1	9,1
	Never	20	58,8	90,9	100,0
	Total	22	64,7	100,0	
Missing	999	12	35,3		
Total		34	100,0		

According to this research, 90,9% of the GP practices never experience a situation where the undocumented migrant cannot pay the bill, and 9,1% of the GP practices encounter a (partly) unpaid bill once to ten times per month.

The procedure GP practices maintain when the undocumented migrant is not able to pay the bill, or part of the bill, are presented in **table 20**.

Table 20. Procedure when patient is not able to pay the bill

(Measurement: nominal) (N = 18)

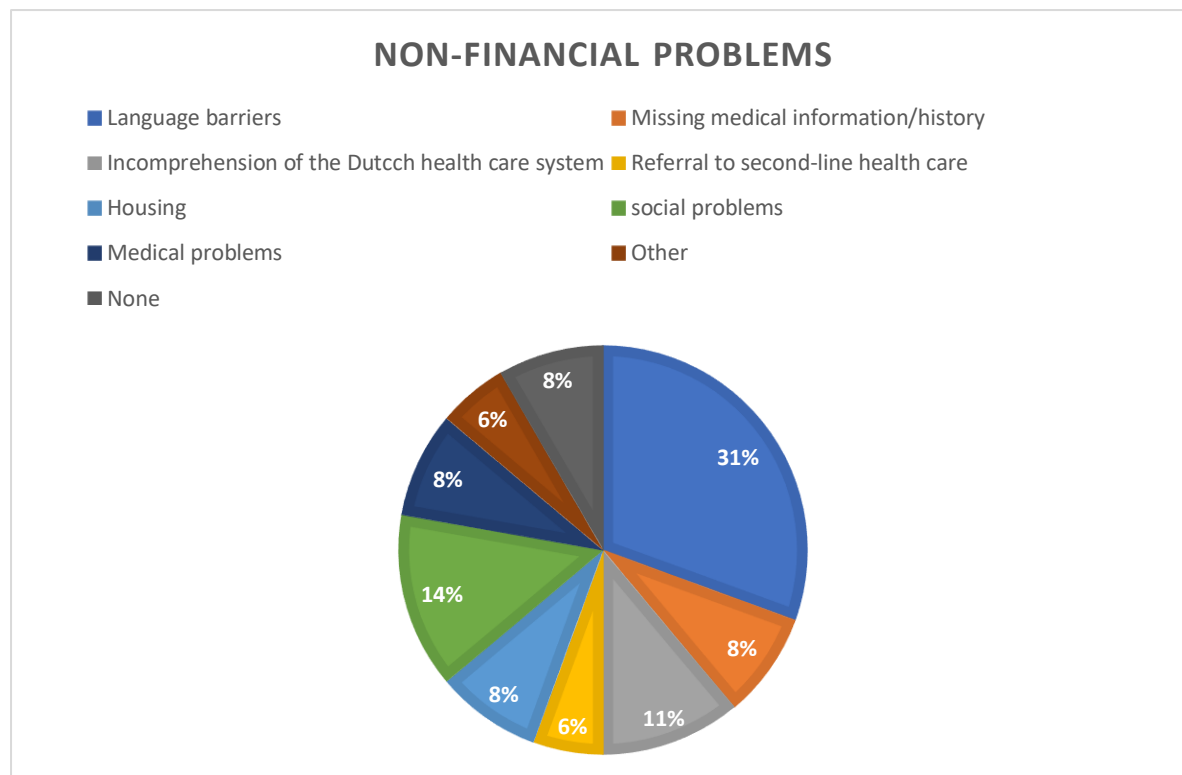
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	CAK	12	35,3	66,7	66,7
	GGD	1	2,9	5,6	72,2
	No procedure	2	5,9	11,1	83,3
	Waive charges	3	8,8	16,7	100,0
	Total	18	52,9	100,0	
Missing	999	16	47,1		
Total		34	100,0		

66,7% sends the bill directly to the CAK, and 11,1% states they have no procedures regarding unpaid invoices. Lastly, 16,7% of all GP practices waives the charges when an undocumented patient is not able to pay (a part of) the bill.

Figure 5 provides an overview of which non-financial problems GP practices encounter.

Figure 5. Non-financial problems

(Measurement: nominal) (N = 23)



Most GP practices, 31%, experience language barriers as a significant problem when providing health care services to undocumented migrants. Another significant problem faced by 14% of the GP practices is social problems when providing health care services to undocumented migrants.

The accessibility to second-line health care is analyzed in frequency **table 27**, indicating how often GP practices encounter problems when referring undocumented migrants to second-line health care facilities.

Table 21. Frequency of referring problems to second-line health care

(Measurement: ordinal) (N = 28)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Never	11	32,4	39,3	39,3
	Regular	6	17,6	21,4	60,7
	Sometimes	11	32,4	39,3	100,0

	Total	28	82,4
Missing	999	6	17,6
Total		34	100,0

39,3% of the GP practices declare never to experience problems, and 21,4% states to experience problems regularly. Lastly, 39,3% of the GP practices sometimes encounter problems when referring undocumented migrants to second-line health care facilities.

Table 22 indicates what percentage of the GP practices experience the accessibility to the second-line health care as a problem.

Table 22. Accessibility to second-line health care: problem or no problem?

(Measurement: nominal) (N = 20)

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	N/A	1	2,9	5,0	5,0
	No	13	38,2	65,0	70,0
	Yes	6	17,6	30,0	100,0
	Total	20	58,8	100,0	
Missing	999	14	41,2		
Total		34	100,0		

30% of the GP practices experience the accessibility to the second-line health care for undocumented migrants as a problem, while 65% of the GP practices do not encounter any problems. Only nine respondents explained their answer. One respondent state that it does experience the accessibility to second-line health care as a problem; however, the respondent does not experience an increase in this problem. Other answers are:

- “More language problems.”
- “Harder to refer”
- “It’s a problem.”
- “Costs”
- “Better arranged than two/three years ago.”
- “Resistance”

- “Good regulation”
- “No increase, but unfamiliarity with (contracted) hospitals and specialists.”

