CAN INTEGRATED MICROFINANCE AND HEALTH PROGRAMS REDUCE POVERTY-DRIVEN HEALTHCARE COSTS: A CASE OF THE PHILIPPINES

A Thesis submitted by

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ABSTRACT

Microfinance primarily provides financial services to its members. Globally, it has had a significant role in alleviating poverty and improving health among the poor. Microfinance has also been found to be instrumental in facilitating access to health-related services. Hence the healthcare agenda is supported by combining microfinance and health activities.

This thesis has two main parts. The first is a systematic review of relevant articles published since 1990, in the English language with no specific-country limit, exploring the contributions of microfinance and health initiatives in reducing healthcare costs. The second part explores evidence of the integration of microfinance and health programs in the Philippines, using a model cooperative. Secondary data was used to explore the design of health programs and how health initiatives could contribute to achieving *Healthy Philippines 2022*.

The first study revealed that microfinance could contribute to reducing healthcare costs through collaboration and by using different schemes of microfinance-health models. The second study also indicated that the integrated microfinance and health program of the model microfinance institution (MFI) is anchored by collaborative and partnership efforts. The health program was designed to operate in three main structures – subsidised or outreach, microinsurance and health loans, and patronage funds, which potentially could reduce the costs for healthcare service utilisation. These studies showed that integrated microfinance and health programs facilitated the use of healthcare and health-related services among its members; however, improved data collection mechanisms are needed for outcome evaluation.

This thesis supports the practice of an integrated microfinance and health program in the Philippines, which could potentially contribute to achieving the objectives of *Healthy Philippines 2022*, particularly in reducing healthcare costs. This thesis encountered limitations, so more studies to evaluate the integrated MFI health initiatives are recommended to further identify gaps, outcomes or impacts of the program.

Keywords: Microfinance Health program Poverty-driven healthcare costs

CERTIFICATION OF THESIS

This Thesis is entirely the work of Lolita S. Liboon-Aranas except where otherwise acknowledged. The work is original and has not previously been submitted for any other award, except where acknowledged.

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STATEMENT OF CONTRIBUTION

The following detail is the agreed share of contribution for candidate and co-authors in this thesis:

Article 1

Lolita Aranas, Rasheda Khanam, Mafiz Rahman, & Son Nghiem. (2020). *The role of microfinance in reducing poverty-driven healthcare costs: A systematic review.* (Under review)

Overall, Lolita Liboon-Aranas contributed to 65% to the conception of the paper, method design, screening of articles, descriptive analysis of included articles, drafted and edited the manuscript. Rasheda Khanam contributed 15%, assisted in the screening and review of articles; Mafiz Rahman contributed 10%, reviewed and verified the articles, Son Nghiem contributed 10%, oversaw the data analysis, reviewed and edited the manuscript. All authors contributed to the search of articles, interpretation of results, critical review and revision of the manuscript.

Article 2

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Overall, Lolita Liboon-Aranas contributed 70% to the concept, study design, review of literature, data collection and analysis, drafts, revisions and preparation of the final draft. Rasheda Khanam contributed 10% to the design of the study, supervision of data analysis and review of the manuscript. Mafiz Rahman contributed 10% to the data analysis and revisions of the manuscript. Son Nghiem contributed 10% to the research design and review of the article.

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ABBREVIATIONS

1CoopHealth	One Cooperative Health
ADB	Asian Development Bank
ADRC	Asian Disaster Reduction Center
APER	Asia Pacific Education Research
BMPC	Barbaza Multipurpose Cooperative
CARD	Centre for Agrarian and Rural Development
CASA	Community-based accompaniment with supervised antiretrovirals
CASP	Critical Appraisals Skills Programme
CDA	Cooperative Development Authority
CHI	Community health insurance
CHMF	Cooperative Health Maintenance Federation Cooperatives
DBM	Department of Budget and Management
DOH	Department of Health
EBSCO	(information service and data base)
HIV/AIDS	Human Immunodeficiency Virus/Autoimmune Deficiency Syndrome
HMI	Health microinsurance
HMO	Health Maintenance Organization
MC No. 2018-01	Memorandum Circular Number 2018-01
MHI	Microhealth insurance
MFI	Microfinance institution
OOP	Out-of-pocket
PhilHealth	Philippine Health Insurance
PhP	Philippine Peso
PNRC	Philippine National Red Cross
PRISMA	(information flow diagram)
PSA	Philippine Statistics Authority
PubMed	(data base of biomedical literature)
PWD	Person with disability
RePEc	Research Papers in Economics
SDEWES	Sustainable Development of Energy, Water and Environmental Systems
SSS	Social security system
UHC	Universal healthcare
WB	World Bank
WHO	World Health Organization

CHAPTER 1: INTRODUCTION

1.1. Background to the study

This study is guided by the idea that within the context of microcredit, financial services are not only confined within the premises of business investment but also investments in health (Littlefield and Hashemi, 2003). The vast number of microfinance institutions, particularly in developing countries, can be instrumental in supporting a healthcare agenda (Leatherman & Dunford, 2010) – one of which is to reduce poverty-driven healthcare costs (DOH Philippines, 2016). The thesis comprises two studies – one study reviewed the role of microfinance in reducing healthcare costs using literature published in different countries, while the second study explored an integrated microfinance and health program and its contributions to healthcare in the Philippines.

The Philippines is an archipelagic country situated in the Southeast Asian region, with an estimated population of 109 million in 2019 (PSA, 2020). Geographically, the country is divided into three main groups of islands – Luzon, Visayas and Mindanao. Politically, it is divided into 17 administrative regions composed of provinces and cities located in different island groups. Due to its geographical characteristics, the country is one of the most disaster-vulnerable countries in the world. The country is visited by an average of 20 typhoons each year and is vulnerable to frequent earthquakes and volcanic eruptions (ADRC, 2020). Its geographical location and physical environment also contribute to the high susceptibility of flooding, landslides and drought.

The Philippines is currently one of Asia's fastest-growing economies (World Bank, 2019b). Its transition from an agriculture-based economy to a service and manufacturing economy categorised the Philippines as a newly industrialised country with a positive economic outlook from 2016 to 2019. Despite an optimistic financial picture, poverty continues to pose as one of the significant challenges that the government and its citizens are facing. The country's census showed that an estimated one-fifth of its population is living below the national poverty line (PSA, 2019), which translates to about 18 million Filipinos unable to afford basic food and non-food necessities. It also showed that approximately 800,000 families remain "food poor" – they don't have enough food for their daily consumption. In its fight

to curb poverty, the government has vigorously pushed reform efforts and advocacies through sectoral collaboration and partnerships.

The burden of illness and its consequences continues to challenge its healthcare system. Financial health protection for vulnerable and marginalised groups remains limited and where medical care is inevitable; many are forced into using out-of-pocket (OOP) expenditure, forgoing or not adhering to medications.

In an effort to improve financial health protection, the country's national health insurance intensified its coverage by introducing the case payment and no-balance billing policy. This means that "no other fees or expenses will be charged or be paid for by the indigent patients above and beyond the packaged rate during their confinement period" (PhilHealth, 2019). Additionally, the government increased its health budget allocation from Philippine Pesos (PhP) 141.1B in 2015 to PhP 168.5B in 2019 (DBM, 2019). This increased budget allocation was intended to also include increased safety nets for health, especially for the poor. It would also serve to help achieve the goals of *Healthy Philippines 2022,* which aims to provide protection for Filipinos against the high cost of healthcare and to attain the best possible health outcomes. However, despite these reform efforts, OOP spending continues to be the dominant source of healthcare spending (Obermann, Jowett, & Kwon, 2018). Approximately 1.5 million Filipinos are pushed into poverty each year due to healthcare expenditure (DOH Philippines, 2016). Accordingly, many are forced to forgo or delay health and medical care due to prohibitive and unpredicted user fees or co-payments for health services; and healthcare expenses of about US$70 are catastrophic for single-income families. The 2019 Wellness Index revealed that about 40% of Filipinos express uncertainty about paying their medical bills (Chonco, 2019).

In the quest to achieve its health agenda, the Philippine Healthcare System calls for consolidated efforts from all sectors – both government and private. It needs to maximise community partnerships to attain the objectives of universal healthcare as a means to improve the health of Filipino families (World Bank, 2013).

Leatherman and Dunford (2010) reported that one of the potential community linkages to health is microfinance, commonly known as *"Kooperatiba"* among Filipinos, which is one of the country's poverty reduction and development initiatives for marginalised populations. With its membership-owned financial

services, it helps “uplift the livelihood, economic and social welfare of the less privileged people” (CDA, 2020). In 2018, about 10.7 million Filipinos registered for membership with 18,065 cooperatives nationwide. With this expansive membership, health advocates can take advantage of the roles of cooperatives in reducing poverty by integrating health into the microcredit system (Leatherman & Dunford, 2010). Likewise, the Community Development Authority (CDA) of the Philippines, as the government’s regulating arm of cooperatives, issued policy guidelines to foster health and wellness among cooperative members. Likewise, the policy guidelines served to answer the call of the healthcare system for community partnerships.

Globally, the contributions of microfinance in reducing poverty and the burden of ill health have been recognised. Successful experiences of combining health into microfinance has modelled the practice of integrated microfinance-health initiatives in the Philippines. *“Kooperatibas”* have diverged from conventional credit paradigms and provide an innovative microfinance-health model. Most have employed health education and scheduled exercise, while some have utilised financial and linkage capabilities like medical loans and micro-health insurance. The *“Parangal Award”*, an annual award that acknowledges exceptional achievements among *“Kooperatibas”*, recognised some specific microfinance-health initiatives of selected microfinance institutions (MFIs) from different levels – micro, small, medium and large-scale. Commonly seen are periodic medical and dental missions, feeding programs and health campaigns. Pharmacy, microinsurance and medical loans were made available in large-scale MFIs. These health initiatives may have benefited their stakeholders; however, there is a need to examine their implementation, contributions and impact.

