Towards Universal Health Coverage for Syrian refugees

An analysis of financial protection arrangements to increase utilization of health services of non-communicable diseases among non-camp Syrian refugees in Jordan

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A thesis submitted in partial fulfilment of the requirement for the degree of Master in International Health

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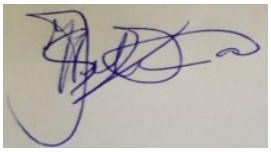
Signature: 

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Abstract

Objective: A vulnerable group of non-camp Syrian refugees with high prevalence of NCDs face financial barriers in utilizing health services for NCDs. Yet chronic NCD care is essential to prevent NCD associated morbidity and mortality. This thesis explores which financial protection arrangements have the potential to increase the utilization of NCD services among non-camp Syrian refugees in Jordan to identify good practices in order formulate recommendations for policy and research.

Method: This thesis is based on a literature review of published and unpublished data sources. Jacob's analytical framework was adapted to analyse financial protection arrangements for healthcare utilization

Results: Demand side financial arrangements like cash transfers and vouchers have the potential to increase utilization of NCD services. For these arrangements to be successful, a minimum household income should be guaranteed to cover basic needs

Conclusion: Demand-side financial arrangements may be an effective tool to provide financial protection in the use of NCD services for non-camp Syrian refugees in Jordan.

Recommendations: Pilots with different types of DSF may be initiated for monitoring and evaluation. Simultaneous preparation and strengthening in capacity and efficiency of the Jordanian health system is required. And there is need for further research on the effectiveness of financial arrangements on health care utilization for Syrian refugees with NCDs.

Key words: Syrian refugees, NCDs, utilization, financial protection, Jordan

Word Count: 10298 words

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List of abbreviations

CCT	Conditional Cash Transfer
CHE	Catastrophic Health Expenditure
CVD	Cardiovascular Disease
DSF	Demand Side Financial arrangements
GDP	Gross Domestic Product
HIC	High Income Countries
HIV	Human Immunodeficiency Virus
JOD	Jordanian Dollar
LIC	Lower Income Countries
LMIC	Low and Middle-Income Countries
MDG	Millennium Development Goals
MIC	Middle Income Countries
MOH	Ministry of Health
NCD	Non-Communicable Disease
NGO	Nongovernmental Organization
ODI	Overseas Development Institution
OOP	Out of Pocket Payment
PFP	Pay-for-Performance
RMS	Royal Medical Services
SRH	Sexual Reproductive Health
SSF	Supply Side Financial arrangements
THE	Total Health Expenditure
UCT	Unconditional Cash Transfer
UHC	Universal Health Coverage
UNHCR	United Nations High Commissioner for Refugees
UNRWA	United Nations Relief and Works Agency for Palestine Refugees
WHO	World Health Organization
WFP	World Food Programme

Definitions

Catastrophic Health Expenditure: refers to out of pocket expenditure (OOP) on health that drives a household into poverty and is measured by the share of households whose OOP on health was over 40% of their non-subsistence or non-food expenditure in year (1)

Non-Communicable Diseases: "chronic diseases, tend to be of long duration and are the result of a combination of genetic, physiological, environmental and behaviours factors. The four main types of NCDs are cardiovascular diseases, cancers, chronic respiratory diseases and diabetes (2)"

Refugee: "someone who has fled his or her country because of armed conflict or persecution based on race, religion, nationality, membership of a specific social group or political opinion" (3)

Non-camp refugee: The 'non-camp' stands for refugees who live outside refugee camps dispersed among the host community.

Out of pocket expenditure: "direct payments made by individuals to health care providers at the time of service use. This excludes any prepayment for health services, for example in the form of taxes or specific insurance premiums or contributions and, where possible, net of any reimbursements to the individual who made the payments" (4)

Registered refugee: A refugee who has been provided a record of their status by United Nations High Commissioner for Refugees (UNHCR).

Social protection: "All public and private initiatives that provide income or consumption transfers to the poor, protect the vulnerable against livelihood risks, and enhance the social status and rights of the marginalized; with the overall objective of reducing the economic and social vulnerability of poor, vulnerable and marginalized groups" (5).

Vulnerable populations: "Three categories of people in need of social protection, which are the chronically poor, economically vulnerable and the socially marginalised" (5).

Universal health coverage: "All people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship" (6).

Introduction

Non-communicable Diseases (NCDs) are a major and increasing health problem globally, which I have experienced during my work as a general physician in different continents and with different cultures the past 20 years. I gained most of my NCD related experience from working in the Netherlands, Caribbean and Kenya, which all experience a demographic transition from communicable diseases to non-communicable diseases. This transition has influenced my work as a general physician. NCD care and management has become an important part of my daily work.

NCD management is important to improve quality of life and to reduce life threatening complications, excessive morbidity and premature mortality related to NCDs. I have witnessed health systems in both High-Income Countries (HIC) and Low and Middle-Income Countries (LMIC) struggle with chronic and costly NCD management. There are still gaps in the implementation of effective policies for NCDs, especially in low and middle income-countries (LMIC).

Since NCDs are rising globally, NCD services are essential and should be available and affordable to everyone who needs it. This is in line with Universal Health Coverage (UHC). Ensuring equitable access to affordable and essential quality health services for all people is the mainstay of Universal Health Coverage (UHC).

The effects of humanitarian crisis on UHC and specifically on NCD care is of interest to me.

Before the crises the Syrian population had access to relatively good health services including preventive and curative services for NCDs. Due to the conflict, these Syrians are now displaced and are an additional burden to the health services of host countries.

Given the circumstances these Syrian refugees live in, covering basic needs is a priority for them, and management of chronic diseases may not be at the top of their priority list.

There is no UHC for refugees yet and it's still not clear how financial arrangements can support Syrian refugees in their utilization of NCD services. In the meantime, the number of Syrian refugees is increasing, the crisis is still not at its end, and the prevalence of NCDs remains high. Securing affordable NCD care for Syrian refugees in host countries is important.

With this study, I will look for the epidemiology of NCDs, existing NCD services and health financing systems in host country Jordan since the start of the Syrian crisis in 2011 till the end of 2017, with special focus on the non-camp Syrian refugees. I will study how financial factors are influencing the utilization of NCD services among Syrian refugees in Jordan and look for financial arrangements used in comparable situations with a literature review. I will conclude with recommendations on financial protection mechanisms to Ministry of Health (MOH) and UNHCR to improve the utilization of NCD services among non-camp Syrian refugees in Jordan.

Chapter 1 Background

This chapter starts with a brief description of the Syrian crisis and continues with the context of Jordan giving information about Jordan's geography, demographics, socio-economic environment, health system and health finance. The final subchapters will highlight the financial policy for Syrian refugees in Jordan, in line with the focus of this thesis.

1.1 Syrian crisis

The Arabian world consists of 20 countries located in a stretch from North Africa to the Middle East. On the 17th of December 2010, a revolutionary wave of demonstrations for democracy started in Tunis and quickly spread under the name of Arabian spring uprising to other Arabian countries. In Syria, the first demonstrations took place in March 2011. These demonstrations transformed into an ongoing civil war, causing the largest population movement in recorded history with more than 6,3 million internally displaced people and 5,4 million UNHCR registered refugees by the end of 2017 (7,8). The bulk of these registered refugees are residing in three neighbouring countries: over 3,3 million in Turkey, more than 1,0 million in Lebanon and slightly more than 0,6 million in Jordan (8). These figures don't include unregistered refugees. It is estimated that Jordan has an additional 0,6 million unregistered refugees, resulting in a total of approximately 1,3 million Syrian refugees in the country (9).

1.2 Jordan geography

The Hashemite Kingdom of Jordan (Jordan), is an Arab Kingdom in the Middle East of 89.342 square kilometres. Jordan has borders with Saudi Arabia on the south and east, Iraq to the north-east, Syria to the north and Israel and Palestine to the west (Figure 1).

The eastern part of Jordan is extremely arid and has very scarce water resources. Consequently, more than 80% of the population resides in urban areas, with high concentrations in the north west, in and around the capital of Amman (10).

Figure 1. Map of Jordan. Source: Central Intelligence Agency – The World Fact book (10)

1.3 Jordan demography

Jordan's population is mainly of Arabic ethnicity (98%) with Muslim religion (97,2%). In 2016 the population increased to almost 9,5 million at a growth rate of 3,2 %. More than half of the population is younger than 25 years of age, as illustrated in the population pyramid (figure 2) (11). There is a large proportion of women in reproductive age, and a high fertility rate of 3,5 children per woman. Therefore a further rise in population is expected especially since the crude mortality rates have declined the past decennia (12).

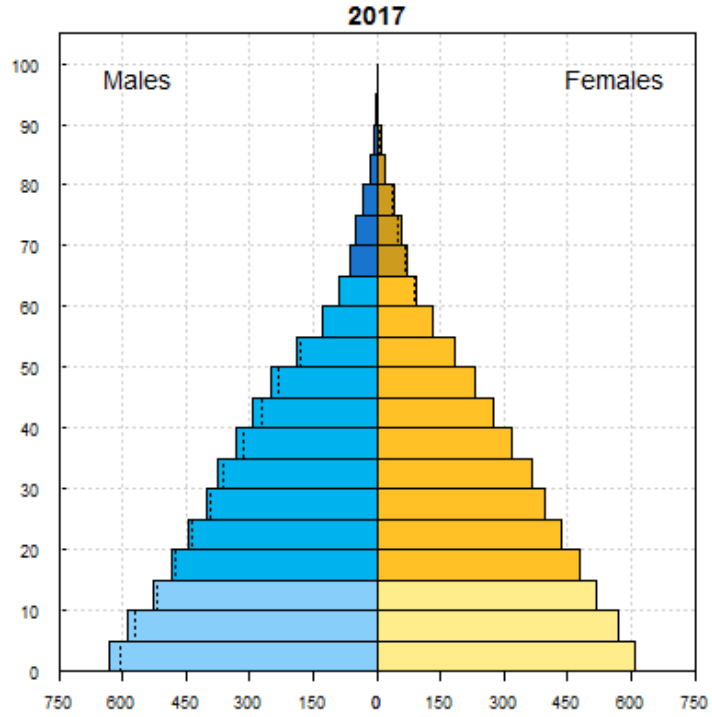

Figure 2 Population pyramid of Jordan 2017. Source: United Nations 2017 (11)

Figure 2. Population pyramid of Jordan 2017. Source: United Nations 2017 (11)
The dotted line indicates the excess male or female population in certain age groups. The data are in thousands or millions and represent the population in each age group.

1.4 Jordan socio-economics

On the first of July 2017, the World Bank classified Jordan as a Lower Middle Income Country (LMIC) with a Gross National Income/capita (current USD) of 3,92 (12).

To achieve the Millennium Development Goals (MDGs), Jordan made effort to fight poverty, improve the health system and increase the literacy rate to almost 98% for 15 years and above in 2016.

Jordan has very few natural resources. Services account for two third of the Gross Domestic Product (GDP) and include mainly banking, insurances, medical services, higher education, tourism, transport and computer and programming (12). Regional crises in Iraq and Syria and the large influx of Syrian refugees have put pressure on Jordanian resources, infrastructure, services and economic growth. In 2010, 14,4% of the population lived below the national poverty line, with no official data from the World Bank afterwards (12). The GDP annual growth dropped from 3,1% in 2014 to 2,0% in 2016 (12). The unemployment rate increased from 11,9% in 2014 to 13,4% in 2017 (13).

1.5 Jordan health

In 2016, life expectancy was 74,2 years (12). NCDs are the leading cause of death with 76% (14). The demographic transition from communicable diseases to NCDs is enforced by unhealthy lifestyle. Almost 50% of male population use tobacco and 35,5% of adults were obese in 2016 (10,14).

1.6 Jordan health system

The Jordanian health sector consists of service providers, councils and institutions. The High Health Council coordinates and is headed by the Prime Minister. Jordan is constantly investing in health care, targeting at the populations needs, through a wide network of the public, private, international and charitable sectors (**Fout! Verwijzingsbron niet gevonden.**). There are strategies, services and health education programs for NCDs, good quality of services, but inefficiencies in coordination between the public and the large private sector (15). The public sector consists of the Ministry of Health (MOH), Royal Medical Services, University Hospitals and the National Centre for Diabetes, Endocrinology and Genetics. The private sector contains private hospitals, clinics and diagnostic and therapeutic centres. International and charitable sectors provide services through United Nations Relief and Works Agency for Palestine Refugees (UNRWA) clinics for Palestinian refugees, UNHCR, Nongovernmental Organizations (NGOs) and King Hussein Cancer Centre, a specialized world class cancer treatment facility (16).