3.5 Improvement of Service Quality

This paragraph provides an overview of the results regarding the improvements of the service quality so the survey participants can improve health care accessibility. The results are analyzed by frequency tables, describing the number of occurrences of a variable.

Table 23 indicates if GP practices believe the troublesome health care accessibility is a collective problem or a problem of the practice itself.

Table 23. Health care accessibility: collective or individual problem?

(Measurement: nominal) (N = 16)

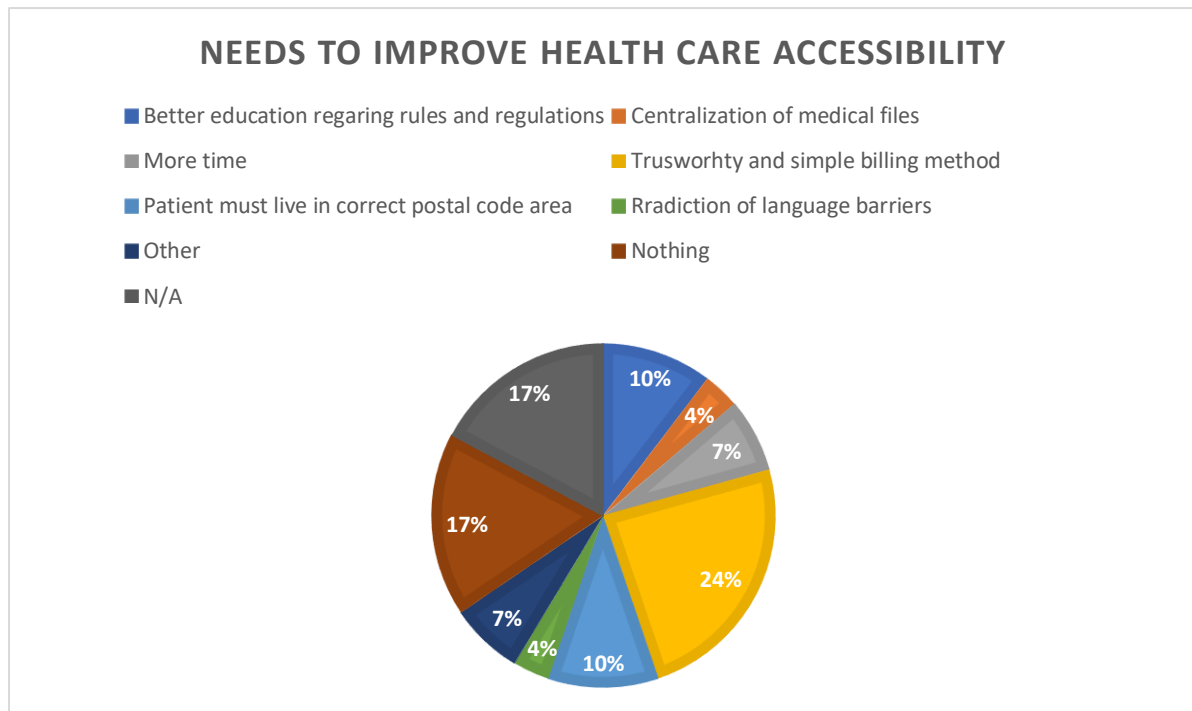
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Both	1	2,9	6,3	6,3
	Collective	14	41,2	87,5	93,8
	N/A	1	2,9	6,3	100,0
	Total	16	47,1	100,0	
Missing	999	18	52,9		
Total		34	100,0		

87,5% of all GP practices believe that the accessibility to health care facilities for undocumented migrants is a collective problem. Only 6,3% of the GPs state that the accessibility to health care facilities for undocumented migrants is a problem of both collective and the practice.

What GP practices need to improve health care accessibility and thus let undocumented migrants register as patients in the practice's database is displayed in **figure 6**.

Figure 6. Needs to improve health care accessibility

(Measurement: nominal) (N = 26)



24% of the GP practices need a trustworthy and simplified billing system, and 17% of the GP practices need nothing to improve health care accessibility for undocumented migrants. Other improvement needs are that the patient must live in the same postal code area (10%), better education regarding the rules and regulations (10%), centralization of medical files (4%), and eradication of language barriers (4%).

4. Discussion

Chapter 4 includes the discussion and interpretation of the results presented in chapter 3. Furthermore, the limitations that might influence the outcomes of this study are addressed. Moreover, a general conclusion is given related to the Problem Statement. Lastly, the author reflects on personal learning and experiences during the research.

4.1 Discussion and Interpretation of the Results

The purpose of this paragraph is to interpret and describe the findings in connection with the existing literature.

4.1.1 Migration Crisis

This subparagraph intends to answer the question “How is the migration crisis influencing health care accessibility in Amsterdam, the Netherlands?”. This question will be answered by presenting the most significant results.

This study demonstrates that 73,5% of the GP practices have undocumented migrants registered as a patient. The majority of these practices, 55,9%, have less than 50 undocumented migrants registered as a patient. 43,7% of the GP practices who have undocumented migrants registered as a patient sees this group less than once a year or once a year, and 37,6% sees undocumented migrants half-yearly to quarterly. Additionally, the data suggest that a significant part of the GP practices, 54,5%, sees one to ten undocumented migrants as passers-by each month. When undocumented migrants access a GP practice, they are most of the time referred to the practice by voluntary support organizations (28%), followed by other patients (21%) and family (13%).

On average, the GP practices patient database consists of 4663 patients, including undocumented migrants. The majority of the practices have less than 50 undocumented migrants registered, and none of the practices in Amsterdam has more than 200 undocumented migrants registered as a patient. So, compared to the entire patient database, the number of undocumented migrants registered is minimal. Most of the undocumented migrants visit the GP practice less than once a year, once a year, half-yearly or quarterly. This corresponds to the health-seeking behavior of Dutch citizens, who have around five times per year contact with their GP (Nielen et al., 2020). Most undocumented migrants (32%) find their GP practice via voluntary support organizations like DvdW or other patients and family. This is in line with the literature, which states that undocumented migrants primarily find

their GP via voluntary support organization (Teunissen et al., 2014). Furthermore, the literature states that migrants who have their own social network experience better health care accessibility (Ombudsman Metropool Amsterdam, 2021). The data from this study support this theory.