This study explores the integrated microfinance-health program of the Barbaza Multipurpose Cooperative (BMPC). The BMPC provides microfinance with health and developmental services for urban and rural communities in the Western Visayas region, covering the six provinces of Aklan, Antique, Capiz, Guimaras, Iloilo, and Negros Occidental. The region is geographically located in the country’s typhoon belt, where typhoons and other natural hazards such as flooding and earthquakes can damage crops, livestock and other agricultural infrastructure. In terms of demographics, in 2019 the region had a population of approximately 7.8 million, with a poverty incidence of 16.4% or an estimate of 1.23

million individuals, and 4.2% of the population was considered extremely poor (PSA, 2019).

The BMPC health program integrates social responsibility and business ventures. Some health services are free while others require payment. The health program caters to nine branches across the region with memberships coming from various sectors such as agriculture and fishery, manufacturing, industry, services and homemakers. In 2017, these sectors were among those identified to have the highest incidence of poverty (PSA, 2019), thus there was an increased risk of illness. With poverty, these sectors are most likely to forgo or not adhere to medical care due to healthcare costs.

1.2. Research objectives

The main objective of this study is to examine the role of integrated microfinance and health programs, and their influence on alleviating poverty-driven healthcare costs among its members.

Specifically, it aims:

a. to conduct a systematic review of the literature that will explore the MFI's interventions to help reduce the cost of healthcare, and

b. to examine the practice of an integrated microfinance-health program in the Philippines using an MFI as a model in the study.

1.3. Statement of the problem

OOP spending is the primary source of health spending among Filipinos. As emphasised by the Philippine Healthcare System, healthcare spending is catastrophic and has pushed many households into a poverty trap. Despite efforts to improve financial health protection, the burden of illness increases as many forgo or fail to adhere to medical advice and treatment due to prohibitive and unpredictable user fees or co-payments. The healthcare system seeks to elicit sectoral cooperation (DOH Philippines, 2016). It appeals for initiatives from both government and non-government sectors to help reduce healthcare costs and increase health service utilisation.

In response to a call from the Philippine Healthcare System, both the CDA and the "*Kooperatibas*" were lauded for their efforts to promote healthcare among

their members. The CDA, through its social development program, highlighted the health service audits of "*Kooperatibas*" at all levels. It provided additional policy guidelines to feature the implementation of health services as a further microfinance activity. In 2018, it issued the "Revised Guidelines on Social Audits of Cooperatives" which recommended the inclusion of a detailed microfinance-health program in the "*Kooperatibas*" annual report. However, investing in and expanding health services is challenging (Silva, Sena, Belga, Silva, & Rodrigues, 2014). *"Kooperatibas"* are mandated to adhere to the CDA policy guidelines and respond to *Healthy Philippines 2022* by integrating various health initiatives into their plans and activities. The CDA annual reports revealed only a few MFI health program stories. Still, studies to help understand the challenges and gaps in the implementation of the combined microfinance-health program have not been undertaken. It would be helpful if MFIs are able to gain insights regarding the practice of integrated microfinance-health initiatives of other MFIs There are studies from other countries showing the utilisation of a microfinance platform in accessing healthcare; however, there is a need to understand both its implementation and any gaps and assess some desirable outcomes, particularly at the grassroots level (Lorenzetti, Leatherman, & Flax, 2017). In the Philippines, a study reported that a health maintenance cooperative could be an alternate health model to deliver accessible healthcare among Filipinos (Literatus, 2019). However, research on actual practices has yet to be carried out. With no relevant research that explores and understands the practices of microfinance-health initiatives, insights regarding best practice and confronting issues to inform the current implementation of the integrated microfinance and health programs are non-existent. Therefore, this study explores the role of MFIs in reducing poverty-driven healthcare costs and examines the practice of integrated microfinance and health programs in the Philippines using a case study model of the *"Kooperatiba"*.

1.4. Scope of the study

This thesis focuses on the influences of integrated microfinance and health programs in reducing healthcare costs. This thesis conducted a systematic review of the literature (study 1) and a review of the design and implementation of the health initiatives of the integrated microfinance and health programs in the Philippines (study 2). Both studies primarily employed historical data to explore and describe the contributions of microfinance to healthcare.

1.5. Microfinance and health services consumption: An overview

The link between poverty and health is inseparable. Poverty increases the risk of poor health, while poor health leads households into the poverty trap. The endemicity of this vicious cycle is a global concern and there is a massive need for collaborative efforts to curb this international issue.

Microfinance, as a strategy against poverty, has applied itself to healthcare with the aim of improving the health of society's vulnerable and impoverished members. The integration of health activities with microfinance has been instrumental in improving healthcare access and utilisation. This section summarises the influences of microfinance in alleviating poverty through its contributions to the healthcare sector.

Globally, approximately 1.2 billion people live in extreme poverty (WHO, 2020a). To help break this link, health risk protection and access to healthcare services are key factors that need significant consideration (World Bank, 2019a). Likewise, these factors are essential in achieving the global health priority – Universal Health Care (UHC) which is *"a system where everyone in communities can access the health services they need without suffering financial hardships"* (WHO, 2020b). However, healthcare costs continue to rise. Accordingly, about 100 million people around the world are pushed into poverty due to healthcare utilisation costs, and over 930 million people spend at least 10% of their household budgets on health care. In meeting this global health challenge, a move to intersectoral actions by multiple stakeholders is needed (United Nations, 2018). Leatherman and Dunford (2011) stated that one action that holds promise and which can underpin UHC is linking microfinance with appropriate health-related services.

Microfinance is considered to be a weapon against poverty and hunger (Njiraini, 2015). It can enable the poor to smooth out their consumption, help develop their microenterprises and gradually build their assets (ADB, 2000). Likewise, several studies have evidenced its contribution to health. MFIs in Bangladesh successfully modelled the utilisation of microfinance as a viable tool to alleviate poverty and improve healthcare use. Since then, the microfinance movement has been considered vital to the development agenda (World Bank, 2013).

The link between poverty and microfinance created the MFI health model for auxiliary services needed by the poor (Ofori-Adjei, 2007). Moreover, with its ability to reach the poor, microfinance is considered to be a potential tool to improve the delivery of healthcare to a vulnerable and marginalised population (Geissler, Leatherman, Gray, & Gash, 2013).

MFIs play significant roles in strengthening the healthcare system. Their contributions on health range from national initiatives to targeted local projects. A growing amount of evidence has shown that MFIs are capable of contributing to improvements in health by increasing health education and sanitation, improving healthcare utilisation behaviour and facilitating access to health services. A study in Latin America (Geissler & Leatherman, 2015) showed that providing primary health services and universal screening programs in conjunction with microfinance made substantial improvements in healthcare utilisation. Other studies demonstrated the contributions of microfinance to health which include reducing the incidence of childhood diseases, sexually transmitted infections and gender-based violence (Leatherman, Christensen, & Holtz, 2012; Pronyk et al., 2008). A study conducted in the Dominican Republic (Dohn, Chávez, Dohn, Saturria, & Pimentel, 2004) revealed that integrating health promotion programs and microcredit reduced the incidence of childhood diarrhoea and acute respiratory infections. Similar studies showed that health interventions through women's groups reduced neonatal mortality, encouraged breastfeeding and improved care-seeking behaviour among mothers (Bhuiya, Khanam, Rahman, & Nghiem, 2018; Prost et al., 2013).

Microfinance has also been considered as a strategy for HIV/AIDS prevention. Combining HIV/AIDS education and microfinance indicated an increased adherence to treatment for individuals living with HIV (Arrivillaga et al., 2012; Muñoz et al., 2011; Spielberg et al., 2013). It has also been linked to a

reduction in HIV risk behaviour among young women (Pronyk et al., 2008), intimate partner violence (Kim et al., 2007) and improved HIV prevention practice (Barnes, Mukherji, Mullen, & Sood, 2017; Odek et al., 2009).

MFI's have also made significant contributions to the community and national malarial initiatives. In Ghana, De Cruz et al. (2009) emphasised the positive impact of malarial education on prevention, early detection and treatment-seeking behaviour among microfinance clients. Other studies revealed improvements in usage of insecticide-treated bed nets (Tarozzi et al., 2011).

MFIs, through a health microinsurance (HMI) scheme, also play significant roles in mitigating financial shocks due to illness and treatment costs (Russell, 2004). The review by Habib et al. (2016) found that HMI's can contribute to providing financial protection against the cost of healthcare services, particularly to low-income households in developing countries. The increase in financial health protection is seen to encourage positive changes in healthcare seeking-behaviour and healthcare utilisation (Kimball, Phily, Folsom, Lagomarsino, & Holtz, 2013). Additionally, the health financial schemes of MFIs allow its members to save and borrow specifically for health spending which eliminates some health-seeking barriers (Leatherman, Metcalfe, Geissler, & Dunford, 2012).

Overall, microfinance uses various health components to enhance utilisation of healthcare. Leatherman et. al (2012) reported that health components such as health education and promotion, health financing, linkages to health providers, access to health products and other multiple components are fundamental mechanisms utilised by microfinance to help address the burden of ill health and increase healthcare use among its members. A similar study by Lorenzetti et al. (2017) re-enforced the findings, however, it also recommended further evaluation to understand the effects of the microfinance and health interventions. Hence, there is a need to further understand the outcome or impact of utilising a microfinance platform in improving and sustaining health, particularly at grassroots levels.