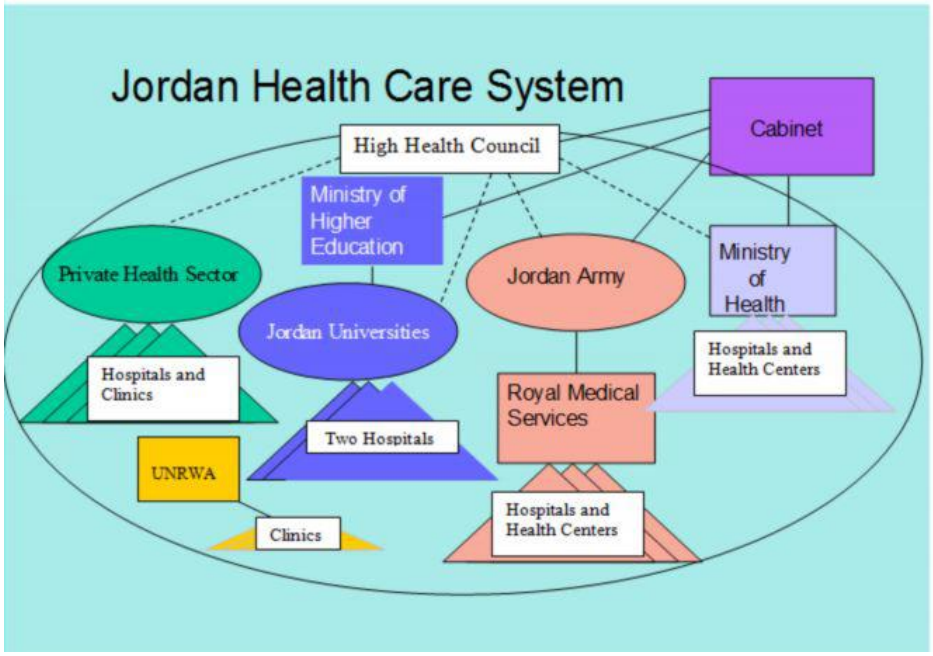

Figure 3 Jordan Health Care System Source: Research Gate 2018 (17)

1.7 Jordan Health Financing

In 2014, the government spent 13,7% of the total government expenditure on health. The total health expenditure (THE) as percentage of GDP was 7,45%, and per capita 359USD in 2014. The general government expenditure on health showed an increase between 2003 and 2011, where after it slightly fluctuated around 70% of THE until 2014. Implementation of the National Health Insurance system between 1998 and 2010 led to a coverage of 86% of the population in 2013, largely provided by MOH (44%) and RMS (27%) (15,18). All MOH services are available to anyone for subsidized fees (19). Consequently, the private expenditure on health decreased after 2003, and remained around 30% in 2014. The out-of-

pocket payments (OOP) peaked with 42% in 2003, and dropped to 21% in 2014.

1.8 Syrian refugees and access to health services in Jordan

In Jordan, UNHCR registered Syrian refugees were initially offered access to free MOH services, based on a policy initiated by Jordan in May 2012 (20). This policy was revised in November 2014 when the Jordanian health system got overwhelmed with the health care needs of large numbers of Syrian refugees and tensions evolved among the hosting community who had to share available health services. Now registered Syrian refugees need to pay subsidized rates just like non-insured Jordanians, which is around 35-60% of what other non-Jordanians and non-registered Syrian refugees are being charged (21).

Chapter 2 Problem statement, objectives and methodology

This chapter introduces the problem statement, justification, study objectives, methodology and conceptual framework to be used.

2.1 Problem statement

Non-communicable diseases (NCDs), are chronic diseases, resulting from a combination of genetic, physiological, environmental and behavioural factors. The four main types of NCDs are cardiovascular diseases (CVDs), cancers, chronic respiratory diseases and diabetes. Important risk factors for getting these NCDs are hypertension, smoking, obesity and lack of physical activity (2).

Globally, and especially in LMIC, the prevalence of NCDs is rising. With 40 million people dying a year, NCDs cause 70% of all global deaths. More than 80% of NCD deaths that occur before the age of 70 take place in LMIC (2). The Arabian region has the highest prevalence of NCDs with high rates of NCD risk factors (22). Syria is also a LMIC with a high burden of NCDs (23). NCDs caused 77% of all deaths among its population prior to the Syrian conflict. CVDs accounted even for 45% of all mortality in Syria.
Of all Syrian adults, 47% had hypertension, 38% obesity and 39% were smoking (24,25). Prior to the Syrian conflict, Syria's health care system was reasonably well developed. Syria had a public and private health care sector, where Syrians had to pay for all services in both sectors. Services for NCDs were there.

Syrian refugees are registered with UNHCR, but by estimation, half of the Syrian refugee population are not registered in Jordan. Besides inconvenient registration processes, it is unclear for what reasons so many Syrians fail to register, and uncertain how they are self-reliant without assistance from UNHCR (20). Of the other half, around 80% of the registered Syrian refugees live in Jordan's urban areas, mainly in the Northwest and outside camps (**Fout! Verwijzingsbron niet gevonden.**) (26). The majority of the Syrian refugees remain mainly in urban areas of the capital of Amman (186.078), and cities of Mafraq (157.951), Irbid (135.779), Zarqa (108.851) (figure 4). The largest refugee camp Zaatari has 78.994 Syrian refugees (8).

Both urbanization and humanitarian crises have a deteriorating effect on health determinants. Acute needs like water, sanitation, hygiene, food, shelter and income are prioritized above NCD management. Psychological stress and lack of finance cause people to respond with coping strategies and unhealthy lifestyle behaviour, exposing them to getting NCDs or exacerbation of NCDs (27).

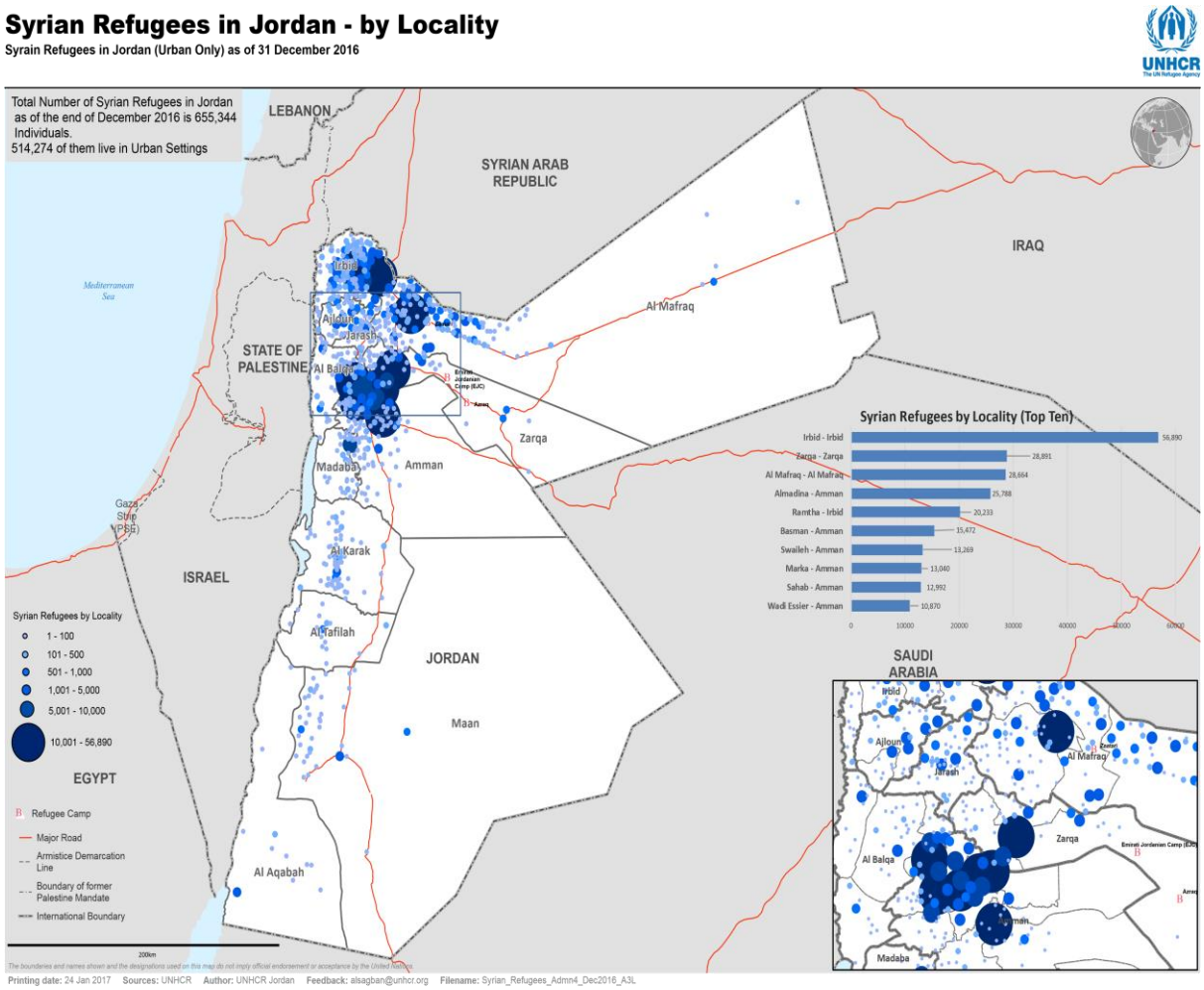

Figure 4 Heat map showing the concentration of Syrians in urban areas across Jordan. Source UNHCR 2017 (28)

The Syrian crisis and other conflicts in the Middle East are illustrative for change in characteristics of forced migration. More refugees originate from middle income countries (MIC) then lower income countries (LIC), are older in age and carry an increasing burden of NCDs. Migration is often towards urban areas in MIC with already a pre-existent high prevalence of NCDs (29).

Jordan's high prevalence of NCDs is expected to increase because of the demographic transition and continuous population growth. The high prevalence of Syrian refugees adds to the NCD burden within Jordan. Jordan's Strategic Plan states clearly that providing for rising demand of NCD services will be an increasing organizational challenge with high costs. Strategic planning is necessary to guarantee equitable and affordable essential chronic NCD care (16,21). Support from humanitarian aid organizations are mainly by provision of acute care in crises situations and in camps for registered refugees (8).

Nearly 21% of the Syrian households experienced catastrophic health expenditure (CHE), while the CHE for Jordanians was as low as 0,42% in 2013 (30). Even though the government of Jordan installed subsidized fees

for registered Syrian refugees, high OOP and cost for transportation were still mentioned as main barriers in the use of NCD services (31,32). Decreased utilization of NCD services and interruptions in NCD care, will eventually lead to worse health outcomes, negative impact on household-economy and higher health care expenditure (2).

2.2 Justification

It is of public health importance that humanitarian assistance in protracted crisis focusses on affordable access to NCD prevention and treatment programs to reduce morbidity and mortality caused by NCDs.
Even though risk factors for NCDs and prevalence of NCDs among Syrian refugees are high, financial protection arrangements to provide equitable and affordable chronic NCD care for the most vulnerable is experienced as insufficient and only for the registered refugees (20)(33).
The economic situation of Syrian refugees and their living standards are still critical (34–37). Securing access to NCD services will benefit refugees in their health and financial stability. It might also reduce the secondary and tertiary burden and costs of NCD care for the Jordanian health system.

In 2005 a resolution was initiated by World Health Organization (WHO), whereby countries are encouraged to adapt their health financing systems to achieve Universal Health Coverage (UHC), which means that "all people can use the promotive, preventive, curative, rehabilitative and palliative health services they need, of sufficient quality to be effective, while also ensuring that the use of these services does not expose the user to financial hardship" (6,38). The achievement of UHC is also one of the targets of the Sustainable Development Goals (SDGs) (39).
To reach UHC, a well-functioning health financing system is required to raise sufficient funds for health, with the aim to provide financial protection against catastrophic expenditures when using necessary health services (40). Financial protection should also guard the very vulnerable against unaffordability and underutilization of essential chronic NCD services. Utilization of essential services should not be compromised by basic essential needs as food, housing, safety, and education.

LMIC are already facing challenges to provide and afford health services for the increasing prevalence of NCDs of their own population (2).. The additional burden of a large number of refugees causes good organization of health systems to be of crucial concern to guarantee good quality of services and financial protection for those who are in need of these services.

There is a global increase in social protection programs which intend to empower the poorest people in developing countries (5). Several financial protection arrangements have been initiated to support the most vulnerable populations in the access and utilization of essential health services in LMIC (5,41). It is unknown how these financial arrangements can increase the utilization of NCD services by vulnerable Syrian refugees in Jordan. By

studying financial arrangements in comparable situations, this study intends to obtain good practices from literature in order to formulate recommendations to MOH and UNHCR on how financing arrangements can be useful in Jordan to increase the utilization of NCD services among non-camp Syrian refugees.