To answer the question of this paragraph, when evaluating how many patients are registered in comparison to the entire patient database and how often these patients are seen, the migration crisis should not influence the accessibility to GP practices and thus health care. However, as many patients are not registered with a GP and visit the practice as a passer-by, it suggests that undocumented migrants are not always welcome to register as a patient, and thus there is decreased health care accessibility. Nevertheless, there is no data available of how many Dutch inhabitants visit a GP as a passer-by.

4.1.2 Inequalities in Health Care Services

This subparagraph demonstrates which inequalities in health care accessibility exist in Amsterdam, the Netherlands. 41,2% of the GP practices decide to sometimes refuse an undocumented migrant as a patient or passer-by. Most of the arguments given for the refusal apply to both undocumented migrants and Dutch nationals. However, 15% of the GP practices refuse undocumented migrants as a patient because the care is too complex. Another 5% refuses to accept undocumented migrants as a patient because the patient does not have the financial means to pay for the treatment. Reasons for refusing treatment of a passer-by are again applicable for both undocumented migrants and Dutch nationals. Nevertheless, in this case, 21% of the GP practices refuse to treat undocumented migrants as passer-by because the care is too complex. And again, 5% of the GP practices refuse to treat undocumented migrants as passer-by because the patient does not have the financial means to pay for the treatment. Furthermore, the results of this study indicate that 18,8% of the GP practices apply a maximum to the number of undocumented migrants who can register as a patient. One practice declares not to accept any undocumented migrants as a patient. The maximum number of the other practices varies between “minimal”, one, five, and ten undocumented patients per year. None of the GP practices charges a registration fee to undocumented migrants. 35,7% of the GP practices do never charge a consultation fee to undocumented migrants, and 28,6% sometimes charge a registration fee to undocumented migrants. The amount of the registration fee varies. 21,1% of the GP practices charge a regular rate to undocumented migrants. Another 21,1% does not charge any fee and sends the bill directly to the CAK, and 30% charges a passer-by rate to registered undocumented migrants.

The results support the claim of the WHO, stating that many undocumented migrants fail to access health care services (2019) and the finding of Chauvin and Simonnot. They say that health care providers had denied 29% of the patients accessing health care in Amsterdam (2012). The argument that the patients do not have the financial means to pay for treatment cannot be a reason to deny access to health care to this group. Undocumented migrants are supposed to pay for the medical costs themselves. However, to protect health care providers from unpaid invoices, there is the CAK regulation, which ensures that healthcare providers can declare expenses for medically necessary care ('Artikel II-35: De gezondheidszorg', 2004). Thus, health care providers, like GPs, can provide health care to undocumented migrants who do not have the financial means to pay for the treatment. This analysis supports the theory of Schroevers et al. that health care providers must be informed about rules and regulations regarding health care provision to undocumented migrants (2010) so that inequalities in health care access can disappear.

Remarkably, 35,7% of the GP practices do never charge a consultation fee to undocumented migrants. Another 28,6% sometimes charges a consultation fee to undocumented migrants, as the migrants are supposed to pay for the medical costs themselves. This indicates that GP practices are not fully aware of the CAK regulation, as undocumented migrants are supposed to pay for the medical expenses themselves. When a consultation fee is charged to the patient, only 21,1% of the GP practices charge a normal rate of €10,51. 31,6% of the GP practices charges a passer-by rate of €30,91 to registered undocumented migrant, which is a significant difference compared to the price regular patients have to pay for a consult, which is the normal rate of €10,51. By charging a higher fee to undocumented migrants than usual, the GP practice creates institutional obstacles. This theory is supported by Schroevers, who states that institutional obstacles are barriers created by health care providers, such as financial barriers or refusal of services (2010).

To summarize, inequalities in health care accessibility in Amsterdam exist as a part of the GP practices intentionally denies access to health care to undocumented migrants by applying a maximum to the number of undocumented migrants who can register as a patient. Furthermore, arguments given for refusal could be prevented by better informing health care providers about their obligations and providing more information regarding the rules and regulations concerning health care providers to undocumented migrants to avoid accessibility barriers to GP practices. Lastly, inequalities are established by not charging the regular consultation fee to undocumented migrants but a higher one.

4.1.3 Existing Regulations

This subparagraph outlines how the existing regulations regarding health care provision to undocumented migrants influence health care accessibility in Amsterdam, the Netherlands. The current rules mainly consist of the CAK regulation, ensuring that healthcare providers can declare expenses for medically necessary care provided to undocumented migrants.

This study demonstrates that 93,9% of the GP practices are familiar with the CAK regulation, and only 6,1% of the GP practices are unfamiliar with the CAK regulation. However, 23,1% of the GP practices would like to receive more information about the CAK regulation, which suggest that the regulation is not clear to all health care providers. When GP practices do not work with the CAK regulation, it is mainly because they do not have any undocumented migrants registered as a patient. Other reasons for not using the CAK regulation is because the regulation is too bureaucratic or making use of the regulation is too time-consuming. When analyzing which problems GP practices experience, 47,4% of the GPs does not experience any problems with the CAK regulation. However, more than half of the GP practices still experience problems when making use of the CAK regulation. 21,1% states that the procedure is too bureaucratic, 5,3% thinks it is a complex procedure, and another 5,3% thinks the reimbursement of the costs takes too long. This analysis supports the theory of DvdW, which states that the CAK regulation for uninsurable foreigners is reasonable. However, there are still obstacles as the undocumented migrant depends on the knowledge and benevolence of the health care provider (2018). Other literature supports these findings as well, as Dorn et al. state that obstacles to health care services for undocumented migrants are, among others, caused by bureaucratic procedures to obtain reimbursement for medical expenses, which are experienced as demanding and challenging for health care providers (2011).