1.6. Cooperative health initiatives in the Philippines

The Philippines government strongly advocates cooperative movements. It fosters cooperatives as "practical vehicles for promoting self-reliance and harnessing people power towards the attainment of economic development on social justice" (Republic of the Philippines Cooperative Development Authority, 2008). The Cooperative Code of the Philippines (CDA) defines *cooperative* as a "duly registered association of persons, with a common bond of interest, who have voluntarily joined together to achieve a lawful common social or economic end, making equitable contributions to the capital required and accepting a fair share of the risks and benefits of the undertaking in accordance with universally accepted cooperative principles".

One of the significant objectives of cooperatives is to empower people, especially the poor. In 2018, the Philippines' CDA registered 18,065 cooperatives with an estimated 11 million active members who are farmers, fisherfolk, women, workers, small vendors, drivers, the vulnerable sector and persons with disabilities. Cooperatives are categorised according to the size of their membership. They are also classified according to their sector of economic activity such as credit, consumer, producers, marketing, or multipurpose.

Cooperatives are community-led microcredit, and can easily be organised. In most cases, mothers or a household member keep the membership in this microcredit system. It is, thus, easy to integrate health and welfare concerns like practical health courses, nutrition, and sanitation into its program. Some cooperatives in the country employ microinsurance operations at the local level as alternative health insurance schemes. In 2002, a survey conducted in five regions of the country concluded that micro-health insurance in the Philippines improved income-related equality of access to hospitalisation and medical care consultation in cases of illness (Dror et al., 2006). Other cooperatives engaged with community health workers in the delivery of health services such as health information dissemination, health monitoring and social support for marginalised households in the communities. The study by Hoffman (2019) in 70 communities in Metro Manila showed that microfinance played an important role in the success of health interventions.

The Centre for Agrarian and Rural Development (CARD) offered health loans to pay the premium for PhilHealth, the country's national health insurance program. It also created linkages with healthcare providers to increase affordable access to primary care and essential drugs in rural and semi-rural areas. Additionally, it offered "health education for financial planning for better health, rational use of available health services, and on preventing and treating dengue fever" (CARD, 2019).

Cooperatives continued innovating to provide quality and affordable healthcare service to their members. In 2014, cooperatives organised the Cooperative Health Maintenance Federation Cooperatives (CHMF). The federation aimed to "leverage community, institutional know-how, technical expertise, good governance, data & networks and technology into building a private healthcare platform that is progressive, responsive and inclusive". CHMF, also called 1CoopHealth, is the first and only cooperative HMO that focuses on low income and informal sectors overseen by the Philippines' regulatory agencies such as the Insurance Commission, Department of Health, and the CDA.

1.7. Theoretical background

The idea behind this study began with an affirmation by the WHO (2019) that the burden of disease is one of the major causes of poverty. Social experts asserted that the economic impact of ill health can be substantial, particularly to low-income households; thus, can create a vicious cycle which pushes the poor further into poverty and increases the burden of diseases and illness. Hence, this study, alongside that of Leatherman et al. (2010), asserts that since MFIs offer a unique opportunity that can facilitate access to healthcare and in the delivery of health-related services, attainable program design must be in place.

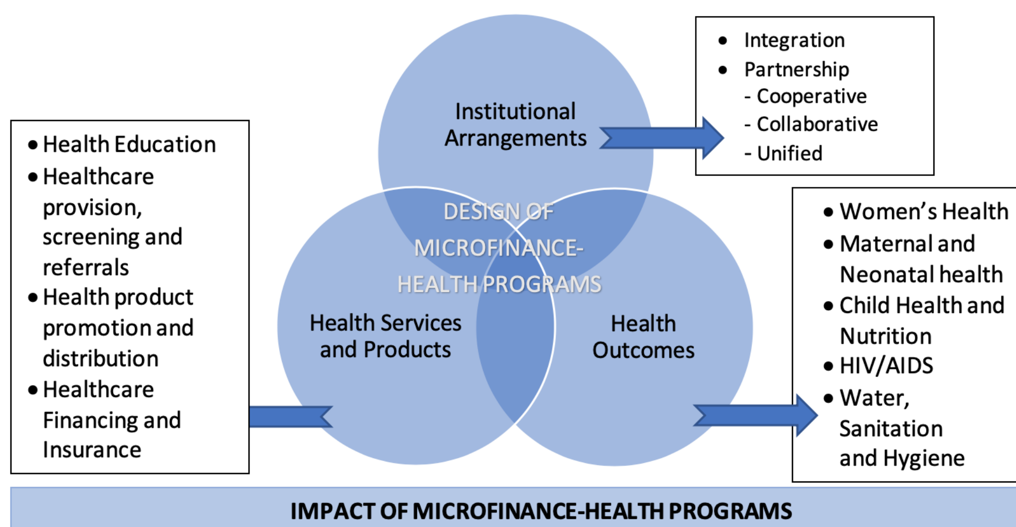
In understanding the health program design under investigation, this study utilised two complementary models – one which identifies the realm that microfinance needs to address in facilitating healthcare, and the other which illustrates the structural and functional design of an MFI health program (Ruducha & Jadhav, 2018). Leatherman and Dunford (2011) concluded that inadequate health information, insufficient accessible, affordable and effective healthcare services, and inadequate financing for health are priority issues for health program pathways.

Healthy People 2022 identified these issues as barriers for access to healthcare services, which are defined as "*the timely use of personal health services to achieve the best health outcome*" (ODPHP, 2014).

Theoretically, a robust health program is one that is sustainable, equitable and efficient in providing long-term benefits or outcomes to impoverished beneficiaries. For MFIs, the feasibility of impacting health program outcomes can be dependent on the structural and functional attributes of its health program design (Ruducha & Jadhav, 2018). Figure 1.1 illustrates the conceptual framework indicating the interplay of the key elements in the design of MFI health programs.

Figure 1.1:

Structural and functional aspects of designing MFI health combined programs by Ruducha and Jadhav (2018)[1]



The design maps the relationship between institutional arrangements, health services, products and outcomes which could improve the health of microfinance members. Health improvements could be in terms of knowledge and behaviour on health, in-service utilisation, coverage and quality of health services, financial protection and health status. The World Bank (2015) defined institutional arrangements such as policies, systems, and processes used by organisations to plan and manage their activities efficiently and effectively. Ruducha (2018) also emphasised that the health program expansion of MFIs is dependent on factors such as a client's health needs and their operational and financial capability to sustain the program.

With limited available resources and rising healthcare costs, it is significant for health programs to set priorities such as the health needs of those people who need them most (Wright, Williams, & Wilkinson, 1998). Client healthcare needs, such as health education and disease prevention, diagnosis, treatment, rehabilitation

[1] Note: Permission to use figure was granted by the author

and prioritisation will ensure that MFI health services efficiently use their resources to promote and support health among their members (Taylor & Marandi, 2008).

Another feature considered in the health program design is health products. In 2000, the Millennium Development Goals emphasised the significance of equitable access to and attainment of health products. Furthermore, the UHC (WHO, 2020b) stressed that assured quality health products need to be available, accessible, acceptable and affordable. The interplay of client healthcare needs and equitable access to healthcare products are major concerns which both the MFIs and its partners need to address.

The World Bank (2014) acknowledges the strength of cooperative partnerships in confronting challenges in health. Cooperative partnerships can achieve better health outcomes because there is a sharing of expertise, skills and resources (Nanthagopan, 2011). A recent review of the literature revealed that an MFI's core competencies in finance and healthcare linkages underscored in reducing medical and treatment costs (Aranas et al., 2020).

Using Ruducha and Jadhav's MFI combined health program design model (Figure 1.1) and the precepts of UHC and global health organisations, this study examined the health program design of a model MFI in the Philippines.

1.8. The gap in the literature

Previous studies investigating the utilisation of a microfinance platform in improving healthcare consumption laid the ground for crediting MFIs as significant partners to health. For example, several reviews evidenced the contributions of microfinance in improving health education and sanitation, healthcare utilisation behaviour, access to health services, women's empowerment, and mitigating catastrophic health expenditure. It has been claimed that an MFI's ability to reach the poor is a potential tool in improving the delivery of healthcare among marginalised groups. However, it is unclear whether microfinance can mitigate the cost of healthcare services, particularly in medical care and treatment.

Additionally, the demand to combine health into microfinance activities is increasing. In the Philippines, a policy which dictates the inclusion of health initiatives as part of a microfinance social development program is in place. Also, growing evidence in Latin America, Africa and Asia showed the involvement of

MFIs in national and local health projects such as HIV, malaria, maternal and childhood diseases, screening and other primary healthcare programs. However, no study has been seen that will help understand the gaps, challenges and issues surrounding the implementation of the program. Thus, this study will explore integrated microfinance and health programs and the implementation of a model MFI in the Philippines.

1.9. Outline of the thesis chapters

Chapter One presents an introduction to the study. It contains the background of the study, statement of the problem, research objectives and scope. It presents an overview of the contributions of microfinance to health, background information about MFIs in the Philippines, the theoretical background of the study, and the gap in the literature which this study addresses.

Chapter Two contains a research paper which is a systematic review of the literature. The article search was not country-specific and was for English language studies published between 1990 and the present. This study is entitled "The role of microfinance in reducing poverty-driven healthcare costs: A systematic review" and attains the first research objective of this thesis. This was presented in the Sustainable Development of Energy, Water and Environmental Systems (SDEWES) International Conference on 6th April 2020. The article is under review with SN Business and Economics (SNBE).