The research question of this study is the following: Is it possible to improve financial protection for non-camp Syrian refugees in Jordan related to the utilization of NCD services?

2.3 Study Objectives:

2.3.1 Main objective:

To study potential financial protection mechanisms in order to increase the utilization of NCD services among non-camp Syrian refugees in Jordan and to make recommendations for MOH, UNHCR and NGO's.

2.3.2 Specific objectives:

1. To describe the general health financial arrangements for non-camp Syrian refugees in Jordan and how they influence the utilization of NCD services among Syrian refugees in Jordan.
2. To describe and evaluate the use and effectiveness of financial protection arrangements for non-camp Syrian refugees in Jordan and other non-camp refugees and displaced populations in LMIC for the use of NCD and health services.
3. To discuss in which way financial protection arrangements could be useful in Jordan for non-camp Syrian refugees to increase the utilization of NCD services.
4. To formulate recommendations to MOH and UNHCR on mechanisms to increase financial protection for non-camp Syrian refugees in the utilization of NCD services in Jordan.

2.4 Methodology

2.4.1 Research design/study approach

To accomplish these objectives, a narrative literature review was carried out using published peer reviewed literature and grey literature on financial arrangements used to progress towards UHC for refugees.

2.4.2 Search strategy and data sources

Peer reviewed literature was searched through the key databases like PubMed, Google Scholar, and VU library. Articles are screened based on relevance to the objectives and inclusion criteria.

Grey literature was searched for published and unpublished reports, demographic health surveys, and policies of government and NGO's using Google as search engine as well as different National and International websites (Health Management Information Systems, Ministry of Health) as well as websites from humanitarian agencies (UNHCR), WHO, the World Bank and Overseas Development Institution (ODI).

References of selected literature were reviewed to obtain additional relevant literature.

2.4.3 Inclusion and exclusion criteria

Studies in English with access to full text, discussing financial arrangements used to increase the utilization of health services were included in this study with additional inclusion criteria for the different specific objectives.
For specific objective 1, only literature from the start of the Syrian crisis in March 2011 till November 2017, concerning non-camp Syrian refugees in Jordan describing the utilization of NCD health services are included. 'Non-camp' stands for refugees who live outside refugee camps, dispersed among the host community.
For specific objective 2, literature from January 2000 till February 2017 concerning refugees or displaced populations in LMIC describing the utilization of NCD or other health services are included.
Other inclusion and exclusion criteria are mentioned in the research table, see table 1.

2.4.4 Key words

Search strategies included key words related to humanitarian crisis, health services, NCDs and financial arrangements. Key words are used separate or in combination using Boolean operators (AND and OR). Table 1 and 2 illustrate the search strategies and main key terms used related to objective 1 and 2 of this literature review.

Specific objective 1: To describe health financial arrangements for non-camp Syrian refugees in Jordan and how they influence the utilization of NCD (health services)	
Source of literature:	- Jordan national websites: MOH - Development organizations websites: United Nations High Commissioner for Refugees (UNHCR), World Health Organization (WHO), World Bank, ODI - Databases: PubMed, Vu e-library, Google Scholar - Demographic health surveys (Syrian non-camp refugees in Jordan) - Search engine: Google - Reference list of selected literature (snowballing)
Methods:	Literature review
Key search terms: Key words are used separate or in combination using Boolean operators (AND and OR)	(Syrian refugees) AND (health services OR health care OR utilization) AND (NCD OR non-communicable disease) AND (Financ* OR cost OR financial protection OR impoverishment OR expenditure OR user fee OR out of pocket)
Inclusion criteria:	Published in English language Access to full text Adults March 2011 - till November 2017 Syrian non-camp refugees in Jordan NCD services
Exclusion criteria:	None

Table 1 Research for specific objective 1

Specific objective 2: To describe and evaluate the use and effectiveness of alternative financial protection arrangements for non-camp refugees in LMIC for the use of health services.	
Source of literature:	- Development organizations websites: UNHCR, WHO, World bank - Databases: PubMed, Vu e-library, Google Scholar, Cochrane Library - Search engine: Google - Reference list of selected literature (snowballing)
Methods:	Literature review
Key search terms: Key words are used separate or in combination using Boolean operators (AND and OR)	(refugees OR displaced) AND (health services OR health care OR utilization) AND (NCD OR non-communicable disease) AND (Financ* OR protection OR expenditure OR user fee OR out of pocket OR Cash OR Voucher OR Universal Health Coverage OR supply OR contracting OR performance)
Inclusion criteria:	Published in English language Access to full text Adults Jan 2000 - till February 2018 Non-camp refugees or displaced in LMIC
Exclusion criteria:	Syrian refugees in Jordan

Table 2 Research for specific objective 2

2.4.5 Conceptual framework

UHC can be achieved through policies affecting three health system financing functions: revenue collection, risk pooling and purchasing of goods and services. After collection and pooling of funds, these pooled funds may be used to include non-covered populations or health services or to reduce user fees to progress towards UHC, as is illustrated in the UHC cube (Figure 5) (42).

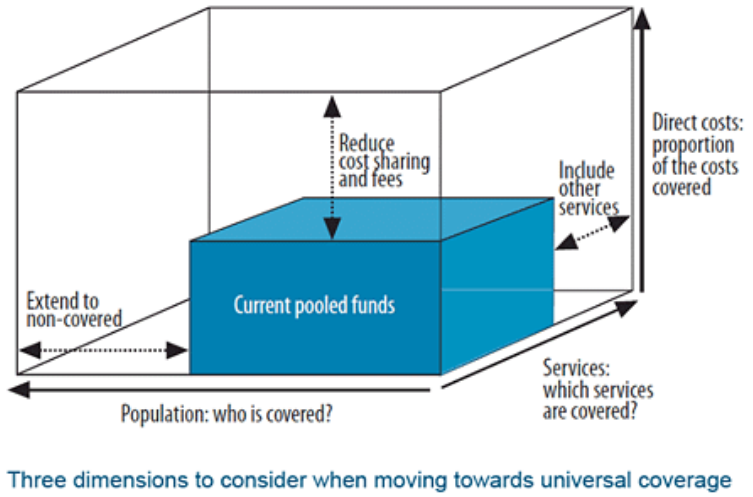

Figure 5 Universal Health Coverage Cube. Source: WHO 2010 (42)

This study will explore potential financial protection arrangements within the purchasing function and how they may influence the utilization of NCD services by vulnerable non-camp Syrian refugees. When looking at the UHC cube in figure 3, financial protection arrangements can expand coverage by including vulnerable non-camp Syrian refugees and including a good essential package of NCD services, provided there is somehow a reduction of cost sharing and fees.
To analyse different financial protection arrangements for the utilization of NCD services among vulnerable non-camp Syrian refugees in Jordan, a framework will be used for this study. A literature search yielded a few important frameworks for health financing policies, like Kutzin 2008 and 2013 and OASIS 2010 which are used for systematic and broad analyzation of a country's health financing system to achieve UHC (43–45). But to specifically analyse the effectiveness of potential financial protection arrangements, a conceptual framework was created for this study, which is illustrated in figure 4. This framework is inspired by the analytical framework from Jacobs et al (2012) (46), which is included in Annex 1. The framework of Jacobs et al helps to identify and analyse interventions that address access barriers to health care in LIC. They combined the various dimensions of access barriers (geographical accessibility, availability, affordability and acceptability) with different demand side and supply side interventions (46). This analytical framework from Jacobs et al was adapted for this study to merely focus on potential financial protection arrangements that address affordability as access barrier, and is illustrated in figure 6.
The framework for this study illustrates that a source provides financial support for demand side financial arrangements (DSF) like conditional cash transfers (CCT), unconditional cash transfers (UCT) or vouchers. These three types of DSF are frequently grouped as "cash-based interventions" in humanitarian settings and aim to increase the utilization of services by providing financial protection through financial incentives to the beneficiary (47).
The framework also illustrates that a source may provide financial support for supply side arrangements as well. Supply side financial arrangements (SSF) consists of measures to make health services free or less expensive. For instance, a funding source can ask a specific health facility to provide NCD services to Syrian refugees for free, by compensating for their loss of income. This study used fee exemption, contracting and pay for performance within the SSF (41,48,49).

The framework illustrates that the specific types of DSF and SSF intend to lead to improved utilization of services for non-communicable diseases with protection from impoverishment caused by using NCD health services as well as financial protection from low utilization of these services. The outcomes of these financial arrangements will then be evaluated by reduced effect on OOP, increased use of provider consultations and increased reception of medicine.
The demand side and supply side financial arrangements are further described in detail in chapter three, section 3.2.1., in table 5 and table 6.

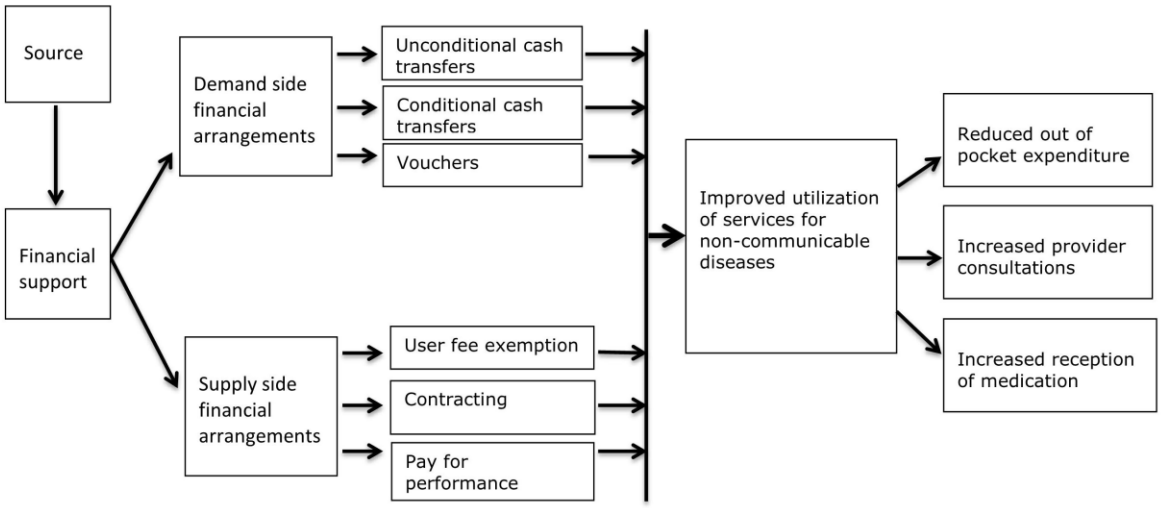

Figure 6 Conceptual framework for analysing financial protection arrangements. Adapted from Jacobs et al 2012 (46)

2.4.6 Limitations of the study

The limitation of word count guided the depth of this thesis and only studies in English language were included which may have left out some information.

There is a variation in use of terminology, specifics and conditions with regard to the of the different financial arrangements, variation in applied methodology of research and in choice of study outcomes among available studies, which limits justifiable comparisons between included studies. For this reason, this study will give a narrative presentation of the study findings.

Due to limited availability on literature from humanitarian settings or from the region, literature from several LMIC around the world with different contextual factors were included, which may not be generalizable for the Jordanian context.

Chapter 3 Study findings

This chapter presents the study findings.

3.1 General health financial arrangements for non-camp Syrian refugees in Jordan and its influence on utilization of NCD services.

This first subchapter answers the first specific objective with an overview of household welfare, estimated NCD prevalence and general health financing arrangements concerning Syrian non-camp refugees in Jordan, and how this impacts their expenditure on health and utilization of NCD services.

3.1.1 Syrian household welfare

In 2014, UNHCR commissioned a study into the health status and health care access among Syrian refugees in Jordan, which was implemented through a two-stage cluster sample survey among 1550 registered "non-camp" Syrian refugee households using probability proportional to size sampling.

Compared to 14,5% of the Jordanians, there is a high percentage of 85%-90% of the registered Syrian refugees who live below the Jordanian poverty line, with 56% rated as high to severely vulnerable (34). Syrians reported a mean monthly household income of JD 228 (321 USD) and expenditure of JD 472 (665 USD) in 2014 confirming their financial fragility (35). On average 60% of expenditure went to housing and food, and nearly 10% to health (35). Thousands of refugees have difficulties to pay rent and half live in inadequate dwellings (36). Since the change of the free health care policy, Syrian refugees reported 17% high to severe health care expenditure, with 10% indicating even more than 25% of their expenditure going to health, and 15% were found to be severely vulnerable concerning the ability to access health services (37). Average household expenditure on health was 57 JOD (80 USD), of which 32 JOD (45 USD) on provider consultation and 25 JOD (35 USD) on medication (50).