To conclude, the existing regulations regarding health care provision to undocumented migrants does somehow influence the accessibility to health care. Still, approximately a quarter of the GP practices would like to receive more information about the CAK regulation, suggesting the regulation is not clear enough. The difficulties experienced when making use of CAK regulation are not an apparent reason for refusal. However, there is still a refusal of treatment to undocumented migrants because they do not have the financial means to pay for the treatment. This will not happen if the GP practice has more understanding about the existing regulations, as the CAK regulation exists to protect health care providers from unpaid invoices and make health care accessible to undocumented migrants who do not have the financial means to pay for the treatment ('Artikel II-35: De gezondheidszorg', 2004).

4.1.4 Problems Experienced by GP practices

This subparagraph provides an overview of the results regarding GP practices' problems when providing health care services to undocumented migrants.

A significant result is that only 8% of the GP practices do not experience any problems when providing health care services to undocumented migrants. Most GP practices (31%) experienced language barriers as a significant problem when providing health care services to undocumented migrants. Other difficulties experienced when providing health care services to undocumented migrants include social problems, incomprehension of the Dutch health care system by undocumented migrants, medical problems, housing, and missing medical history. Dorn et al. state that when language barriers arise, the health care provider can use a telephonic interpretation service to prevent the patient from a negative experience and provide optimal service (2011). In Amsterdam, GP practices can use the telephonic interpretation service via the Achterstands Ondersteunings Fonds (AOF) for free so that health care services will be accessible to everyone. In addition to that, the language barriers, which are frequently given a reason as problems when treating undocumented patients, can be reduced. As the language barriers are still the most common problem when providing health care services to undocumented migrants, it indicates that GP practices are not aware of the telephonic interpretation services.

The results from this study indicate that 9,1% of the GP practices encounter a (partly) unpaid bill once to ten times per month, and 90,9% of the GP practices never experience a situation where the undocumented migrant is not able to pay the bill. When an undocumented patient cannot pay the bill for the treatment, 66,7% of the GP practices send the invoice to the CAK. However still, 16,7% of the GP practices waive the charges and pay for the treatment themselves. Even though it does not happen often, it indicates again that not all GP practices fully understand the CAK regulation and, therefore, still refuse treatment to undocumented migrants because of financial reasons.

When analyzing referral problems to second-line health care, 30% of the GP practices think accessibility to second-line health care is a problem. 21,4% of the GP practices state to regularly experience referral problems to second-line health care, and 39,3% sometimes experience referral problems. Teunissen et al. suggests that limited access to health care services may disrupt and delay suitable treatment of health care problems (2014).

To conclude, GP practices mainly experience problems when providing health care services to undocumented migrants. Language barriers are the most common problem when providing health care services, even though there is already a solution for this problem. The

referral to second-line health care facilities is experienced as a significant problem, with increased health care risks for undocumented migrants as a consequence.

4.1.5 Quality of Service Delivery

This subparagraph intends to answer the question, “How could the quality of the service delivery of GPs to undocumented migrants be improved?”.

This study indicates that 87,5% of the GP practices think the accessibility to health care is a collective problem and not of the GP practice itself. This means that, for example, the Ministry of Health, Welfare and Sports, or the National General Practitioners Association (LHV), should be responsible for resolving health care accessibility problems for undocumented migrants. Most GP practices (24%) need a trustworthy and simplified billing system to receive reimbursement for medical expenses. Another 10% of the practices state that the patient must live in the same postal code area. Other needs include better education regarding the rules and regulations, more time to treat undocumented migrants, centralization of medical files, and additionally, GP practices require eradication of language barriers. Research conducted by Veenema et al. suggests that GPs located in areas with a relatively high number of undocumented migrants are more often appealed to than GPs situated in areas where most of the population is insured. The unequal division of undocumented migrants over GPs results in an unequal workload (2009). Furthermore, the literature indicates decreased accessibility to GPs caused by too many patients, creating excess workload and diminished services (Nederlands Huisartsen Genootschap, 2017).

The CAK is the public service provider that implements government regulations and is part of the Ministry of Health, Welfare and Sports. So, a trustworthy and simplified billing system must be created or improved by the Ministry of Health, Welfare and Sports. The GP practices can provide better services to undocumented migrants.

These are complex problems that a GP practice cannot solve by itself, and therefore, the interference of the Ministry of Health, Welfare and Sports, and/or LHV is necessary, like requested by 40% of the GP practices. Literature suggests that demand for health care is increasing and will continue to increase because of the continuous migration wave (Lebano et al., 2020).

So, suppose there is a trustworthy and simplified billing system. In that case, patients are equally divided over GP practices in the correct postal code area, eradication of language barriers, and better education regarding health care provision to undocumented migrants and

GPs, the quality of the service delivery of GPs to undocumented migrants can be improved, and health care accessibility for undocumented migrants will increase.

4.2 Limitations

The COVID-19 pandemic caused major pressure on health care facilities and an excessive workload on GPs. As this research was conducted during the COVID-19 pandemic, it resulted in limited access to respondents. Therefore, the sample size used in this study is small, and thus it is difficult to generalize over the results. Nevertheless, still 34 practices filled in the survey which is very good. Especially because earlier research conducted by DvdW on general practitioners, nobody responded to the survey. Furthermore, from the 94 GP practices visited, 34 GP practices filled in the survey, indicating a response rate of 32%.

There was no opportunity in the survey to skip questions if the GP practices did not see any undocumented migrants. Many respondents have little undocumented migrants registered as patients, and thus the response rate to some of the questions was low and thus the results could be biased.

Question 15 from the survey asked how much the consultation fee to undocumented migrants amounts. However, 34,5% of the GP practices does never charge a consultation fee to undocumented migrants and sends the bill directly to the CAK. The GP practices might have put down the amount they charge to the CAK instead of to the undocumented patient, and therefore the results may not be correct.

There is no literature available regarding health care accessibility from the perspective of the health care provider and therefore the findings cannot be supported by other theories.