Chapter Three addresses the second objective of this thesis with a study entitled, *"Combining microfinance and health in reducing poverty-driven healthcare costs: Evidence from the Philippines*". This chapter reviews the design and implementation of an integrated microfinance and healthcare program in the Philippines using a model of microfinance. It explores the influences of the health program's initiatives in reducing healthcare costs. This paper has been published with *Frontiers in Public Health*, https://doi.org/10.3389/fpubh.2020.583455.

Chapter Four presents the summary and conclusions of this thesis.

CHAPTER 2: THE ROLE OF MICROFINANCE IN REDUCING POVERTY-DRIVEN HEALTHCARE COSTS: A SYSTEMATIC REVIEW

2.1. Abstract

The global health sector has identified poverty-driven healthcare costs that compel poor people to delay or forgo needed medical care. This can lead to disease progression or worse, death. The health sector alone cannot address such a challenge. This study focuses on the role of microfinance in promoting health among marginalised populations by reducing medical care and treatment costs. It aims to provide insights that will guide health promotion practices among MFIs and make a valuable contribution to the healthcare system.

The authors conducted a systematic review of the literature published between 1990 and the present from the databases of EBSCO, EconLit, RePEc, Web of Science, PubMed, Google Scholar, and webpages from the World Health Organization. Using the search terms: *microfinance* OR *microlending* OR *microcredit* OR *microfinance*, *medication costs* OR *cost of medical care* OR *cost of health care* OR *healthcare costs* OR *medical costs* OR *health care costs,* 817 articles were reviewed, 39 articles qualified for further reading after a title and abstract review. Only seven articles met the criteria and were analysed.

This review suggests that microfinance institutions' (MFIs') core competencies in finance and healthcare linkage capabilities can potentially reduce poverty-driven healthcare costs using different schemes of combined microfinance-healthcare models. Although promoting healthcare and sustaining healthcare cost-reduction interventions are challenging for many MFIs, it is imperative to sustain these interventions. More studies are needed to examine more MFIs' healthcare cost-reduction initiatives, their outcomes, and other sustainable actions towards promoting medical care and treatment adherence.

Keywords: microfinance, healthcare cost, medical care cost, poverty

2.2. Introduction

Globally, the issue of rising healthcare costs is a constant challenge to the healthcare system. For the poor, the costs of treatment and medical care services are a significant financial burden (World Bank, 2014). Healthcare costs, however, are not only confined to direct spending for medical procedures and medicines. Costs also include indirect outlays incurred by to-and-fro transport, accommodation, and other equipment used for health-related care. For people with low incomes, both direct and indirect healthcare spending can be catastrophic and deter adherence to medical care (Flores, Krishnakumar, O'Donnell, & van Doorslaer, 2008). Poor households cope by reducing food consumption, children's education (Alam & Mahal, 2014), or forgoing medical treatment (Russell, 2004). Others respond through borrowing, increasing their mortgage (Habib et al., 2016), or selling their limited assets (Islam, 2011) The burden of healthcare costs are not only impoverishing but also cyclical to poverty.

In parallel with initiatives to combat poverty and the burden of diseases; the healthcare sector has positioned itself to take the populace closer to achieving the goals of UHC. However, despite advances which improve healthcare, issues with overcoming the burden of acute and chronic diseases, poor health-seeking behaviour and the cost of medical treatment continue to confront healthcare systems. Russell (2004) argued that improving health services alone could not protect households from all illness costs. Essue et. al (2015) mentioned that an estimate of 150 million people around the world struggle to meet the costs of accessing and using health care. Many impoverished people delay treatments as long as possible and a collective response to illness is to "wait and see" (Chronic Poverty Research Centre, 2008-09). Unless an illness is perceived as severe, household members do not seek treatment (Jembere, 2018). The issue of healthcare costs is significant because a higher level of healthcare service (tertiary and secondary healthcare) mostly entails the higher cost of service utilisation (Ensor & Cooper, 2004). Access to all levels of healthcare services is vital because diseases are dealt with based on the stage of progression – from risk factors, signs, symptoms, sickness, rehabilitation, to death if left untreated.

Healthcare issues are mostly faced by people from developing countries where government and healthcare systems do not adequately provide financial

protection to their population against high-care costs. With limited or no financial health protection and where medical care is inevitable, people are forced into OOP expenditure. The World Health Organization (2010) defines OOP as direct payments made by individuals to healthcare providers at the time of service use. Accordingly, low to middle-income countries registered an average of 38.89% to 56.19% OOP expenditure in 2016, which equates to many people not having enough financial protection for health. In the quest to alleviate impoverishing healthcare costs, strategies directed towards social health risk protection are essential. The WHO noted that a lack of social health protection impedes health service access (2019). Likewise, Aregbeshola and Khan (2018) concluded that aside from an increase in public healthcare funding, there is an urgent need to provide social health protection plans against OOP health payments to afford financial risk protection.

One of the development initiatives which focuses on financial risk protection and poverty alleviation involves organising microfinance for the poor. Community-led microfinance adheres to the principle of cooperativism. In most cases, mothers take the membership into a microfinance system. It is, thus, easy to integrate health and welfare concerns such as practical health courses, nutrition, and sanitation into the system (Leatherman & Dunford, 2010). MFIs in Africa, Asia and Latin America successfully offered services beyond microcredit by employing interventions which provided financial and health risk protection among their members (Ruducha & Jadhav, 2018). Habib (2016) posited that MFIs contribute financial protection by reducing OOP health expenditure, total health expenditure and household borrowing. Particularly noted is evidence illustrating an increased number of health-related services that facilitate access to healthcare (Amin, St. Pierre, Ahmed, & Haq, 2001) and significant improvement in the use of medical care (Agha, Balal, & Ogojo-Okello, 2004). Other studies mentioned that microfinance membership promoted greater health awareness of health services (Hamid, Roberts, & Mosley, 2011a) and demonstrated positive effects on health knowledge and health-seeking behaviour among households (Bhuiya, Khanam, Rahman, & Nghiem, 2018). Gertler (2009) confirmed the ability of microfinance to mitigate the effects of health shocks such as hospitalisation, medical treatment or death due to ill health, and non-medical expenditures including food and transportation.

The effects of mitigating health cost shocks by using microfinance programs (Pham Tien Thanh, 2017), increases health awareness and health-seeking behaviour. These effects reduced the barriers to healthcare utilisation for primary and preventive care (Hamid et al., 2011a), but not necessarily medical care or treatment costs. Medical care affordability continues to be an issue. Impoverishing healthcare costs are considered to be one of the significant causes of poverty (World Health Organization, 2019), along with the burden of diseases (Taber, Leyva, & Persoskie, 2015) and poor healthcare utilisation (Jembere, 2018). Similarly, healthcare systems identified these issues as significantly contributing to why many people forgo or do not adhere to medical care.

On a positive note, as governments advocate microfinance, their healthcare systems can capitalise on the strength and promising role of MFI-healthcare partnerships. Molyneux (2007) argued for the importance of building on organisational networks that will assist households in meeting treatment and medical service costs. However, to our best knowledge, there is no systematic review that synthesised evidence of the extent to which microfinance affects healthcare costs. This review will explore the MFIs' interventions in addressing healthcare costs which compel poor people to forgo or not adhere to medical care or treatment. Exploring their potential will answer the call of UHC and add valuable information to the existing body of knowledge.

2.3. Method

Search strategy

The authors conducted a rigorous and systematic review of the literature published between 1990 and the present from the databases of EBSCO, EconLit, RePEc, Web of Science, PubMed, Google Scholar, and retrieved peer-reviewed articles and webpages from WHO. We used the search terms search terms: *microfinance* OR *microlending* OR *microcredit* OR *microfinance*, *medication costs* OR *cost of medical care* OR *cost of health care* OR *healthcare costs* OR *medical costs* OR *health care costs*. The selection criteria considered were: (1) Population: MFIs, (2) Intervention: Health strategies that aim to reduce medical care costs, treatment costs, (3) Outcome: Supports medical care service utilisation, treatment adherence and reduced medical care costs, particularly among the poor.

Study selection

PRISMA was used to manage the literature search and selection process (Appendix A). The preliminary search returned 817 papers from different databases. Following de-duplication, title and abstract searches on 778 articles were conducted. The first author independently assessed the title, abstracts and full paper of shortlisted articles. With considerations of the inclusion criteria, two reviewers voted on each article and conflicts were resolved through discussions and by a third reviewer. The identified articles for initial review were uploaded to two developed Excel data templates. One template was customised to screen and assess articles and resolve disagreements. Another was tailored to display the characteristics of the study such as author/s name, article type, publication year, country, objectives, study design and results/key finding concerning medical and treatment cost-reduction.

In the screening stage, 778 articles did not meet the inclusion criteria, thus were excluded; while 39 articles were shortlisted for eligibility. After a full paper review of all eligible articles, seven articles met all inclusion criteria and were critically examined. Since the methodologies and settings of the study/report were heterogeneous, we decided not to conduct a quantitative synthesis or meta-analysis. The included articles had differences in study designs, population covered, and the inability to directly examine MFI interventions on medical care or treatment costs. However, all seven articles found that MFIs' health-related activities had reduced healthcare or treatment costs. Appendices B and C show the Excel template populated with characteristics and quality (Critical Appraisals Skills Programme, 2019) of the articles which met the inclusion criteria.

While many studies were found to reduce poverty and improve health, none were found to specifically investigate medical care and treatment cost-reduction. The primary objective of this study is to present essential elements that will help understand and clarify what is known about the role of microfinance in reducing poverty-driven healthcare costs. Hence, only articles/reports that explicitly narrated the activities and results were included. Articles that did not stipulate cost-reduction measures by an MFI were excluded. Peer-reviewed reports from the WHO were considered to be included articles.