3.1.2 Prevalence of chronic health conditions among Syrian adults

Surveys from 2014 and 2015 revealed that 40 to 50% of registered non-camp Syrian refugee households have one or more adults with NCDs, most commonly hypertension and diabetes with prevalence rates around 10 and 6% respectively (31,32,35,51). Especially Syrians aged 40 years or older reported high prevalence rates, where hypertension was the highest with a prevalence of more than 70% (31,35), illustrated in table 2. Cardiovascular conditions were reported in 13,7% as primary reasons for hospitalization (31,35).

	Survey Total N	Hypertension (N = 3277)		Cardiovascular Disease (N = 1289)		Diabetes (N = 1970)		Chronic Respiratory Disease (N = 790)		Arthritis (N = 2187)	
		N	% (95 % CI)	N	% (95 % CI)	N	% (95 % CI)	N	% (95 % CI)	N	% (95 % CI)
Households where any member(s) have condition	1550	408	26.3 (24.0–28.8)	190	12.3 (10.6–14.2)	250	16.1 (14.4–18.0)	213	13.7 (12.0–15.7)	302	19.5 (17.3–21.9)
Prevalence by Age Group											
0–17 years	5147	6	0.1 (0–0.2)	20	0.4 (0.1–0.7)	8	0.2 (0.0–0.3)	153	3.0 (2.1–3.8)	18	0.3 (0.1–0.6)
18–39 years	3019	60	2.0 (1.4–2.6)	25	0.8 (0.5–1.2)	26	0.9 (0.5–1.2)	66	2.2 (1.6–2.7)	75	2.5 (1.9–3.1)
40–59 years	1040	220	21.1 (18.6–23.7)	78	7.5 (5.9–9.2)	125	12.0 (10.0–14.0)	39	3.8 (2.5–5.0)	154	14.8 (12.5–17.1)
60+ years	374	195	52.1 (46.5–57.7)	80	21.4 (17.0–25.8)	121	32.4 (27.3–37.4)	22	5.9 (3.2–8.6)	85	23.7 (18.1–27.3)
Adult Prevalence[a]	4433	475	10.7 (9.8–11.7)	183	4.1 (3.5–4.7)	272	6.1 (5.5–6.8)	127	2.9 (2.3–3.4)	314	7.1 (6.2–7.9)

[a]"Adult" defined as individual over 17 years old

Table 3 Age specific NCD prevalence non-camp Syrian refugees in Jordan. Source: Doocy 2015 (31)

3.1.3 Health financial arrangements for Syrian refugees

Initially, registered Syrian refugees had free access to public primary, secondary and tertiary health services as well as government hospitals through referral from public health centres (52). This led to overcrowding of health facilities, the main reason for Jordanians to experience difficulties in accessing health care (53). To improve equitable access of public health services between Jordanians and Syrian refugees, the free policy changed in November 2014, where after Syrian refugees needed to pay subsidized rates of 35-60%, like uninsured Jordanians.

3.1.4 Health seeking and utilization of NCD services among Syrian refugees

NCDs care-seeking rates were as high as 84.7% among registered non-camp Syrian refugees. Approximately one out of five adults mentioned non-communicable diseases and other chronic conditions as primary reason for seeking health care in 2014 (32,35). NCD care was sought for 53,9% in the public sector, 29,6% in the private sector and 16,6% in charity and NGO facilities as is illustrated in table 4 (32,35,54).

	N	Sought Care for a Chronic Condition [a]	Sector in Which Most Recent Care Was Sought [b]		
			Public	Private	Charity/NGO
		% (95% CI)	% (95% CI)	% (95% CI)	% (95% CI)
All NCDs	1,363	84.7 (81.6,87.3)	53.9 (49.2,58.5)	29.6 (25.7,33.7)	16.6 (13.1,20.8)
HT	408	87.7 (83.8,90.8)	54.2 (48.1,60.2)	28.9 (23.9,34.5)	16.9 (12.4,22.5)
Cardio. Disease	190	85.3 (79.2,89.8)	49.4 (40.9,57.9)	35.6 (28.5,43.5)	15.0 (10.0,22.0)
Diabetes	250	87.2 (81.8,91.2)	59.2 (51.8,66.2)	21.6 (16.0,28.3)	19.3 (14.3,25.5)
Chronic Resp. Disease	213	87.8 (83.1,91.3)	57.5 (50.1,64.6)	30.6 (24.1,38.1)	11.8 (7.7,17.8)
Arthritis	302	75.8 (69.8,80.9)	48.5 (41.2,55.7)	33.0 (26.6,40.1)	18.5 (13.6,24.7)
p-value for comparison by condition		---		0.024	

Non-communicable diseases (NCDs); Hypertension (HT); 95% Confidence Interval (95 CI); Non-governmental organization (NGO).

[a] As a percent of total number of index cases reporting diagnosis of condition.

[b] As a percent of those seeking care in Jordan for condition.

Table 4 NCD care received by registered non-camp Syrian refugees in Jordan. Source: Doocy 2016 (54)

There was a high percentage of diabetic patients who sought care from the public sector, which was reflected by visitations to the primary health care

centre and the government comprehensive centre. Public and private hospitals were most frequently visited by those with cardiovascular disease. These differences in health seeking behaviour between major NCDs are illustrated in figure 7 (35).

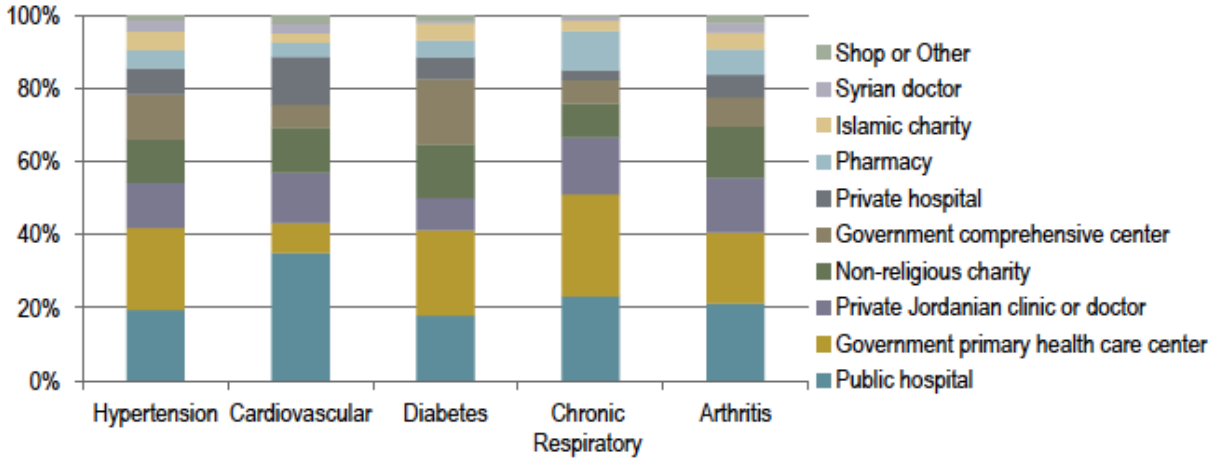

Figure 7 Health Facility Utilization for Chronic Health Conditions. Source: UNHCR 2014 (35)

3.1.5 NCD health care expenditure by Syrian refugees

In 2014, 31,6% of NCD care seeking patients mentioned provider payments at an overall mean cost of 18,8 USD (median 0). For those who paid, the mean cost was 59,2 USD (median 14), with highest fees for diabetes and cardiovascular disease, more than 100 USD (median 14 and 21 respectively). Health seeking percentages for different NCDs are illustrated in figure 8. NCD costs represented a high proportion of 18% of their monthly household income (54).

			Cost of Consultation (USD)			
		Paid Provider for Consultation [b]	Overall		Among Cases that Paid for Care	
	N	% (95% CI)	Median	Mean (95% CI)	Median	Mean (95% CI)
All NCDs	1,363	31.6 (27.7,35.8)	0	18.8 (5.9,31.6)	14	59.2 (19.2,99.4)
HT	408	30.7 (25.8,36.1)	0	18.3 (0,41.9)	14	59.6 (0,136.1)
Cardio. Disease	190	32.1 (24.5,40.8)	0	35.4 (0,86.4)	21	110.3 (0,270.6)
Diabetes	250	26.1 (19.8,33.7)	0	28.3 (0,66.7)	14	108.6 (0,253.5)
Chronic Resp. Disease	213	32.6 (26.2,39.8)	0	6.2 (4.4,8.0)	14	18.9 (14.8,23.1)
Arthritis	302	37.1 (30.7,44.0)	0	8.7 (4.7,12.8)	14	23.5 (13.5,33.6)
p-value for comparison by condition		0.146		0.453		0.386

95% Confidence Interval (95 CI); Non-communicable Diseases (NCDs); Hypertension (HT).

[a] All cost figures are presented in U.S. Dollars.

[b] As a percent of those seeking care in Jordan for condition.

Figure 8 OOP expenditures for most recent NCD care among Syrian refugees in Jordan (a). Source: Doocy 2016 (54)

For all NCDs, 68,4% paid for consultation in the private sector (mean 54,6 USD), 14,7% in the public sector (mean 4,4 USD) and 19,5% at NGOs and charity facilities (mean 1,7 USD)(54). Figure 9 outlines the percentage of patients that paid together with the median and mean OOP by NCD in the public and private sector. Mean OOP for cardiovascular disease (94,3 USD) and diabetes (103,9 USD) were high in the private sector with median payments of 14 USD (54).

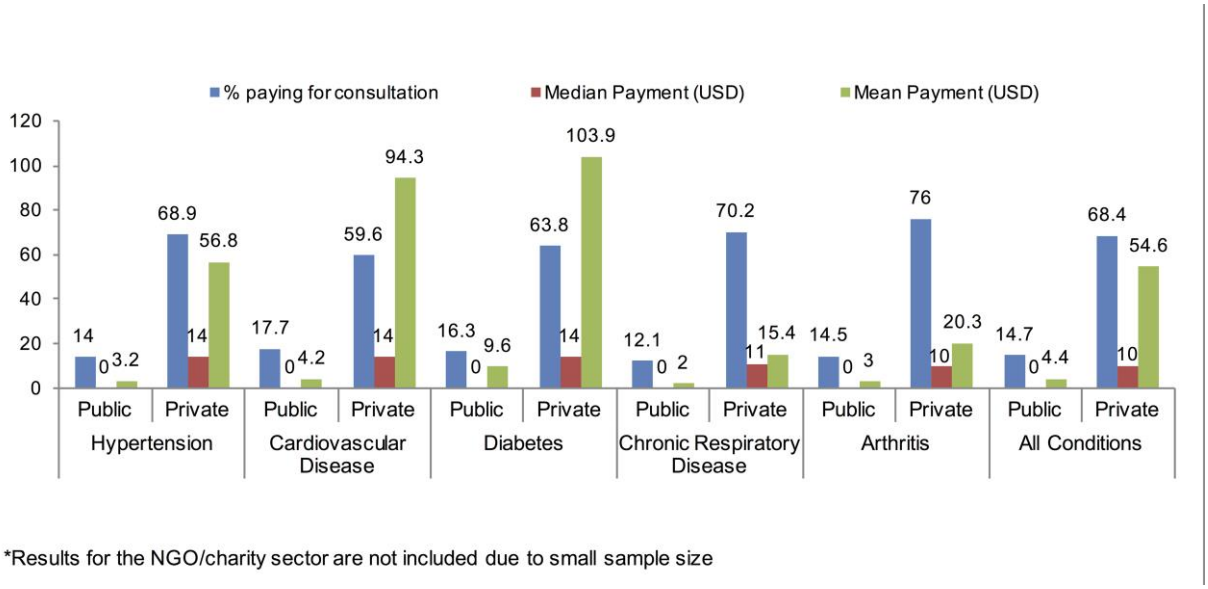

Figure 9 OOP expenditures for most recent NCD care among Syrian refugees in Jordan (a). Source: Doocy 2016 (54)

3.1.6 Financial factors influencing utilization of NCD services among non-camp Syrian refugees

In 2014 cost was the main reason for not seeking care, ranging from 51,7% for diabetes to 65,3% for hypertension. Figure 10 illustrates the reasons for not seeking care for different NCDs (35,54).

After the policy change, average first consultation payments increased with around 40%. Inability to access NCD services increased from 24% to 58% in 2015 (51) and was mentioned by one third in 2016, where fees remained the principle barrier (75%) (55).