4.3 Conclusion

The migration crisis is influencing the health care accessibility in Amsterdam, as still many practices refuse undocumented migrants to register as a patient or refuse treatment to a passer-by. Inequalities in health care accessibility in Amsterdam exist as a part of the GP practices intentionally denying access to health care to undocumented migrants by applying a maximum to the number of undocumented migrants who can register as a patient. Arguments given for refusal by the GPs could be prevented by better informing health care providers about their obligations and by providing more information regarding the rules and regulations concerning health care provision to undocumented migrants to avoid accessibility barriers to GP practices. The existing regulations regarding health care provision to undocumented

migrants sometimes influence the accessibility to health care, and this study suggests the CAK regulation is not sufficiently clear to all GP practices. The Ministry must make implementations of Health, Welfare and Sports to improve the quality of the health care services GP practices provide to undocumented migrants,

So, the health care accessibility for undocumented migrants to GPs in Amsterdam, the Netherlands, could be improved by better informing all health care providers about their obligation to provide health care to undocumented migrants and how they should provide this care. Furthermore, the practices that do already have undocumented patients registered need a trustworthy and simplified billing system, equal division of the patients over the GP practices and postal code area, eradication of language barriers, and better education regarding health care provision to both undocumented migrants and health care providers.

5. Recommendations

This chapter presents recommendations for DvdW and further research.

5.1 Recommendations for Doctors of the World

The aim of DvdW is to enable excluded individuals and their communities to access to health care service. In the Netherlands, health care accessibility starts with improving the accessibility to GPs. DvdW can improve health care accessibility to GPs by providing the GP practices and other health care providers with more information about how the provision of health care to undocumented migrants works. The reasons given by GP practices for the denial of access to health care could be prevented by informing the GP about the rules and regulations regarding health care provision. GPs must be aware of the fact that they are obligated to provide health care to everybody, including undocumented migrants. Moreover, 31% of the GP practices experience language barriers as a significant problem when providing health care services to undocumented migrants. However, all health care providers in Amsterdam are allowed to use the free telephonic interpretation service of the AOF. By informing GPs about this regulation, the language barriers could be reduced.

24% of the GP practices need a simplified and trustworthy billing system to provide improved health care services to undocumented migrants. Therefore, the department *Pleitbezorging* of DvdW should Advocate to the Ministry of Health, Welfare and Sports for an improved and digitalized billing system.

5.2 Recommendations for Further Research

Since the sample size of this study was limited, future studies can conduct qualitative research instead of quantitative research to gather more in-dept information from GPs.

Many respondents choose to not fill all the questions from the survey. Constructing a survey with more closed-ended questions, instead of open-ended question, might increase the response rate to the survey questions.

This survey was only distributed in Amsterdam. Future studies can research the accessibility to GP in other cities in the Netherlands as well, to create a national overview of the possible problem.

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Appendices

Appendix 1: Survey

Initial Survey

Amsterdam, 4 februari 2021

Beste huisartsen,

Bij deze wil ik u uitnodigen om mee te doen aan een onderzoek naar de huisartsentoeegang voor ongedocumenteerden migranten in Amsterdam. Dit onderzoek wordt uitgevoerd door Nannet Moons, student van NHL Stenden Hogeschool en stagiaire bij Dokters van de Wereld. Het doel van dit onderzoek is om het perspectief vanuit de huisartsen in kaart te brengen en te kijken welke problemen huisartsen ervaren. Zodra duidelijk is waar de knelpunten liggen en hoe deze het best kunnen worden aangepakt, kan de toegankelijkheid tot de zorg worden geoptimaliseerd voor zowel de migrant als de zorgverlener.

Het invullen van deze enquête duurt slechts tien minuten. Uw deelname aan dit onderzoek is geheel vrijwillig en u kunt zich op elk moment terugtrekken. U hoeft geen vragen te beantwoorden die u niet wilt beantwoorden.

Er zijn geen bekende risico's verbonden aan dit onderzoek. Uw antwoorden blijven anoniem en alle demografische gegevens die u kunnen identificeren worden apart van de onderzoeksresultaten gerapporteerd.

In samenwerking met Dokters van de Wereld voer ik dit onderzoek uit om mijn bachelorsdiploma te behalen en daarmee mijn studie af te ronden. Het onderzoek kan gedeeld worden met docenten voor de beoordeling en daarnaast kan het onderzoek gebruikt worden voor verder academisch onderzoek of in tijdschriftpublicaties. Verder worden de (anonieme) uitkomsten van de enquête gebruikt om bij de Landelijke Huisartsen Vereniging en andere stakeholders inzicht in barrières en oplossingsrichtingen te geven.

Goedkeuring van de deelnemer

Door deze enquête in te vullen, geef ik toestemming om deel te nemen aan dit onderzoek.

Ik wil u bij voorbaat hartelijk danken voor uw medewerking. Voor vragen of meer informatie over het onderzoek of over Dokters van de Wereld kunt u mailen naar nmoons@doktersvandewereld.org, of bellen naar 06-17564268.

1. Hoe groot is uw totale patiëntenbestand?

.....

2. Hoeveel ongedocumenteerde patiënten staan er ingeschreven in uw praktijk?

- Geen
- < 50
- 51-100
- 101-150
- 151-200
- 201-250
- 251-300
- 301-350
- 351-400
- 401-450
- 451-500
- > 500

3. Hoe vaak ziet u deze ongedocumenteerde patiënten gemiddeld?

- Minder dan 1 keer per jaar
- 1 keer per jaar
- Halfjaarlijks
- Driemaandelijks
- 1 keer per maand
- Meer dan 1 keer per maand
- Wekelijks

4. Hoeveel ongedocumenteerde patiënten ziet u maandelijks als passant in uw praktijk?

- Geen
- 1-10
- 11-25
- 26-40
- 41-55
- 56-70
- 71-85
- 86-100
- > 100

5. Kunt u een inschatting maken waar de meeste ongedocumenteerde patiënten in uw praktijk vandaan komen?

- Midden/Zuid-Amerika
- Noord-Afrika
- West-Afrika
- Oost-Afrika
- Middellandse Zeegebied
- Zuidoost-Azië
- Midden-Oosten
- Anders:

6. Via welke personen/instanties komen ongedocumenteerde patiënten bij u terecht (meerdere antwoorden mogelijk)?

- Andere patiënten
- ASKV/Steunpunt Vluchtelingen
- Buurthuis
- Dokters van de Wereld
- Familie
- Kerkelijke instanties
- Stap Verder
- Wereldhuis
- LVV
- Kruispost
- Weet ik niet
- Anders:

7. Besluit u weleens ongedocumenteerde migranten te weigeren als patiënt of passant?

- Ja
- Nee

8. Als u besluit een ongedocumenteerde patiënten niet op te nemen in uw patiëntenbestand, wat is daar dan de reden voor?

.....