2.4. Results

From the list of 39 articles initially shortlisted after the title and abstract review, 32 were excluded either due to lack of evidence of medical care or treatment cost-reduction. Most of the excluded articles demonstrated protection from OOP expenditure caused by ill health but did not necessarily reduce the cost of medical care or treatment. Table 3.1 shows a summary of the characteristics of the seven articles that were finally included.

All seven articles/reports in this review showed evidence of potential microfinance medical care or treatment cost-reducing initiatives. Peer-reviewed studies came from Argentina, Bangladesh, Bolivia, Ethiopia, Guatemala, India, Mexico, Nicaragua and Peru. The analysis of the seven articles revealed that interventions employed by MFIs could potentially reduce medical and treatment costs, namely: (1) microfinance and community-based health insurance; (2) microfinance and micro-health insurance; (3) microfinance and micro-franchise; (4) microfinance with integrated services; (5) a microfinance and care model. Notably, all measures were geared towards an MFI network and collaborative effort. Table 3.1 shows the summary of findings of MFI interventions in reducing medical and treatment costs of the included articles.

Table 3.1:

Summary of findings of MFI interventions in reducing medical or treatment costs of the included articles

MFI interventions	Description	Number of studies and participants	Quality of evidence	Included article
Integrated health services	MFIs provide primary healthcare or combine health programs with microfinance activities With collaborative partnerships With health organisations	Three studies MFI with integrated health programs Health organisation linkage	High quality	Colom et al. (2018) Geissler and Leatherman (2015)
Model of care	Microfinance and health organisation provides social support to clients with specific health needs.	One studies MFI Groups with specific health	High quality	Muñoz et al. (2011) Saha et al. (2015)
Micro-franchise	Microfinance creating health franchises using groups of affiliated doctors or nurses within the community	One article MFI Affiliated doctors or nurses	Good	Lashley (2008)
Community-based health insurance	MFIs linkage with existing community-base health insurance	One study MFIs community-based health insurance partnering with non-government hospitals	High quality	Devadasan et al. (2007)
Micro-health insurance	MFI in collaboration with medical centres	One study	High quality	Hamid et al.(2011b)

This review identified five interventions employed by MFIs which potentially contribute to the reduction of medical care or treatment costs among their members.

1. *Microfinance and integrated health services.* The literature offers ample confirmation that MFIs' networks with organisations offering free or discounted health services and utilities had gained popularity. A case study conducted in Latin America regarding the provision of a universal screening program and primary care services in conjunction with microfinance loans showed evidence of the capability of MFIs to reduce healthcare costs and access-barriers to healthcare use (Geissler & Leatherman, 2015). As mentioned in the study, MFI clinics were co-located with loan services to directly provide preventive and primary care services to female adult clients and their children. Primary care services included annual health screenings, counselling, and delivery of modules on health education. Referral for secondary and tertiary care was covered, and

point of care was free. Other services, such as diagnostic tests and dental services, were fee-for-service at nominal or discounted rates. Notably, the MFIs' health program component addressed the affordability of health services and products. Services were reduced to an affordable price, thus improving treatment and medical service adherence among clients from Argentina, Bolivia, Mexico, Nicaragua, and Peru.

In a similar manner, an MFI Friendship Bridge alliance with Wuqu Kawoq, a primary healthcare system providing services in rural Guatemala, reduced the barrier to care by offering preventive services at no cost, a low treatment package for clients with confirmed diabetes and hypertension and assistance with follow-up care at no cost for positive cervical and breast cancer screening (Colom et al., 2018). Accordingly, the overall acceptance of the medical care services under the MFI Friendship Bridge program was high.

2. *Microfinance and model of care.* Muñoz et al. (2011) mentioned that through an MFI and the Peru National HIV Program partnership, patients starting antiretroviral therapy received Community-based Accompaniment with Supervised Antiretrovirals (CASA), psychosocial group support and microfinance assistance. Alongside business technical training, HIV patients were given financial aid for diagnostic tests and treatment, transportation and nutritional support. Unquestionably, CASA tailored a treatment adherence intervention which targeted the reduction of indirect healthcare costs for HIV clients. The study concluded that the MFI-CASA partnership increased the adherence to retroviral treatment among the vulnerable populations in Peru. Meanwhile, in India, Saha (2015) mentioned that the MFI Swayan Krishi Sangaw offers cashless maternity, hospitalisation and accident benefits to its members among network hospitals.

3. *Microfinance and micro-franchise*. In Kenya, HealthStore clinics used microfinance and a micro-franchise model (Lashley, 2008) to provide cheap and quality medicines (Berk & Adhvaryu, 2012). Some of the services offered by the HealthStore were diagnostic tests, medicines for common illnesses, and general health counselling. The HealthStore Clinic is an example of an emerging development strategy that builds on microfinance (Berk, 2011) and works with three classes of partners – the government, donors and suppliers (Fertig & Tzaras, 2005). In Argentina, MFI members access healthcare services such as

maternal and child care, and specialised and general medicine through a system of affiliated doctors and an MFI subsidy (Lashley, 2008). Accordingly, MFI members and their extended families only pay a third of the consultation cost per visit.

4. *Microfinance and community-based health insurance.* In India, access for the self-help group to microfinance which offered health products through Community Health Insurance (CHI), reported lower expenditure than the comparison group, for the treatment of health problems. Devadasan et al. (2007) mentioned that the CHI scheme reduced OOP expenditure among insured members as they were entitled to hospital care up to US$23, while non-insured members paid the whole of a hospital bill costing between US$15-20. The CHI was effective in halving the incidence of catastrophic health events among hospitalised patients (Somen Saha & Annear, 2015). It indicated that the CHI package for MFI members protected up to US$83 in medical expenses per year while paying only a US$3 annual contribution. Similarly, the community-based health insurance scheme introduced in Ethiopia improved the overall utilisation of health services. Jembere (2018) noted that the CHI scheme made healthcare services more affordable and equitable, thus, it increased the access and use of healthcare services.
5. *Microfinance and micro-health insurance (MHI).* In Bangladesh, the microinsurance for health targeted towards the poor and the ultra-poor, provided basic healthcare at an affordable rate (Werner, 2009). The micro-health insurance scheme of Grameen Bank offered primary healthcare directly from its health centres (Hamid et al., 2011b). Accordingly, its service package comprising mainly curative care, maternal and child healthcare, benefitted its members with reduced medical consultation fees, discounts on drugs and tests, hospitalisation benefits, free annual health check-ups and immunisations. Compared to non-cardholders, MHI cardholders benefitted from a 40 to 50% lower consultation fee, 25% lower pathological test fees, hospitalisation benefits of US$29, school health packages and cataract operations. Hamid concluded that MHI affordable offerings significantly improved the use of basic healthcare services among MFI members. In developing countries, MHI has been used as a means of risk pooling and reducing OOP health expenditure (Habib et al., 2016). Accordingly, it allowed the poor to smooth consumption, and avoid informal

loans and health shocks. MHI helped prevent households from potentially reducing food consumption, thereby protecting the health of vulnerable household members (Akotey & Adjasi, 2018). MHI is a microinsurance defined as "protection of low-income people against financial risk, in exchange of payment of premiums, according to the probability and cost of the risk" (Churchill, 2019).

2.5. Discussion

This systematic review primarily focused on the role of MFIs in reducing direct and indirect costs of health and medical care utilisation. Our analysis supports the findings of other studies which indicate that MFIs had made significant contributions in supporting health and protecting financial health risks and are considered to be emerging potential actors in reducing financial barriers to medical treatment (K. Geissler et al., 2013).

This review points out that many studies have been undertaken to evaluate the roles of MFIs in improving health and reducing access-barriers to healthcare services. However, none evaluated the medical care and treatment cost-reduction strategies of MFIs. This review examined the pieces of evidence that linked the role of MFIs in reducing medical care and treatment costs. Remarkably, the range of actions was geared towards an MFI and health organisation collaboration and linkages. Such partnerships, with each having a distinctive experience in microfinance or healthcare, made a successful MFI-healthcare alliance which facilitated the access to health service products and providers. This result is consistent with the findings of Ruducha (2018), which concluded that MFIs' current leading intervention to expand health and social services are through cooperative and collaborative partnerships. This finding is also in line with the WHO's advocacy to promote and support partnerships within the private sector for health development (Buse & Waxman, 2001).

Notably, we found that most studies were based on large-scale MFIs. This finding supported a prior study which posited that studies involving MFI integrated health services were linked to large and motivated organisations (2015). For example, Grameen Bank played a significant role in developing microcredit in Bangladesh (Hamid et al., 2011b). Pro-Mujer was one of the few long-term and

fully integrated MFIs operating in Latin America (Geissler & Leatherman, 2015). SHGs were extensively promoted in India through government and non-government organisations and have reached an estimate of 93 million members in 2012 (Saha et al., 2015). In Guatemala, Friendship Bridge provided microfinance services and education to more than 20,000 indigenous Mayan women (Colom et al., 2018). Banco Mundial de la Mujer provided microcredit to over 5000 accounts in 2008 in Argentina (Lashley, 2008). These large-scale MFIs' core competencies extended beyond financing, and their expertise and capacities in building up partnerships (Cull & Morduch, 2017) could be a tool in reducing poverty-driven healthcare costs.