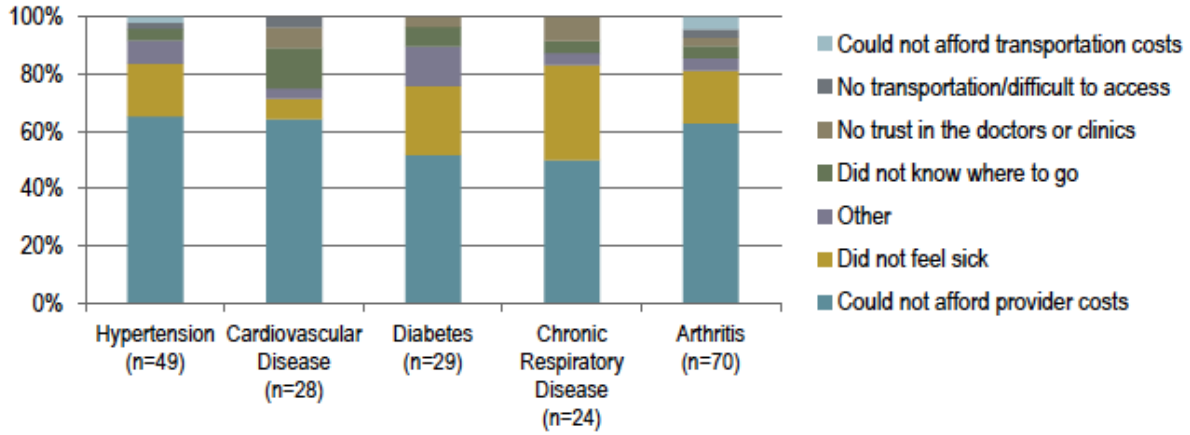

Figure 10 Reason for not seeking care for chronic conditions. Source: (35)

3.2 Explanation of alternative demand side and supply side financial protection arrangements

This subchapter will describe the different financial protection arrangements that included in this study.

3.2.1 Demand side financial arrangements

Demand side financial arrangements transfer the purchasing power to specified beneficiaries to ameliorate access to regular preventive health services whereby the demand of these health services is also stimulated (56). The most frequently used DSF arrangements for humanitarian settings are cash-based interventions, which may exist of Conditional Cash Transfers (CCTs), Unconditional Cash Transfers (UCTs), and vouchers (47). These types of financial arrangements are included in this study and explained in table 5 which is adapted from UNHCR 2015 (47).

3.2.2 Supply side financial arrangements

Supply side financial arrangements transfer money directly to the service providers, and users are exempted from paying user fees. SSF that will be used for this study are described in table 6.

Demand-side financial arrangements		
Types of cash-based interventions for refugees and other persons concern		
Cash transfers	The provision of money to refugees and other persons of concern (individuals or households) intended to meet their basic needs for food and non-food items or services, and to facilitate self-reliance and/or durable solutions, e.g. return, reintegration, local integration or resettlement.	
Vouchers	A coupon that can be exchanged for a set quantity or value of goods, denominated either as a cash value (e.g. USD15) or pre-determined commodities or services (e.g. 5 kg maize; milling of 5kg of maize). They are redeemable with pre-selected vendors or at 'fairs' organised by the agency.	
Unconditional cash	A direct cash grant given to recipients with no conditions attached or work requirements. There is no requirement to repay any of the money, and recipients are entitled to use it however they wish. Multi-purpose grants are unconditional if there is no qualifying condition.	
Conditional	Eligibility conditions	The cash or voucher is received after a condition is fulfilled (e.g. children enrolled at school, participation in training, etc). Cash for work, where payment (cash or vouchers) is provided as a wage for work (usually in public or community programmes), is a form of conditional cash transfer.
	Use conditions	A condition is attached as to how the transfer is spent (e.g. on food, rent or shelter materials, or waiver of payment for school fees). Vouchers are often conditional as they can only be redeemed through contracted individuals or businesses for pre-determined types of goods and services.

Table 5 Terminology of examples of demand side financing Source: Adapted from UNHCR 2015 (47)

Supply-side financial arrangements	
User fees exemption	Exemption of charges levied at the point of use for any aspect of health services, and may include: registration fees, consultation fees, fees for drugs and medical supplies or charges for any health service rendered. Fees can be paid for each visit or can encompass a whole episode of illness.
Contracting	The provision of healthcare services on behalf of the government by non-state providers to deliver a range of clinical or preventive services to a specified population. A contract document usually specifies the type, quantity and period of time during which the services will be provided on behalf of the government. A typical example for developing countries consists of hiring a non-governmental organisation to provide primary health care for a specific geographic area, such as a district.
Pay for performance	Incentives targeted at providers include pay-for-performance, budgets that reward providers for savings or penalise them for overspending, and incentives to practice in underserved areas or to select careers where there is a shortage of health professionals. It can also reward a wide range of measurable actions, including health outcomes, delivery of effective interventions (for instance immunisation), utilisation of services (such as prenatal visits or births at an accredited facility) and quality of care.

Table 6 Terminology of examples of supply side financing Source: based on Lagarde 2009 and Witte 2012 (48,49)

3.3 Limited findings and expansion of search strategy

This subchapter explains the limitations of the findings of the initial search strategy and the choice for expansion of the search of this study.

3.3.1 Limited findings

From the initial search strategy, 24 references were selected after reading the titles, abstracts or main contents. Thorough reading of selected references revealed that studies describing the impact of financial protection arrangements on the utilization of NCD services or other health services among non-camp refugees or displaced people were limited, of low quality and difficult to compare due to essential differences in study characteristics and context (57–62).

Only one article concerned NCD-care among Iraqi and Syrian refugees, describing the financial support for cancer treatment through exceptional care committees in Syria from 2009 till 2011 and in Jordan between 2009 and 2012, but information on outcomes related to utilization of health services were lacking (63).

Pega et al (2015) and Doocy et al (2016) wrote the only two systematic reviews on financial protection arrangements in humanitarian settings. Included studies showed limitations in methodology for justifiable inclusion and heterogeneity in the choice of study outcomes, and only Pega et al described health care utilization as a study outcome (64,65).

Except from a mixed-method research among Syrian refugees in Jordan (50), none of the remaining studies focussed on health care utilization as outcome of studied financial protection arrangements.

3.3.2 Expansion of the search strategy

In order to approach the research question, the search strategy was expanded by including other vulnerable populations in the study population, which are defined as the chronically poor, economically vulnerable or socially marginalized, in need of health services in LMIC. Their vulnerability in utilizing health services may to some extent be comparable to the vulnerability of the initial study population of non-camp refugees and displaced (5). Inclusion criteria were supplemented with literature concerning adults and other preventive or chronic health services because NCDs mainly affect adults and require chronic prevention strategies for management in the primary care. Other inclusion criteria remained the same. The expanded search strategy is illustrated in table 7.

Specific objective 2 expanded: To describe and evaluate the use and effectiveness of alternative financial protection arrangements for vulnerable groups in LMIC for the use of health services.	
Source of literature:	- Development organizations websites: UNHCR, WHO, World bank - Databases: PubMed, Vu e-library, Google Scholar, Cochrane Library - Search engine: Google - Reference list of selected literature (snowballing)
Methods:	Literature review
Key search terms: Key words are used separate or in combination using Boolean operators (AND and OR)	(vulnerable) AND (health services OR health care OR utilization) AND (NCD OR non-communicable disease) AND (Financ* OR protection OR expenditure OR user fee OR out of pocket OR Cash OR Voucher OR Universal Health Coverage OR supply OR contract OR performance) (vulnerable) AND (health services OR health care OR utilization) AND (Financ* OR protection OR expenditure OR user fees OR out of pocket OR Cash OR Voucher OR "Universal Health Coverage" OR supply OR contract OR performance)
Inclusion criteria:	Published in English language Access to full text Adults Jan 2000 - till February 2018 Vulnerable people as defined in text. NCD and other preventive or chronic health services LMIC
Exclusion criteria:	Refugees and displaced

Table 7 Additional research table for expansion of search strategy for specific objective 2

The new search for DSF yielded 25 references, of which 2 studies involved NCDs, and for SSF arrangements 18 references, with one study involving

NCDs. Articles were screened on relevance. Priority was given to systematic reviews, since these were many in quantity and captured a large amount of research from different settings which had a variety in used methodology and low quality on evidence. The systematic reviews already selected articles based on quality and compared relevant evidence on outcomes.
Though there might be differences in context of the studies and organization and management of each of these DSF and SSF programs, these studies were selected because they describe financial arrangements that were to increase the access and utilization of preventive or chronic health services among adults of vulnerable populations, to approach the study population of this study.

3.4 Financial protection arrangements to increase health service utilization among non-camp refugees, displaced and vulnerable populations in LMIC

This subchapter describes the use of financial protection arrangements and its effectiveness on health service utilization. The findings are divided in three separate sections according to the studied population groups: Syrian non-camp refugees in Jordan, non-camp refugees and displaced populations in LMIC and vulnerable populations in LMIC. Depending on available information, the different DSF and SSF, and the outcomes OOP, provider consultations and reception of medicine will be evaluated in a narrative way.

3.4.1 Use and effectiveness of alternative financial protection arrangements for non-camp Syrian refugees in Jordan

3.4.1.1 Use of demand side financial arrangements for non-camp Syrian refugees in Jordan

Several cash-based interventions were initiated to support the most vulnerable Syrian refugees in Jordan. Of these, UNICEF and UNHCR are the only organizations that distribute unconditional cash transfers on a regular basis for an unlimited length of time. UNICEF's Child Cash Grant programme provides 28 USD per child. Mid-2012 UNHCR launched a cash
transfer for vulnerable urban Syrian refugees to provide protection and services, distributing approximately 75-400 USD a month depending on household size. This UNHCR cash transfer accounted for 75% of all cash transfers in Jordan in 2014 and gave support to 40.000 families in 2016, around a quarter of the Syrian refugee population (61,66,67).
UNHCR's "Cash for Health" programme assists in paying for short-term secondary and tertiary health care when good longer-term prognosis is expected. Over 50% is geared to life threatening emergencies (50). The UNHCR's Exceptional Care Committee decides for which health care costs the beneficiary will receive cash assistance. In 2012 this committee approved funding in 65,2% and almost one quarter of all applications concerned breast cancer in 2012 (63).

Jordan makes use of a modern cash assistance system from which beneficiaries can receive cash through a card-less biometric identity verification with iris scanning at ATM machines (67).

Literature did not reveal available conditional cash transfers for Syrian refugees in Jordan.

Since July 2012 United Nations World Food Programme (WFP) has distributed electronic food vouchers with monthly transfer values of 14 USD to 28 USD for more than 560.000 vulnerable non-camp Syrian refugees in Jordan (68). Literature did not reveal any vouchers that were specified for receiving health services or medicine.

3.4.1.2 Effectiveness of demand side financial arrangements for non-camp Syrian refugees in Jordan

This section will present the findings of one randomized controlled trial, one mixed method and one qualitative research on existing demand side financial protection arrangements for registered non-camp Syrian refugees in Jordan. The mixed method and qualitative research were included to get more information on the perception of beneficiaries on DSF they were benefiting from.

In 2016 WPF performed a randomized control trial with 3123 non-camp Syrian refugees in Jordan and Lebanon, randomly selected as beneficiary cases to find out whether a food-restricted voucher or UCT (28 USD per month) was more effective in providing food security for refugees and to study the expenditure patterns of these beneficiaries.
Syrian refugees receiving UCT had similar or better food security and increased access to fresh food compared to those who received food-restricted vouchers.
In both countries, expenditure on food (38-45%) and shelter (24-30%) were prioritized. Spending on health care was similar and comparable between both countries and beneficiary groups. Household spending on non-food items of both are illustrated in figure 11 for both groups. There were no significant differences in access to health services and medicine between unrestricted cash and voucher beneficiaries which is illustrated in figure 12 (57).
The majority preferred unrestricted cash because of its convenience regarding flexibility in use and its potential to lead to more household savings than vouchers, since cash beneficiaries were able to negotiate about food related prices and search for discounts.