.....

.....

9. Als u besluit ongedocumenteerde passanten niet te behandelen, wat is daar dan de reden voor?

.....

.....

.....

10. Hanteert u een maximum aan het aantal ongedocumenteerden patiënten die uw praktijk opneemt?

- Ja
- Nee

11. Zo ja, wat is dit maximaantal en wat is daar de reden van?

.....

.....

.....

12. Wordt er in uw praktijk een inschrijftarief gevraagd aan ongedocumenteerde patiënten?

- Ja
- Nee

13. Zo ja, hoeveel bedraagt dit inschrijftarief?

.....

14. Wordt er in uw praktijk een consulttarief gevraagd aan ongedocumenteerde patiënten?

- Altijd
- Soms
- Nooit

15. Zo ja, hoeveel bedraagt dit consulttarief?

.....

16. Hoe vaak per maand komt het voor dat ongedocumenteerde patiënten de rekening niet of niet volledig kunnen betalen?

- Nooit
- 1-10 keer per maand
- 11-20 keer per maand
- 21-30 keer per maand
- 31-40 keer per maand
- 41-50 keer per maand
- Meer dan vijftig keer per maand

17. Wanneer een ongedocumenteerde patiënt de rekening zelf niet of niet volledig kan betalen, wat is dan de procedure in uw praktijk?

.....

.....

.....

18. Bent u bekend met de CAK-regeling?

- Ja
- Nee

19. Indien nee, zou u hier meer informatie over willen hebben?

- Ja
- Nee

20. Als u geen gebruik maakt van de CAK-regeling, wat is daarvan de reden?

.....

.....

.....

21. Komt u weleens problemen tegen bij het gebruik van de CAK-regeling? Zo ja, wat zijn dit voor problemen?

.....

.....

.....

22. Welke (niet-financiële) problemen komt u tegen bij het verlenen van zorg aan ongedocumenteerden?

.....

.....

.....

23. Hoe vaak komt u problemen tegen bij het doorverwijzen van ongedocumenteerde patiënten naar tweedelijns zorg?

- Nooit
- Soms (gemiddeld bij 1 op de 10 ongedocumenteerde patiënten)
- Regelmatig (gemiddeld bij 5 op de 10 ongedocumenteerde patiënten)
- Vaak (gemiddeld bij 8 op de 10 ongedocumenteerde patiënten)
- Altijd

24. Ervaart u de toegankelijkheid tot de tweedelijnszorg van ongedocumenteerde patiënten als een probleem? Zo ja, ervaart u hierin een toename?

.....

25. Vindt u toegankelijkheid tot de zorg voor ongedocumenteerde patiënten een probleem van uw praktijk zelf of collectief probleem (LHV/VWS)? Waarom vindt u dat?

.....
.....
.....

26. Wat is er nodig om het voor u gemakkelijker te maken ongedocumenteerde migranten bij u patiënt te laten worden?

.....
.....
.....

27. Welke vorm heeft uw praktijk?

- Solo
- Duo
- Gezondheidscentrum

28. In welk postcodegebied bevindt uw praktijk zich?

.....

29. Heeft u er bezwaar tegen als wij n.a.v. de resultaten van deze enquête contact met u opnemen om verdere informatie in te winnen?

- Ja
- Nee

30. Laat hier de naam van uw praktijk, emailadres en telefoonnummer achter (optioneel).

.....
.....
.....

31. Heeft u verder nog vragen of opmerkingen?

.....
.....
.....

Dear General Practitioners,

Hereby I want to invite you to join the research on accessibility to general practitioners for undocumented migrants in Amsterdam. This research is conducted by Nannet Moons, a student from NHL Stenden University of Applied Sciences and interns at Dokters van de Wereld. This research aims to identify the perspective of the general practitioner and determine which problem general practitioners experience. When the difficulties and challenges are identified, the accessibility to health care can be optimized, both for the migrant and the health care provider.

Filling in this survey will only take ten minutes. Your participation in this research is entirely voluntary, and you can withdraw at any moment. You are not obligated to answer questions you do not wish to answer.

There are no known risks associated with this research. Your survey replies will remain anonymous, and all demographic information that may identify you will be reported separately from the research results.

I conduct this research in cooperation with Dokters van de Wereld to obtain my bachelor's degree. The research can be shared with lectures from NHL Stenden for the assessment. Also, the research can be used for further academic research or in journal publication. The (anonymous) results of the survey will be used to create insight into the barriers and give solution paths to the National General Practitioners Association and other stakeholders.

Consent of the participant

By filling in this survey, I permit to take part in this research.

I want to thank you in advance for your cooperation. For questions or more information regarding the research or Dokters van de Wereld, you can email nmoons@doktersvandewereld.org or call 06-17564268.

1. What is the extent of your total patient database?

.....

2. How many undocumented patients are registered in your practice?

- Zero
- < 50
- 51-100
- 101-150
- 151-200
- 201-250
- 251-300
- 301-350
- 351-400
- 401-450
- 451-500
- > 500

3. How many times per year do you see these undocumented patients on average?

- Less than once a year
- Once a year
- Half-yearly
- Quarterly
- Once a month
- Less than once a month
- Weekly

4. How many undocumented patients do you see on a monthly base as a passer-by in your practice?

- Zero
- 1-10
- 11-25
- 26-40
- 41-55
- 56-70
- 71-85
- 86-100
- > 100

5. What is the estimated country of origin of the most undocumented patients in your practice?

- Central/South America
- North Africa
- West Africa
- East Africa

- Mediterranean Region
- Southeast Asia
- Middle East
- Other:

6. Through which persons/institutions are undocumented patients referred to your practice? Multiple answers are possible.