Studies are few, although evidence from the Philippines and India were identified. The outcomes of these studies are not published in peer-reviewed journals, hence they are excluded from this review. In the Philippines, the CARD created linkages with healthcare providers to increase affordable access to primary care and essential drugs in rural and semi-rural areas. Meanwhile, other MFIs integrated various health initiatives into their programs, such as periodic medical and dental missions, medical assistance during emergencies, medical loans, and blood monitoring. Some large- to medium-scale MFIs provided feeding programs, free annual check-ups, vitamins, health and safety training, a refund for x-ray and urinalysis, and set-up of blood bank and pharmacies (CDA, 2019). Also, the emergence of a health maintenance cooperative provided a promise to deliver accessible and affordable healthcare among Filipinos (Literatus, 2019). The health cooperative package provided outpatient services, laboratory tests and preventive healthcare services at a reduced price of US$76.50. Corporate service providers offered a similar range of services at a much higher premium of US$224.00 to US$1,263.00 per year. Meanwhile, in India, an MFI Swayan Krishi Sangaw offered cashless maternity, hospitalisation and accident benefits among network hospitals to its members (Saha et al., 2015). It is vital to investigate and measure the impact of these ongoing initiatives on the incidence of foregone care and treatment adherence and its contribution to alleviating catastrophic healthcare costs.

There are limitations to this review. Reducing medical care or treatment care costs was not the primary outcome of all included studies. The medical care and treatment cost-reduction components were merely within the scope of the studies relating to integrated microfinance and health programs. There is a need to conduct

studies using more rigorous designs and indicators to unveil MFIs' contributions to treatment and medical care cost-reduction.

This systematic review emphasised the importance of medical care and treatment in promoting health and reducing the burden of disease. The need for affordable healthcare products is pronounced; thus, interventions beyond the health sector are necessary. Promoting healthcare and sustaining healthcare cost-reduction interventions are challenging for many MFIs; thus, it is imperative to support these interventions.

2.6. Conclusion

MFIs' collaborative and partnership efforts with healthcare potentially play a significant role in reducing the costs of medical care. Although limited, evidence shows that such a unique partnership potentially helps promote medical care or treatment adherence using different schemes of combined microfinance-healthcare models. These schemes can be replicated and customised accordingly by other MFIs. The challenge for more MFIs to advocate and sustain healthcare cost-reduction interventions is urgently encouraged. Notably, a knowledge gap exists due to the scarcity of literature. Not all the included articles solely and extensively focused on reducing medical care or treatment costs. In addition, the data was from large-scale MFIs. Some MFIs are seen to have medical care cost-reducing initiatives; however, there are no studies confirming this. Exploring their practice and output will help fill this gap in the literature. Additionally, the conduct of more studies will help ascertain the potential contribution of microfinance to reduce medical care and treatment costs.

CHAPTER 3: COMBINING MICROFINANCE AND HEALTH IN REDUCING POVERTY-DRIVEN HEALTHCARE COSTS: EVIDENCE FROM THE PHILIPPINES

3.1. Introduction

This chapter contains an exploration of the integrated microfinance and health programs of a model MFI. The objective is to determine the structure and function of the health initiatives within integrated microfinance and health programs and their influences in reducing healthcare costs. This chapter also aims to identify gaps and issues in the implementation of the health initiative and builds on the problems identified in objective b) as set out in section 1.3 above, and in the systematic review (in chapter 2), which identified the roles of microfinance in reducing poverty-driven healthcare costs. The review identified that the combination of microfinance and healthcare schemes could potentially reduce medical care and treatment costs; thus, these schemes helped to promote healthcare utilisation.

Previous studies regarding integrated microfinance and health programs focused on the contributions of MFIs in improving healthcare access and utilisation (Geissler & Leatherman, 2015); its ability to mitigate health shocks (Pronyk, Hargreaves, & Morduch, 2007); and the role it played in strengthening the healthcare system (De La Cruz et al., 2009). Others concluded that an MFI's ability to reach the poor is a viable tool in improving the delivery of healthcare services to marginalised populations (Geissler et al., 2013), and hold a promise that can underpin the UHC (Leatherman & Dunford, 2010). Little is known on how microfinance can reduce the cost of healthcare services and treatment. In addition, few studies have been seen that consider the practice of integrated microfinance and health programs in the Philippines.

Microfinance, commonly known as "*Kooperatiba*", is highly supported in the Philippines where it is one of the country's social development strategies against poverty. Vast numbers of "*Kooperatibas*" are spread across the country and serve an estimated 11 million Filipinos, mostly from the marginalised population.

Since poverty is linked to poor health, many "*Kooperatiba*" members are the most likely to experience catastrophic health spending. With limited financial health protection available, health spending among this population is dominantly OOP (Dayrit, Lagrada, Picazo, Pons, & Villaverde, 2018); and for some, forgoing medical care is the only option.

The widespread presence of "*Kooperatibas*" in the country is seen to be instrumental in promoting health among its members. The CDA, which is the government arm for "*Kooperatibas*", has pushed for creating integrated microfinance and health programs among MFIs. Records from CDA showed incidences of "*Kooperatibas*" microfinance-health activities. However, studies regarding its practice have not been found. This chapter evidences the practice of integrated microfinance and health programs in the Philippines. It reviews the design and implementation of health initiatives within the integrated microfinance and health programs of the model "*Kooperatiba*" in the Philippines.

3.2. Method

3.2.1. Data gathering

The collection of data has mainly depended on secondary data sources. Specifically, library and internet materials, records and documents shared by BMPC and the CDA have been reviewed.

The first phase in data gathering was scanning reports and documents from the CDA head office in Manila, Philippines. The researcher made a personal and written request of her intention to conduct research, to access relevant documents, and support to encourage MFIs to participate in the study. Appendix H is the letter from the Office of the Director, CDA, Philippines. Requests for support for the study were served to MFIs, however, there was minimal to no response from them. Only the BMPC actively responded in providing data and information.

The second phase was the review of reports, relevant documents and literature hand-picked from libraries, shared by the CDA and searched online.

The third phase in data gathering was the review of reports shared by the participating MFI. A review criterion was developed using the three key elements identified in the Ruducha and Jadhav (2018) framework – organisational

arrangement, health products and health outcomes. The review criteria expanded upon the following questions:

a. Organisational arrangement
    - What is the structure of the health initiative?
    - How does the health initiative function?
    - Is the health initiative in line with national/local needs and priorities?
    - What factors are seen to facilitate the sustainability of the program?

b. Health products
    - What health products are offered?
    - Does the health offering facilitate in reducing the cost of healthcare service?
    - What facilitates and constrains the use of health products?

c. Health outcome
    - Have short-term results been achieved or likely to be met?

The researcher made a series of interactions through email correspondence with key informants who have sufficient knowledge regarding both BMPC health programs and CDA policies. The key informants validated the documents and information used in the analysis. Appendix D lists the documents reviewed.

3.2.2. Data and findings

3.2.2.1. Data and findings from CDA reports

Annually, cooperatives submit to the CDA social audit report. The report details the MFI's social development services, which includes the health program. In 2018, the CDA released a revised policy on social audit reporting, called Memorandum Circular (MC) No 2018-01. The revised policy dictates the guidelines for a broader scope of reporting. It required cooperatives to report the details of their health programs, such as the specific name of health activities, number of activities, number of beneficiaries, and the amount and source of funding. As MC No 2018-01 is in its first phase of implementation, the policy still does not have provisions for impact assessments.

In adherence to CDA policy, most cooperatives incorporate various activities on health such as scheduled physical exercises, periodic medical and dental

missions, medical assistance during emergencies, medical loans, blood pressure and glucose monitoring. Some large- to medium-scale cooperatives were found to provide feeding programs, free annual check-ups, vitamins, health and safety training, a refund for x-ray and urinalysis, and set-up blood banks and pharmacies (CDA, 2019).

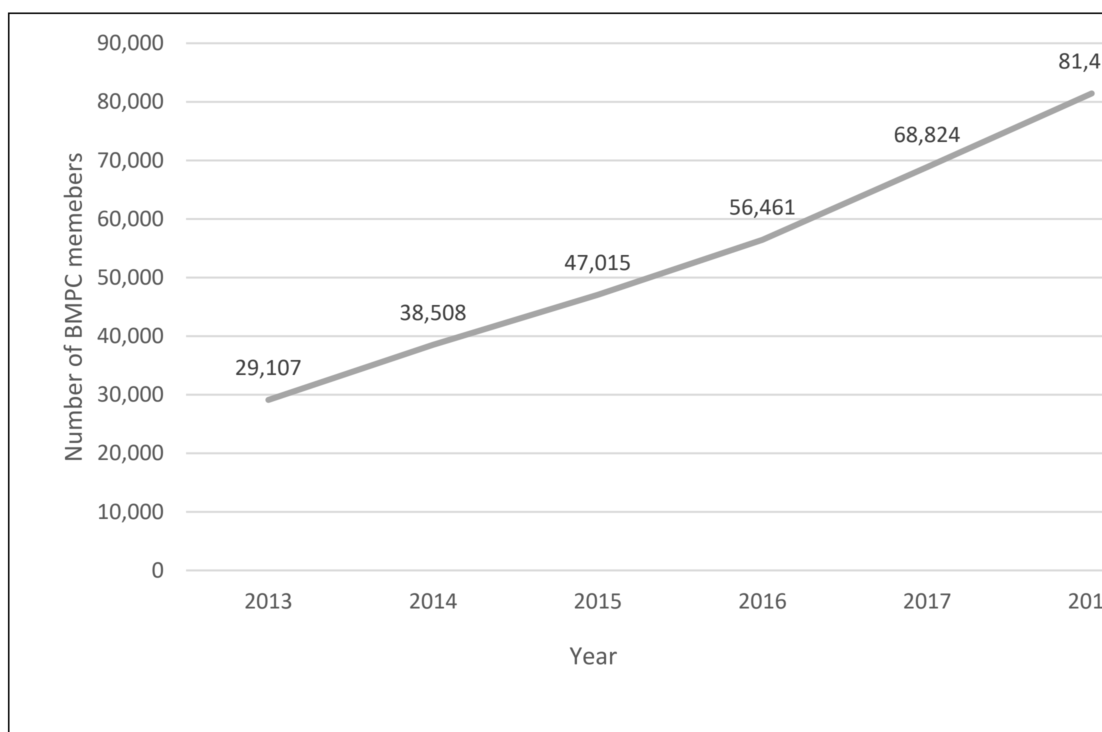
3.2.2.2. Data and findings from BMPC integrated health program

The BMPC characteristics and categorisation

The BMPC membership grew to more than double its number after 2013 (Figure 3.1). From 2017 to 2018, about 15.48% or 12,606 members registered on its roster. An estimated 75% of its members were women. Among its branches, the central office has the greatest number of members comprising about 25% of its total membership, and the rest of the 75% are scattered among the eight branches (Figure 3.2). Figure 3.3 shows the number and distribution of members in all of the nine branches.