Jordan Lebanon

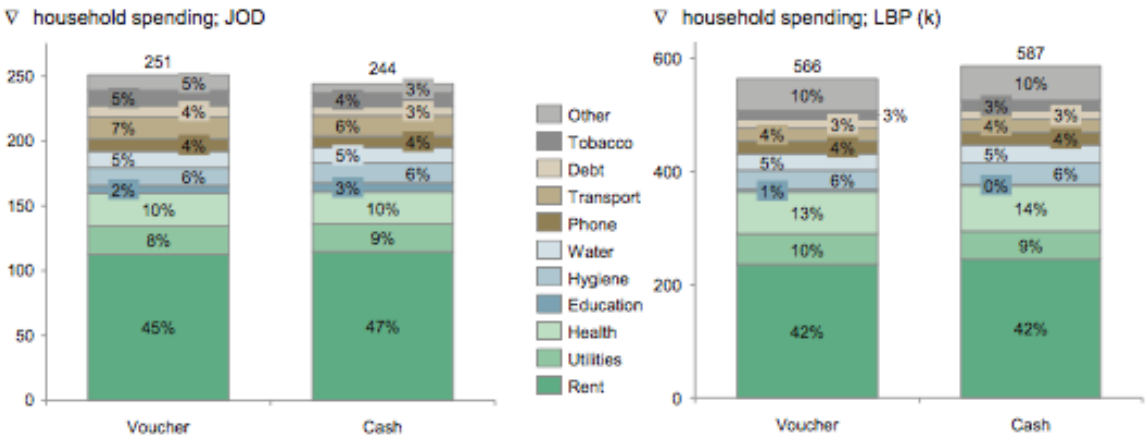

Figure 11 Household spending on non-food items in Jordan and Lebanon. Boston Consulting Group 2017 (57)

Access to health care

Jordan Lebanon

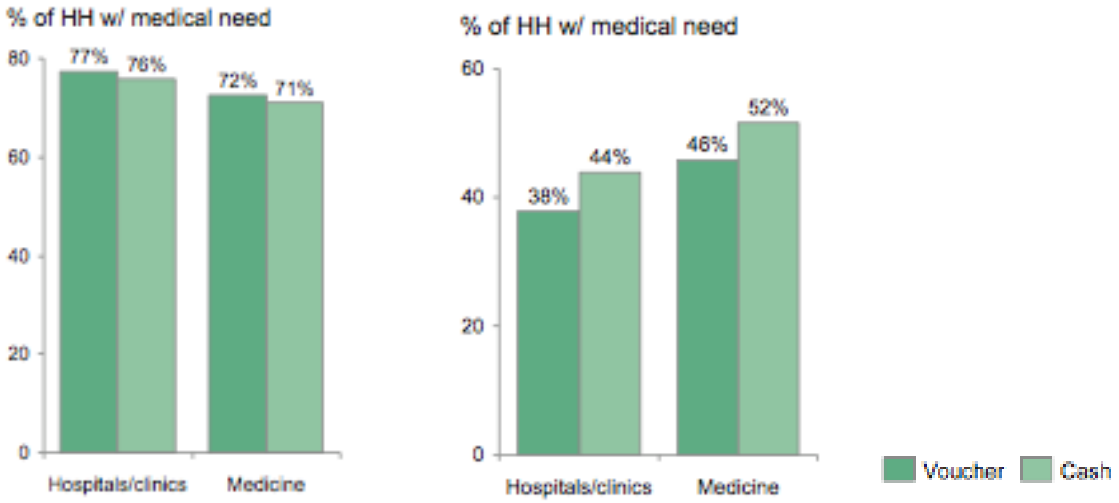

Figure 12 Access to health care by beneficiaries in voucher and cash groups in Jordan (after 8 months) and Lebanon (after 3 months). Source: Boston Consulting Group 2017 (57)

Hamad et al did a mixed method study, a literature review and rounds of quantitative and qualitative data collection from 2114 randomly selected non-camp Syrian households in Jordan between December 2016 and March 2017 and found that spending on adult health was not increased by cash assistance, and that access of health care was often constrained by cost for transportation and medication (50).

Beneficiaries who received the full combination of cash transfers from UNHCR and UNICEF as well as vouchers from WPF, experienced a rise in mean household income from just 58 JOD (52 USD) /month to 287 JOD (405 USD)/month (figure 13) (50). Figure 14 illustrates that the median household income was 0 JOD/month.

Figure 15 shows that after receiving cash assistance, median expenditures on health doubled. Cash assistance increased expenditure on healthcare for

children but not for adults compared to those who received only WPF vouchers. Effects of cash transfers on reception of medicine was not reported (50).
The same research found that with a full package, of 2 cash assistance and a WPF voucher with a value of 335 JOD (472 USD), 30% of the households were still in depth every month, and almost 60% of those receiving half package of 220 JOD (310 USD) every month, 70% reported to be in debt (50).

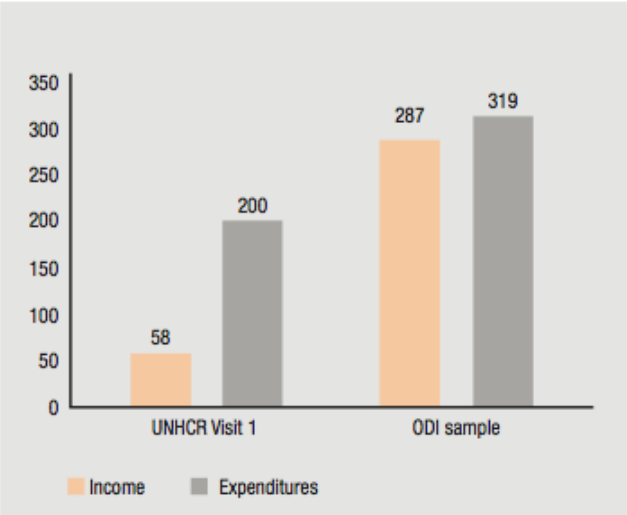

Figure 13 Mean household income and expenditure, at UNHCR baseline and at ODI sample (JOD/month) Source: Hamad 2017 (50)

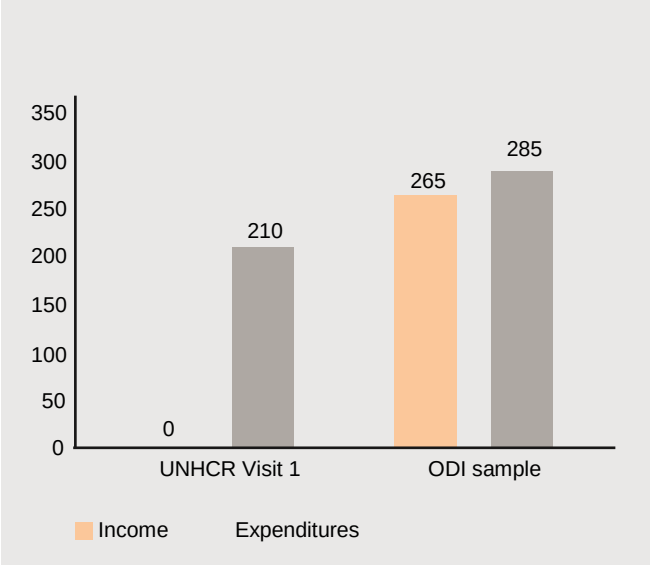

Figure 14 Median household income and expenditure, at UNHCR-baseline and at ODI-sample (JOD/month). Source: Hamad 2017 (50)

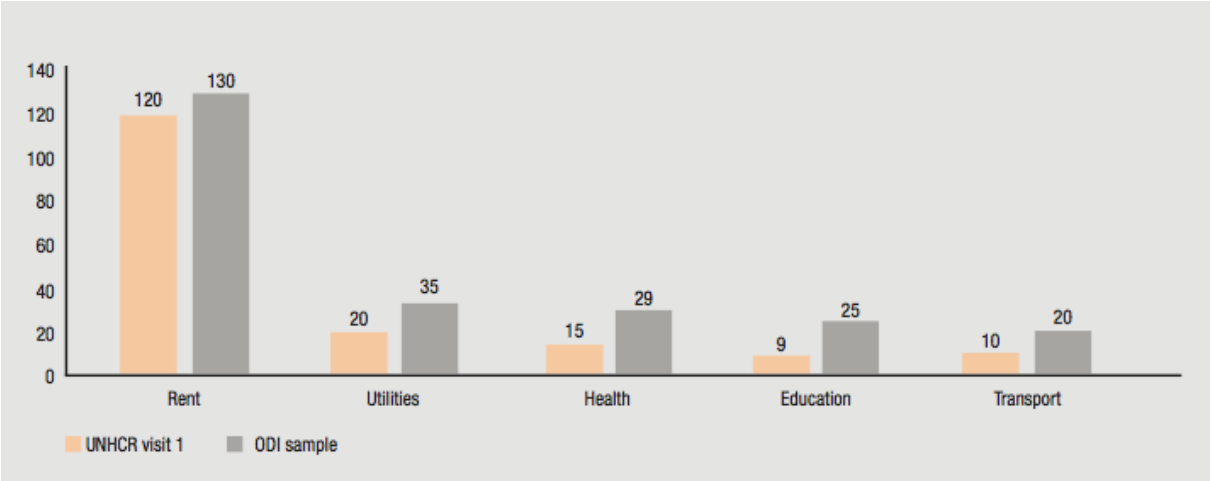

Figure 15 Median household income and expenditure, at UNHCR-baseline and at ODI-sample (JOD/month). Source: Hamad 2017 (50)

Hagen-Zanker et al (2016) performed a qualitative research to determine the potential of UNHCR cash transfers to assist urban refugees in their access of health services in ongoing crises. For this study, 60 in depth-interviews were conducted with a non-representative sample of Syrian refugees from four urban areas receiving cash assistance, and 25% of these beneficiaries mentioned that cash assistance empowered them to access health care and that this effect was the most important perceived benefit, though evidence on increased access among adults was lacking. Regular cash transfer was helpful for mainly small ailments, and insufficient for all health needs and especially for chronic disease according to more than 66% of the respondents (59,60,69).

Once cash transfer was used for health services, beneficiaries chose for the cheapest option, which often meant buying medicine straight from the pharmacy or consulting nearby private providers to avoid barriers like long waiting time, lack of medication and cost of transportation when visiting the discounted public services. Beneficiaries reported to spend a small portion on medicine, most was destined for rent and utilities (figure 16) (59).

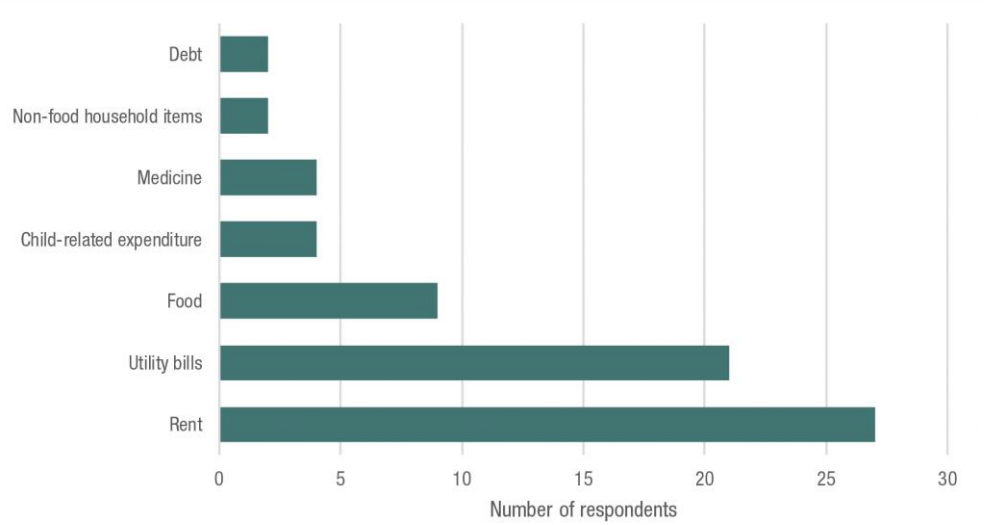

Figure 16 UNHCR cash transfer study: amongst the responding beneficiary Syrian refugees, the majority spent the cash transfer on rent and utility bills. Note: The responses are based on in-depth interviews only; multiple responses were possible Source: Hagen-Zank

3.4.1.3 Use and effectiveness of supply side financial arrangements for non-camp Syrian refugees in Jordan

For registered Syrian refugees in Jordan there was a policy of free health services between May 2012 and November 2014. No other used SSF were found with the literature search. As already described in Chapter 3.1.6, during this free policy period, there was less OOP for health service use and NCD care utilization was higher. Percentage of inability to access NCD services of was 24% during free policy period versus 58% after free policy withdrawal (51).

3.4.2 Use and effectiveness of alternative financial protection arrangements for non-camp refugees and displaced populations in humanitarian settings

3.4.2.1 Use and effectiveness of demand side financial arrangements for non-camp refugees and displaced populations in humanitarian settings

Literature did not reveal any information on use of DSF for utilization of NCD services, nor on use of CCT in humanitarian settings. Vouchers were mainly used for the purchase of food items (64), and UCTs for basic needs, livelihoods and economic activities (70).