- Other patients
- ASKV/Support Point Refugees
- Community centre
- Doctors of the World
- Family
- Churches
- Stap Verder
- Wereldhuis
- LVV
- Kruispost
- Do not know
- Other:

7. Do you sometimes decide to refuse undocumented migrants as a patient or passer-by?

- Yes
- No

8. When you decide to refuse to accept an undocumented patient in your patients' database, what is the reason?

.....
.....
.....

9. When you decide to refuse treatment to a passer-by, what is the reason?

.....
.....
.....

10. Does your practice apply a maximum to the number of undocumented patients that can be admitted?

- Yes
- No

11. If yes, what is the maximum amount and why?

.....
.....
.....

12. Does your practice charge a registration fee to undocumented patients?

- Yes
- No

13. If yes, how much is this registration fee?

.....

14. Does your practice charge a consultation fee to undocumented patients?

- Always
- Sometimes
- Never

15. If yes, how much is this consultation fee?

.....

16 How many times per month does it occur that undocumented patients are unable to pay the bill or a part of the bill?

- Never
- 1-10 times per month
- 11-20 times per month
- 21-30 times per month
- 31-40 times per month
- 41-50 times per month
- More than fifty times per month

16. When an undocumented patient cannot pay a part or the total amount of the bill, what is the procedure in your practice?

.....
.....
.....

17. Are you familiar with the CAK-regulation?

- Yes
- No

18. If no, would you like to receive information about the CAK-regulation?

- Yes
- No

19. If you are not making use of the CAK-regulation, what is the reason?

.....
.....
.....

20. Do you experience problems while using the CAK-regulation? If yes, what are those problems?

.....
.....
.....

21. Which (non-financial) problems do you encounter when providing health services care to undocumented migrants?

.....
.....
.....

22. How often do you encounter problems when referring undocumented patients to second-line health care?

- Never
- Sometimes (on average in 1 in 10 undocumented patients)
- Regular (on average in 5 in 10 undocumented patients)
- Often (on average in 8 in 10 undocumented patients)
- Always

23. Do you experience the accessibility to second-line health care for undocumented migrants as a problem? If yes, do you experience an increase in this?

.....

24. Do you think the accessibility to health care for undocumented migrants a problem of your practice or a collective problem (National General Practitioners Association / Ministry of Health, Welfare and Sports)? Why do you think that?

.....
.....
.....

25. What do you need to make it easier to accept undocumented migrants as a patient?

.....
.....
.....

26. What kind of practice do you have?

- Solo
- Duo
- Health center

27. In which postal code area is your practice located?

.....

28. When the research results are known, do you object to contacting you for more information?

- Yes
- No

29. Leave the name of your practice, email address and telephone number (optional).

.....
.....
.....

30. Do you have any more questions or comments?

.....
.....
.....

Appendix 2: Quantitative Analysis Scheme

Research question	Variables	Survey Question	Measurement	Measurement level	Statistical method
	General information	1. What is the extent of your total patient database?	Open-ended	Ratio, continuous	One-way ANOVA, Spearman's Correlation Coefficient, Mean
1.How is the migration crisis influencing health care accessibility in the Netherlands?	General information	2.How many undocumented patients are registered in your practice? <input type="checkbox"/> Zero <input type="checkbox"/> < 50 <input type="checkbox"/> 51-100 <input type="checkbox"/> 101-150 <input type="checkbox"/> 151-200 <input type="checkbox"/> 201-250 <input type="checkbox"/> 251-300 <input type="checkbox"/> 301-350 <input type="checkbox"/> 351-400 <input type="checkbox"/> 401-450 <input type="checkbox"/> 451-500 <input type="checkbox"/> > 500	Open-ended	Ordinal	Spearman's Correlation Coefficient, One-way ANOVA, Chi-Square Test
1.How is the migration crisis influencing health care accessibility in the Netherlands?	General information	3. How many times per year do you see these undocumented patients on average? <input type="checkbox"/> Less than once a year <input type="checkbox"/> Once a year <input type="checkbox"/> Half-yearly <input type="checkbox"/> Quarterly <input type="checkbox"/> Once a month	Multiple-choice, Single response scale	Ordinal	Spearman's Correlation Coefficient, One-way ANOVA

		<input type="checkbox"/> Less than once a month <input type="checkbox"/> Weekly			
1.How is the migration crisis influencing health care accessibility in the Netherlands?	General information	4. How many undocumented patients do you see on a monthly base as a passer-by in your practice? <input type="checkbox"/> Zero <input type="checkbox"/> 1-10 <input type="checkbox"/> 11-25 <input type="checkbox"/> 26-40 <input type="checkbox"/> 41-55 <input type="checkbox"/> 56-70 <input type="checkbox"/> 71-85 <input type="checkbox"/> 86-100 <input type="checkbox"/> > 100	Multiple-choice, Single response scale	Ordinal	Frequency analysis
1.How is the migration crisis influencing health care accessibility in the Netherlands?	General information	5. What is the estimated country of origin of the most undocumented patients in your practice? <input type="checkbox"/> Central/South America <input type="checkbox"/> North Africa <input type="checkbox"/> West Africa <input type="checkbox"/> East Afrika <input type="checkbox"/> Mediterranean Region <input type="checkbox"/> Southeast Asia <input type="checkbox"/> Middle East <input type="checkbox"/> Other:	Multiple-choice, Multiple response scale	Nominal	Frequency analysis
1.How is the migration crisis influencing health care accessibility in the Netherlands?	General information	6. Through which persons/institutions are undocumented patients referred to your practice? Multiple answers are possible. <input type="checkbox"/> Other patients <input type="checkbox"/> ASKV/Support Point Refugees <input type="checkbox"/> Community center <input type="checkbox"/> Doctors of the World	Multiple-choice, Multiple response scale	Nominal	Frequency analysis