Figure 3.1:

Total number of BMPC members from 2013 – 2018[2]



[2] Source of data: BMPC 2018 Annual Report

Figure 3.2:

BMPC percentage distribution of members by branch

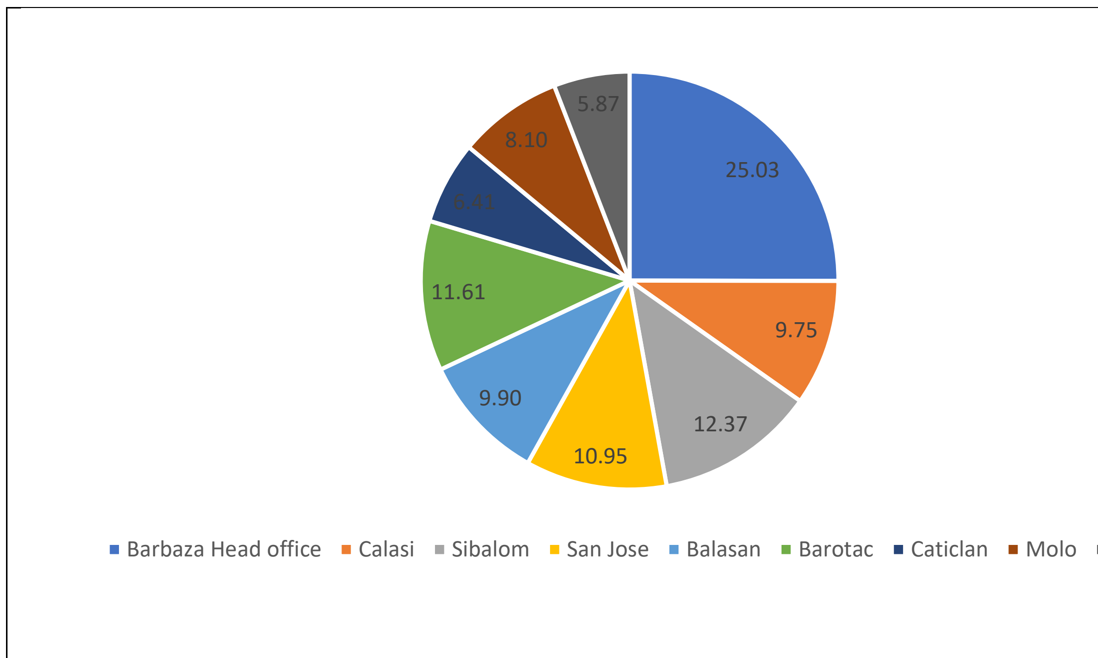
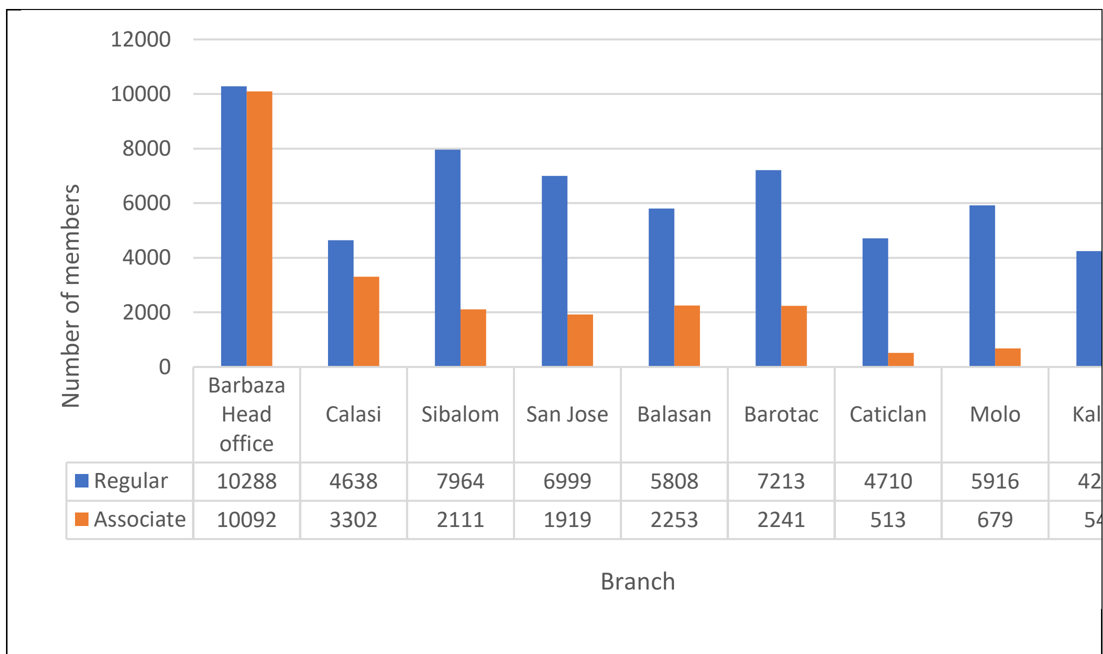


Figure 3.3:

BMPC membership by branch and category in 2018



	Barbaza Head office	Calasi	Sibalom	San Jose	Balasan	Barotac	Caticlan	Molo	Kal
Regular	10288	4638	7964	6999	5808	7213	4710	5916	42
Associate	10092	3302	2111	1919	2253	2241	513	679	54

BMPC members are categorised into (1) regular or associate, and (2) based on participation standing, also called segmentation criteria. A regular member is one with the minimum required shared capital or more, who is entitled to all rights and privileges and has the right to vote and be voted. On the other hand, an associate member is one whose required shared capital is below the minimum, has limited cooperative rights and privileges and has no voting rights. Both the regular and associate members can utilise the services of the cooperative, such as savings, credit, cable TV, marketing of produce, production inputs, supplies, consumer goods, fuel gas, facilities, tools and equipment. About 71% of the total BPMC members are registered into regular membership.

The second category, segmentation criteria, qualifies members according to the length of membership in years, amount of share capital and savings, loan standing and attendance at cooperative assemblies. Segmentation criteria is grouped into five – Diamond, Gold, Silver, Bronze and Brass. The Diamond, Gold and Silver require at least three years' regular membership with good standing, share capital of at least PhP 5,000, an additional annual deposit of at least PhP 200 and a regular monthly deposit of at least PhP 20. The Bronze group requires at least two years of regular membership with good standing and PhP 3000 share capital with additional deposit of at least PhP 150 over the last two years. Good membership standing means the member attends the district assembly at least once in every two years, 50% attendance in the ownership meeting in two years, and good credit standing for the last two years. Meanwhile, the Brass group requires at least two years membership, at least PhP 3000 share capital with at least PhP 10 monthly deposit.

The segmentation criteria define the members' healthcare cost incentives. To aide in description and data analysis, this study defined the segmentation criteria into two categories (Appendix E) - Category A (Diamond, Gold and Silver members) and Category B (Bronze and Brass members). Once a year, members of Category A receive a PhP 300-500 daily hospitalisation benefit for a minimum of three days and a maximum of five days' confinement. However, Category B members do not have hospital benefits under this categorisation. Appendix G summarises the hospitalisation benefits of BMPC members based on segmentation criteria.

Table 3.2 presents the count and percentages of BMPC members per category and in all of its nine branches. In all of BMPC branches, the Barbaza main office has the greatest number of members in the top three segmentation criteria or Category A – Diamond, Gold and Silver. In contrast, the Kalibo branch has all its Category A members belonging to the Silver group. Category A comprises a minute portion of 2.27% of the total segmentation criteria membership. A majority or 97.73% of the BMPC members belong to Category B (Bronze and Brass). The ratio between Category A and Category B is consistent in all of the nine branches, which indicated that most of the BMPC members do not receive the medical care cost-reducing incentive. Bronze and Brass members do not get hospital benefits under the segmentation criteria.

Table 3.2.