In a Cochrane systematic review, Pega et al (2015) evaluated the effect UCT on health service use and health outcomes in humanitarian settings and found qualitative information suggesting that a part of cash assistance is spent on health services and medicine, probably related to curative care (65). The systematic review from Doocy et al (2016) concluded that UCT may lead to more household savings than vouchers, but strong effect of cash-based interventions on individual and household outcomes in humanitarian emergencies was lacking. Health service utilization was not

among the analysed outcomes (64). Based on limitations in study characteristics and outcomes, both studies concluded that evidence on health care utilization from financial protection arrangements could not be retrieved (64,65).

3.4.2.2 Use of supply side financial arrangements for non-camp refugees and displaced populations in humanitarian settings

Literature search didn't reveal any SSF arrangements for refugees or displaced populations in LMIC.

3.4.3 Use and effectiveness of alternative financial protection arrangements for vulnerable populations in LMIC

3.4.3.1 Use and effectiveness of demand side financial arrangements for vulnerable populations in LMIC

UCTs are most frequently implemented in Sub-Saharan African countries, for maternal care and Human Immunodeficiency Virus (HIV) and tuberculosis. (71)

CCTs were initiated in Latin America since 1990s, and most of the literature is from that region (71). When used within adult health care, CCTs were mainly used for SRH and maternal health (71–82). CCTs aim to increase access and utilization of preventive services by reducing the financial barrier and introducing conditions, like regular visitations for antenatal care and attending health related lectures (83). Some programs have supported the management of tuberculosis and HIV (84,85)

Voucher programs have mainly been introduced to increase access to services sexual and reproductive health (SRH) and maternal health (78,79,85–87)

A large number of systematic reviews have assessed the effectiveness of numerous cash based for vulnerable populations in LMIC. For this study, only literature concerning health care for adults were analysed and discussed. In these studies, a range of health outcomes were used, most frequently related to sexual reproductive, and maternal (71–82). Literature revealed only one study based on an experimental comparison that showed some evidence on reduction in obesity, hypertension and diabetes in female adults. This was in a long term CCT program in Mexico, where attendance to monthly health talks were required (88).

There is some accumulation of evidence that UCT can reduce monetary poverty and increase household total expenditure, especially when implemented for long-term social protection in stable low-income settings (71,89,90). After debts are paid, people mention to use remaining cash for fees related to chronic care, visitations of clinics and the purchase of medicine (91,92). There is increasing evidence from numerous countries that UCT has the potential to improve access of health services. In adult health care, this was reflected in preventive health services for pregnant

women (71) and services for tuberculosis as well as HIV (71,74,90).
In a recent Cochrane systematic review, Pega et al (2017) concluded that UCTs may not have an effect on a summary measure of health service utilization in LMIC, but UCTs may have a positive effect on health outcomes (93)

CCTs increase household income, empowers the beneficiary in self-reliance and the pursuit of basic needs, and intend to intensify the demand for better health (56,94). CCTs are effective in increasing access and utilization of preventive services but effect on health outcomes are mixed (83,73,74,77,81,89,95). Strongest evidence was found for maternal health programmes, which resulted in an increase of antenatal visitations and use of skilled birth attendance (71,73,77). CCTs in tuberculosis management had a positive impact on health care access, household food security and economic well-being (90,96).

Evidence on the relative effectiveness of UCTs and CCTs remains very uncertain (72), and conclusions about differences in effect from CCT and UCT are difficult to draw (93).

Vouchers may improve utilization of health services, as has been discovered for SRH and maternal health (74,78,79,86,87,97). Some programs showed positive effects on health outcomes, but in general these effects were mixed (73,74,87,98).

3.4.3.2 Use and effectiveness of supply side financial arrangements for vulnerable populations in LMIC

Fee exemption schemes have been introduced for maternal services in Ghana and Senegal to stimulate utilization of skilled birth attendance by introducing reimbursement rates for deliveries (48,99).
A systematic review from Lagarde et al (2011) found a positive impact on utilization of health services when user fees were removed or reduced, even though included studies showed some weaknesses in the methodology (100)

Contracting out has the potential to increase health care utilization in LMIC according a systematic review from Lagarde et al (2009), but included studies were characterised by differences in methodology and context, and therefore caused difficulties to generalize findings and draw clear conclusions (48).

PFP as a financial arrangement in LIC was analysed by Wiysonge et al (2017) by studying up-to-date systematic reviews. Based on a very low-certainty evidence from a systematic research from Witter et al (49), they concluded that it is uncertain whether PFP can ameliorate health service utilization (74), which was also the conclusion from other systematic reviews (101–103).

Chapter 4 Discussion

The usefulness of the findings concerning alternative financial protection arrangements for non-camp Syrian refugees in need of NCD care in Jordan will be analysed and discussed in this chapter.

There is a high prevalence of NCDs among Syrian refugees as well as among the Jordanian host community (10,14,24,25,31,35). A large group of Syrians seek health care for their NCDs at Jordanian health facilities. Jordan has a well-developed public and private health care system providing NCD services (15). The Jordanian policy of access to free health services for registered Syrian refugees was withdrawn in November 2014 due to overcrowding of the health system. Now Syrian refugees need to pay subsidized fees (20,21,53).
As a consequence, the utilization of NCD health services among Syrian refugees decreased and provider costs seems to be the key barrier(50,51,55).

The initial inclusion criteria of this study intended to retrieve evidence from refugee and displaced populations who live in circumstances that are most likely to resemble circumstances of non-camp Syrian refugees in Jordan. This study found that research on the impact of alternative financial protection arrangements on health care utilization for NCDs or other health problems in humanitarian settings was very limited and that used methodologies and study outcomes were difficult to compare and a barrier to provide any substantial evidence. These findings have led the decision to broaden the scope and expand the search of this study by including vulnerable populations in LMIC.

During the free policy period, a high percentage of almost 85% of the non-camp Syrian refugees were seeking care for NCDs. Among those seeking for care, 54% went to the public sector, 30% to the private sector and 17% to facilities from charities or NGOs. Between 12-18% of those visiting the public sector, and 60-76% of those who visiting the private sector paid for healthcare (32,35). Even though fees for the private sector are several times higher than the public sector, there is still a substantial proportion visiting the private sector, and among those, at least 70% is paying high mean fees of 54,6 USD, while these costs were much lower in the public sector: 4,4 USD for all NCDs. Mean costs for cardiovascular disease (94 USD) and diabetes (104 USD) were the highest, while median costs were 14 USD for both NCDs. This means that there are some Syrian refugees who pay very high fees. It is not clear if they are wealthy Syrians, or if they get money from work or have other sources of income (54).
Around 15% of the Syrian refugees do not seek health care for their NCDs, mainly because of financial constraints. It seems like there are huge differences between the most vulnerable, who are not able afford health services, and those who do pay for high cost care. It is important to find

more information on this, to be sure that financial protection arrangements are only provided for the most vulnerable, also to prevent overcrowding of the Jordanian health system again.

Around 80% of the Syrian refugees live below the Jordanian poverty line. Syrians reported a higher mean monthly household expenditure of 665 USD than income 321 USD in 2014 (35), which may be explained by receiving additional income from work or other sources (50).
When cash is given in humanitarian settings, it will lead to an increase of household income (64)(50,59,60,69). A minimum household income is necessary to meet basic needs like housing, food and utilities. Cash that is just sufficient to cover these basic needs, it rarely used for using health services (50,59,60,69)(57). When cash allows to give some financial reserves, it may be used for NCD care, but when household income is insecure, people might save their expenses on expensive chronic care for NCDs, as was confirmed by 66% of the Syrians mentioning that money was not used for chronic care for the elderly (59,60,69).

In some LMIC cash assistance resulted in an increase of utilization of health services, mainly for maternal and SRH health. In Jordan findings were mixed. One study found that spending on health had doubled, but it was assumed that this was caused by payment of increased health care costs after the policy change, and that this was not necessarily a reflection of an increase of health service utilization (50).
Except for some expenditure on child health, spending on health care for adults did not increase, even though the perception to be able to access health care services had improved (50).
It is necessary to reflect on what proportion of the living costs cash transfers allow to cover. If cash transfers are not enough to survive, it is unlikely that people will use it for health. Management of NCDs usually involves frequent regular consultations and follow up, additional recurrent diagnostic procedures and a combination of medicine, which all will increase the cost for individual NCD care. DSF arrangements might be insufficient if only a limited amount of cash is provided.

CCTs increased utilization of health services among vulnerable populations in LMIC, but it is not yet clear whether conditionality contributed to these achievements. Attending health lectures was often used as a conditionality for receiving cash and might have contributed to reductions in hypertension, obesity and diabetes in a long-term program in Mexico (88). There is still a lot of uncertainty about the evidence on the relative effectiveness of UCTs and CCTs (72) and conclusions about differences in effect from CCT and UCT are difficult to draw (93).
CCTs using health promotion as a conditionality could be effective in improving access to preventive services for specific groups of patients who need scheduled recurrent consultations for follow up and treatment for their health condition, this might also apply to patients with NCDs.

In Jordan as well as in other humanitarian settings, UCTs were used instead of CCTs. UCT programs are probably more cost-efficient, easier and faster to implement in emergency settings because there is no conditionality involved.

Vouchers may increase utilization of health services, as has been demonstrated for SRH and maternal health services in LMIC (74,78,79,86,87,97). For Syrian refugees, vouchers were distributed for the purchase of food. Combined with UCTs they were successful in increasing household income, but only when a minimum amount of cash was provided, otherwise households remained with their monthly debts (50). The majority of Syrian refugees preferred receiving UCT above vouchers, because vouchers were regarded as less flexible in use. Vouchers may not contribute as much to empowerment and liberty when compared to UCT.

Positive evidence from SSF on the utilization of health services in humanitarian settings and LMIC were very limited. User fee exemption does not seem like a viable option since the change of free policy resulted from the discontent of the host population to the bottlenecks at health facilities.
Contracting out and PFP have not shown strong evidence of positive effects on utilization of health services, and since the problem with utilization of NCD services among registered non-camp Syrian refugees is on the demand side and Jordanian health system already experienced bottlenecks in providing services for excess demand, SSF might not be a viable and sustainable solution (48,49,103).

Jordan has a wide network of public and private health facilities catering for the needs of its population who have a high prevalence of NCDs. Strategies and health promotion are targeted to address behavioural risk factors for NCDs and to reduce and manage the high prevalence of NCDs (10,14,15). There is a potential to accommodate for Syrian refugees who are in need of NCD services.
The free health care policy in 2014 caused constraints for the Jordanian population in the competition of health services (21,53). To use SSF for Syrian refugees with NCDs might not be a viable option.
Additional supply-side investments, enhancement of efficiency in use and organization of available resources should sincerely be taken into consideration when financial protection arrangements are organized for Syrian refugees. Without any additional support for the supply side, financial protection arrangements might lead to an uncontrollable overcrowding of the health care system, which may lead to depletion of medical supplies, inefficiency, lack of motivation among health care workers, reduced quality of care and eventually negative impact on NCDs for Syrian refugees as well as the Jordanian population.
Treating refugees differently might lead to bottlenecks for the host community, and leave vulnerable Jordanians unassisted.

To ensure access to services for refugees without creating more tensions with local residents and to guard equity in care, strategies are that target the whole Jordanian population including vulnerable Jordanians as well as refugees and other vulnerable groups should be taken into consideration to increase the chances of sustainability in the long run.

The limitations of this study are that it makes two main assumptions in expanding the search by including vulnerable populations in LMIC. The first assumption is that health services are comparable with NCD services. The second assumption is that vulnerable groups in LMIC are comparable with non-camp Syrian refugees in Jordan, in the sense that they both experience financial constraints for accessing health services and are in need of financial protection.
It is important to consider the possible discrepancies in these assumptions. Differences in contextual factors like social and community networks, living and working conditions, level of education, availability and accessibility of health services, general socio-economic, cultural and environmental conditions may influence health service utilization as well. These differences may also exist between different refugee populations. Comparison and generalizability of findings is difficult and should be done with caution.
While the findings of this study on financial protection arrangements for vulnerable groups in LMIC doesn't specifically focus on financial protection to increase utilization of NCD services for refugees, the retrieved information about the effect of SSF and DSF interventions on utilization of health services can give an indication about what would happen with utilization of NCD services among refugees in LMIC who face financial constraints in the use of health services.