		<input type="checkbox"/> Family <input type="checkbox"/> Churches <input type="checkbox"/> Stap Verder <input type="checkbox"/> Wereldhuis <input type="checkbox"/> LVV <input type="checkbox"/> Kruispost <input type="checkbox"/> Do not know <input type="checkbox"/> Other:			
2.Which inequalities in health care accessibility are existing in the Netherlands?	Refusal of patients	7. Do you sometimes decide to refuse undocumented migrants as a patient or passer-by? <input type="checkbox"/> Yes <input type="checkbox"/> No	Multiple-choice, Single response scale	Nominal (dichotomous)	Frequency analysis
2.Which inequalities in health care accessibility are existing in the Netherlands?	Refusal of patients	8. When you decide to refuse to accept an undocumented patient in your patients' database, what is the reason?	Open-ended	Nominal	Frequency analysis
2.Which inequalities in health care accessibility are existing in the Netherlands?	Refusal of patients	9. When you decide to refuse to treat a passer-by, what is the reason?	Open-ended	Nominal	Frequency analysis
2.Which inequalities in health care accessibility are existing in the Netherlands?	Refusal of patients	10. Do you apply a maximum to the number of undocumented patients that your practice admits? <input type="checkbox"/> Yes <input type="checkbox"/> No	Multiple-choice, Single response scale	Nominal (dichotomous)	Frequency analysis

2. Which inequalities in health care accessibility are existing in the Netherlands?	Refusal of patients	11. If yes, what is the maximum amount and why?	Open-ended	Ratio, continuous	Frequency analysis
2. Which inequalities in health care accessibility are existing in the Netherlands?	Economic barriers	12. Does your practice charge a registration fee to undocumented patients? <input type="checkbox"/> Yes <input type="checkbox"/> No	Multiple-choice, Single response scale	Nominal (dichotomous)	Frequency analysis
2. Which inequalities in health care accessibility are existing in the Netherlands?	Economic barriers	13. If yes, how much is this registration fee?	Open-ended	Ratio, continuous	Frequency analysis
2. Which inequalities in health care accessibility are existing in the Netherlands?	Economic barriers	14. Does your practice charge a consultation fee to undocumented patients? <input type="checkbox"/> Always <input type="checkbox"/> Sometimes <input type="checkbox"/> Never	Multiple-choice, Single response scale	Ordinal	Frequency analysis
2. Which inequalities in health care accessibility are existing in the Netherlands?	Economic barriers	15. If yes, how much is this consultation fee?	Open-ended	Ratio, continuous	Frequency analysis
4. Which problems do GPs face when providing health	Economic barriers	16. How many times per month does it occur that undocumented patients are unable to pay the bill or a part of the bill? <input type="checkbox"/> Never	Multiple-choice, Single response scale	Ordinal	Frequency analysis

care to undocumented migrants?		<input type="checkbox"/> 1-10 times per month <input type="checkbox"/> 11-20 times per month <input type="checkbox"/> 21-30 times per month <input type="checkbox"/> 31-40 times per month <input type="checkbox"/> 41-50 times per month <input type="checkbox"/> More than fifty times per month			
4. Which problems do GPs face when providing health care to undocumented migrants?	Economic barriers	17. When an undocumented patient is not able to pay a part of the full amount of the bill, what is the procedure in your practice?	Open-ended	Nominal	Frequency analysis
3. How are the existing regulations regarding the health care provision to undocumented migrants influencing health care accessibility?	CAK	18. Are you familiar with the CAK-regulation? <input type="checkbox"/> Yes <input type="checkbox"/> No	Multiple-choice, Single response scale	Nominal (dichotomous)	Frequency analysis
3. How are the existing regulations regarding the health care provision to undocumented migrants influencing health care accessibility?	CAK	19. If no, would you like to receive information about the CAK-regulation? <input type="checkbox"/> Yes <input type="checkbox"/> No	Multiple-choice, Single response scale	Nominal (dichotomous)	Frequency analysis
3. How are the existing regulations regarding the health care provision to	CAK	20. If you are not making use of the CAK-regulation, what is the reason?	Open-ended	Nominal	Frequency analysis

undocumented migrants influencing health care accessibility?					
3. How are the existing regulations regarding the health care provision to undocumented migrants influencing health care accessibility?	CAK	21. Do you experience problems when using the CAK-regulation? If yes, what are those problems?	Open-ended	Nominal (dichotomous)	Frequency analysis
4. Which problems do GPs face when providing health care to undocumented migrants?	Health care accessibility	22. Which (non-financial) problems do you encounter when providing health care to undocumented migrants?	Open-ended	Nominal	Frequency analysis
4. Which problems do GPs face when providing health care to undocumented migrants?	Second-line health care	23. How often do you encounter problems when referring undocumented patients to second-line health care? <input type="checkbox"/> Never <input type="checkbox"/> Sometimes (on average in 1 in 10 undocumented patients) <input type="checkbox"/> Regular (on average in 5 in 10 undocumented patients) <input type="checkbox"/> Often (on average in 8 in 10 undocumented patients) <input type="checkbox"/> Always	Multiple-choice, Single response scale	Ordinal	Frequency analysis
4. Which problems do GPs face when providing health	Second-line health care	24. Do you experience the accessibility to second-line health care for undocumented migrants as a problem? If yes, do you experience an increase in this?	Open-ended	Nominal (dichotomous)	Frequency analysis

care to undocumented migrants?					
5.How could the quality of the service delivery of GPs to undocumented migrants be improved?	Health care accessibility	25. Do you think the accessibility to health care for undocumented migrants a problem of your practice or a collective problem (National General Practitioners Association / Ministry of Health, Welfare and Sports)? Why do you think that?	Open-ended	Nominal (dichotomous)	Frequency analysis
5.How could the quality of the service delivery of GPs to undocumented migrants be improved?	Health care accessibility	26. What do you need to make it easier to accept undocumented migrants as a patient?	Open-ended	Nominal	Frequency analysis
	General information	27. What kind of practice do you have? <input type="checkbox"/> Solo <input type="checkbox"/> Duo <input type="checkbox"/> Health center	Multiple-choice, Single response scale	Nominal	Chi-Square Test
	General information	28. In which postal code area is your practice located?	Open-ended	Nominal, continuous	Chi-Square Test

Appendix 3: Results

Table 24. City district and undocumented migrants registered

(Measurement: nominal, ordinal) (N = 34)

Chi-Square Tests			
	Value	Df	Asymptotic Significance (2-sided)
Pearson Chi-Square	6,363	10	,784
Likelihood Ratio	7,985	10	,630
N of Valid Cases	34		