The conceptual framework was designed to analyse if certain financial arrangements can increase the utilization of NCD services by providing financial protection, measured by an increase in provider consultations, reception of medicine and reduced OOP.
In literature used terms for DSF were not always consistent, some research would use the terms CCT, UCT and vouchers, others used terms like "cash-based approaches" without further clarification on which type of arrangement was used whereas results could not be further specified.
Included studies didn't always use provider consultations, reception of medicine or OOP as outcome measures to analyse the effect of financial protection arrangements on health service use.
OOP was rarely used as outcome measure for this purpose and for this reason OOP could not be further analysed in this study.
The choice of OOP in this study's framework was not specifically meant to be used as an outcome for health service utilization, but more as an indicator for financial protection in using health services for NCDs, which means looking at barriers to use these services. Since this study was not intended to look at impoverishment by using NCD services, OOP was preferred above CHE.

For this purpose, OOP is useful for SSF, since introduction of SSF should lead to reductions in OOP.
When DSF (UCT) is used for health service use, leads to an increase in household income (50,71,89,90), but this doesn't imply that this increase will lead to an increase in the use of health services. But when DSF (UCT, savings from vouchers) is used for health service utilisation, OOP increases, unless a voucher specified for health service utilization is used as payment. DSF (UCT) may lead to increase of household expenditures on health services (57), and thus an increase in OOP. But an increase in OOP does not always mean that there is an increase in frequency of health service utilization. It might also reflect an occasional use of expensive health services.
When DSF (UCT), is used for financial protection in the use of NCD services, reduced OOP might mean that the amount of UCT is insufficient to provide financial protection. It could also mean that there is sufficient financial protection, but that other barriers are the cause for not utilizing NCD services.
With regard to financial protection in the use of NCD services, reduced OOP might actually mean that there is insufficient financial protection. In case of use of vouchers specifically for health service utilization, then a reduction in OOP might indicate that there is some achievement in health service utilization and financial protections if vouchers are used for its purpose.
For DSF, based on the findings of this study, it may be considered to use another outcome then OOP in the framework that was used for this study. Suggestion would be measurement of the frequency of health service use in relation to household savings, since good NCD managements needs recurrent consultations with health care providers, but this could also be argued upon.
For both SSF and DSF the CHE could be added, for when costs involve urgent uncovered expensive care that leads to impoverishment. Thoughts for adaptation are visualized figure 17, where the outcome measures in blue might be more useful for DSF.

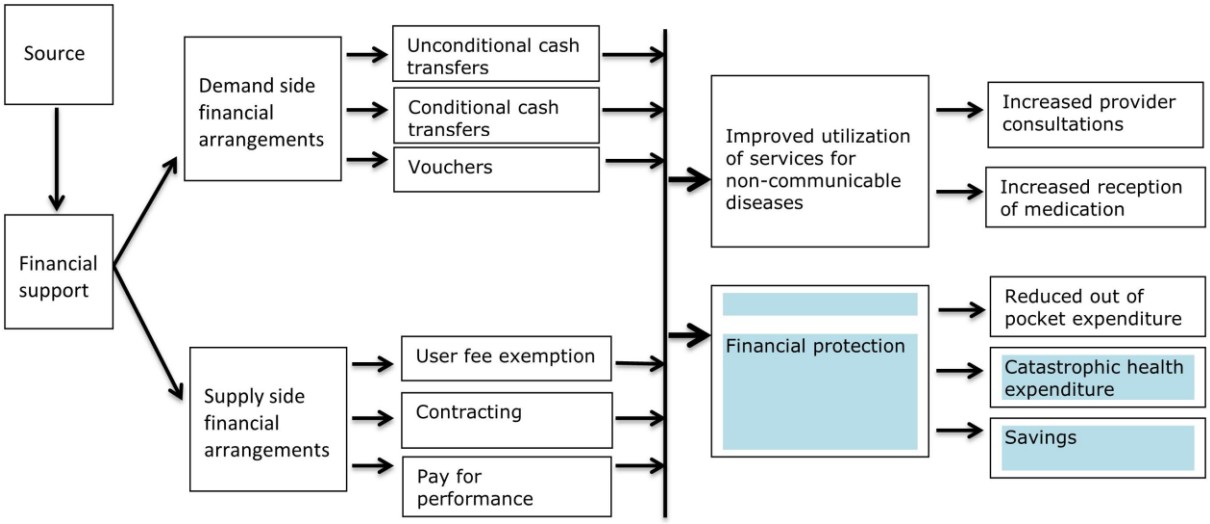

Figure 17 Suggestions for adaptations of conceptual framework for analysing financial protection arrangements. Adapted from Jacobs et al 2012 (46)

The largest group of Syrian refugees, the non-registered refugees, an estimated 0,6 million remains without support from UNHCR in Jordan. This population might be an even more vulnerable population then the registered non-camp Syrian refugees who were included in this study.
Unfortunately, no documentation could be found on this large number of Syrian refugees with regards to prevalence of NCDs, financial situation, their health seeking behaviour, use of health services and exact reasons for lacking registration. These refugees might be even more vulnerable since they don't receive financial support from UNHCR and have to pay the higher fees for health services (20).
It is recommendable to explore the financial vulnerability of non-registered Syrian refugees with regard to their need for NCD care
Syrian refugees who remain in camps are in general a younger population and receive support from UNHCR. Therefore the need for NCD care are expected to be much lower (20).

Chapter 5 Conclusion and recommendations

This chapter gives a conclusion of this study and contains a number of suggestions for practice and policy implications based on this review.

5.1 Conclusion

Jordan is a LMIC with a well-developed health care system and has introduced strategies to tackle the high burden of NCDs as well as the enormous influx of 1,3 million Syrian refugees since almost 7 years. Syrian refugees have a high prevalence of NCDs and face financial constraints in the utilization of NCD services in Jordan. These challenges have increased after the free policy for health services was withdrawn as a result of tensions experienced by the Jordanian host community when the Jordanian health system got overcrowded. There is a need for financial protection arrangements for vulnerable Syrian refugees to increase the utilization of NCD services.

Tis study revealed that there is not much written about financial protection arrangements for NCD health service utilization in humanitarian settings, besides that cash transfers and vouchers have been used to provide support to the most vulnerable. Experience on financial protection arrangements in LMIC show that DSF has the potential to increase health service utilization for preventive health services when conditionality is used.

Vulnerable Syrian refugees have been provided with cash assistance and vouchers in Jordan. These arrangements have supported the household income for the provision of their basic needs, but has not shown to increase the utilization of health services for adults or for NCDs.

Additional financial arrangements are necessary to offer financial protection to the most vulnerable. Based on limited research findings DSF might be supportive in providing financial protection to increase health service utilization but further research is necessary to get evidence on the use of DSF for vulnerable Syrian refugees with regard to the use of health services for NCDs.

It is important to reflect on what proportion of the living costs is required to guarantee sufficient household income for vulnerable Syrian refugees to sustain in their basic needs before additional arrangements targeted at the utilization of NCD services can be successful.

The demand for health services might increase when additional DSF for vulnerable Syrian refugees are implemented. It is crucial to prepare the health system in advance to avoid overcrowding of health facilities and constraints in access of health services for the Jordanian population and to achieve a sustainable and equitable solution.

There is need for further research to find evidence on financial protection arrangements for the use of health services and in particular NCD services among vulnerable populations to inform humanitarian organizations and MOH on policies.

5.2 Recommendations

The following recommendations are for MOH and UNHCR. Due to limited data, the analysis and findings are targeted to the registered non-camp Syrian refugees in Jordan.

MOH - Implications for policy
Strengthen current policy measures for preparation of the health system in:
- Further investment in health care sector
- Improve cooperation and alignment between public and private sector
- Encourage efficient use of health workers, medicine and resource
- increase health promotion strategies for NCDs
- Encourage the use of cheaper generic medicine

UNHCR
Supplement current cash programmes with following suggestions:
- Determine and provide the minimum cash income to cover for the basic needs for vulnerable non-camp Syrian refugees
- Health promotion for NCDs
- Pilot for CCT (cash card) or vouchers specified for free regular preventive NCD consultations or NCD medication, conditionality could be active involvement in health promotion (use of innovations like mobile for cash card questionnaires, which can be used for further research)
- Find out which groups are the most vulnerable

Monitoring and evaluation
- Monitor use of implemented DSF arrangements for NCD health services.
- Monitor the effect of DSF on the increase of demand on health services.
- Monitor the effect of the use of NCD services with specific measurable indicators like blood pressure, weight and blood glucose levels.

Implications for Research
- Research to determine the financial vulnerability of unregistered Syrian refugees, their prevalence of NCDs, and their health seeking behaviour for NCD services
- Further research is needed concerning the effectiveness of financial protection arrangements for the utilization of NCD services. Pilot studies could be useful to test the alternatives of DSF, like exploring the usefulness and effectiveness of CCT or vouchers specifically for NCD consultations or standard generic NCD medication.
- Further research on the effectiveness of UCTs on the utilization of NCD services.

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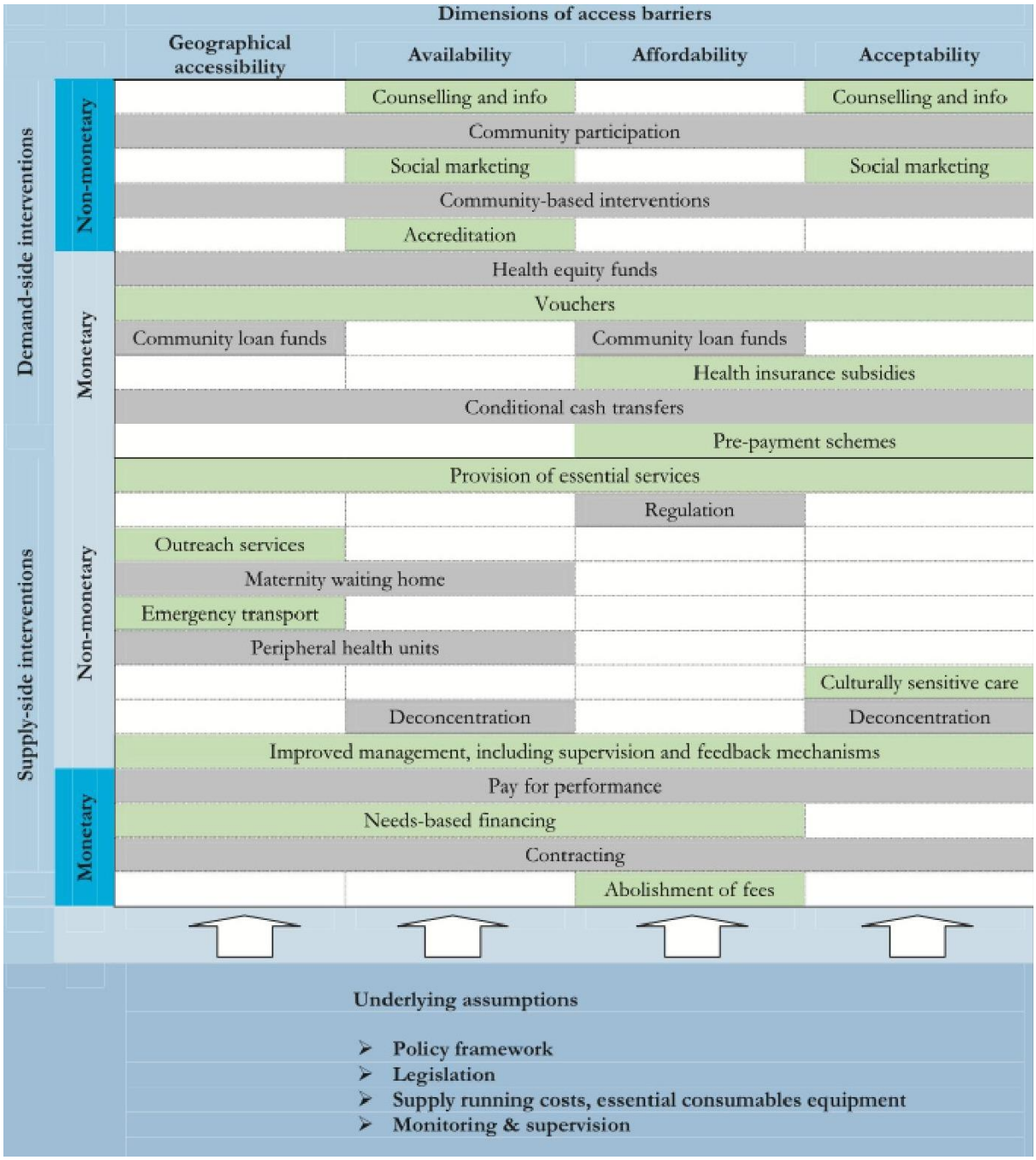
Annex A: Analytical framework of Jacobs et al



Source: Jacobs et al (2012)