Number and percentage of BMPC members per category by branch in 2019

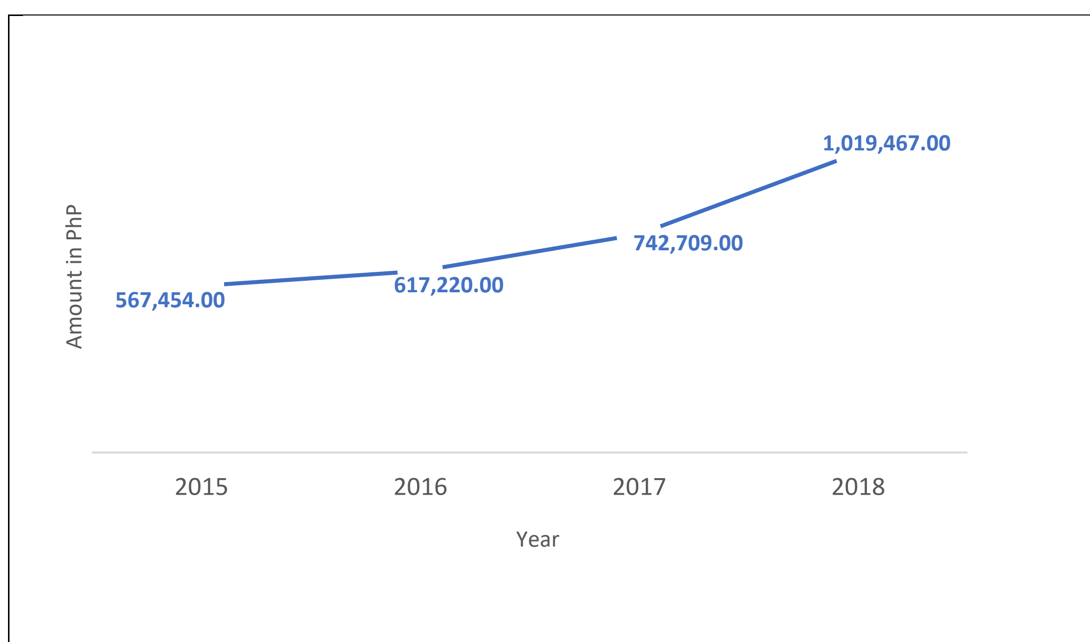
Branch	Segmentation Criteria								
	Category A				Category B				
	Silver		Gold		Diamond		Brass and Bronze		Total number of members in each branch
BARBAZA MAIN OFFICE	143	*0.70%*	248	*1.22%*	187	*0.92%*	19802	*97.16%*	20380
CULASI	58	*0.73%*	121	*1.52%*	46	*0.58%*	7715	*97.17%*	7940
SIBALOM	43	*0.43%*	71	*0.70%*	33	*0.33%*	9928	*98.54%*	10075
SAN JOSE	82	*0.92%*	81	*0.91%*	50	*0.56%*	8705	*97.61%*	8918
BALASAN	68	*0.85%*	89	*1.11%*	58	*0.72%*	7801	*97.32%*	8016
BAROTAC VIEJO	94	*0.99%*	56	*0.59%*	17	*0.18%*	9287	*98.23%*	9454
CATICLAN	50	*0.96%*	76	*1.46%*	21	*0.40%*	5076	*97.19%*	5223
MOLO	68	*1.03%*	61	*0.92%*	0	*0.00%*	6466	*98.04%*	6595
KALIBO	99	*2.07%*	0	*0.00%*	0	*0.00%*	4685	*97.93%*	4784
Total	**705**	***0.84%***	**803**	***0.95%***	**412**	***0.49%***	**82510**	***97.73%***	**84430**

The BMPC Health Program Profile

The BMPC allocates medical funds for its staff medical benefits and other cooperative health services. Since 2014, the BMPC has almost doubled its allocation from 567,000 to more than one million (Figure 3.4). Medical benefits include a 1Coop Health insurance premium, primary care and annual check-ups, and periodic drug testing. Community health services also share a part of the medical fund. BMPC and its partner organisation cater for feeding programs to impoverished school children, provide medical missions for members which include dental and eye check-ups and subsidise PhilHealth premiums of identified member beneficiaries.

Figure 3.4:

BMPC medical fund allocation in 2015 – 2018



Medical mission

The scheduled medical mission is a subsidised or all-expenses-paid initiative of BMPC. It is an outreach activity which supports the provision of primary healthcare to members in rural and remote communities. Local medical professional partners participate, healthcare costs such as medical and dental consultations, vitamins, and prescribed medicines are free at the point of service. Assistance and referrals to specialists are made to clients needing further medical evaluation. Also,

each of the nine branches provides prescription eyeglasses free-of-cost to 20 identified beneficiaries.

Part of the BMPC's health program plan in the last two years was to expand primary healthcare services in branches. In 2018, all of the nine branches were equipped with blood pressure apparatus and trained personnel to provide daily free monitoring. However, no data is available to evaluate the service utilisation or any outcomes. In the 2019 annual plan, branch clinic set-ups manned by adjunct health professionals were considered a priority.

Feeding program

Under the umbrella "Adopt a School Program", a BMPC feeding program collaborated with a local primary public school. In 2018, the "Adopt a School Program" spent PhP 225,922.75 on these initiatives. No data that details the activities completed or the amount allotted for the feeding program is seen in the report.

Micro-health insurance

Micro-health insurance offered to members operates through a medical cooperative which provides a pre-paid health package to the low-income and informal sectors. BMPC partnered and collaborated with 1CoopHealth to pose as the prime health insurer for its staff and members. The partnership started in 2016, when at this time, BMPC invested in stocks with the health insurance provider. Since then, the BMPC has started offering the health plan as part of its allied services. The 1CoopHealth annual premium amounts to 3,600 PhP, equivalent to USD75.30. With member coverage from 18 to 65 years old and 66 to 75 years old with an adjusted premium, the health insurance covers PhP 60,000 per illness for in-patient treatment, PhP 30,000 for emergency treatment, death benefits of up to PhP 20,000, and preventive health care.

As a cooperative incentive, BMPC covers the 1-Coop enrolment and annual premium of all its staff. However, cooperative members enrol voluntarily and shoulder the premiums to use the benefits of 1CoopHealth. As of 2019, a total of 370 out of 84,430 members, or 0.44% across all branches are enrolled.

The BMPC encourages its members to enrol in 1CoopHealth Insurance. However, the popularity of the health scheme has been consistently low. No data to back-up an analysis of this downtrend is available. The 2019 strategic plan indicated using intensive information dissemination on 1CoopHealth to improve the number enrolled.

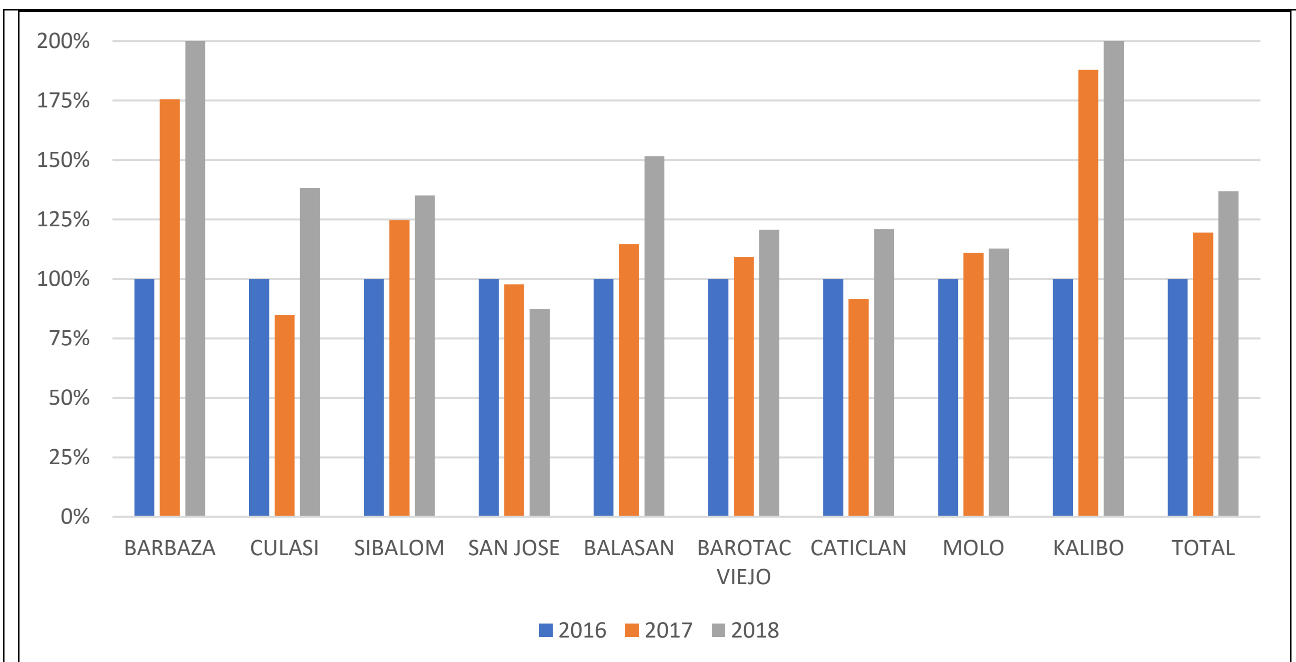
Medical loans

To help members gain access to health services, BMPC offers an alternative health financing scheme in the form of a medical loan. From 2015 to 2018, BMPC had almost doubled its medical fund allocation. The members may use the medical health loan to pay the 1CoopHealth annual premiums or utilise it specifically for health emergencies.

The number of BMPC borrowers under the medical loan scheme increased by 20% in 2017 and further increased by 37% in 2018. The same increasing trends were observed in most of the BMPC branches (Figure 3.5).

Figure 3.5:

Percentage of BMPC members per branch who took up a medical loan from 2016 – 2018



However, only a small fraction (an average of 6.1%) of the total BMPC members took up the medical loan during the three-year period (Table 3.3). With the shallow popularity of 1CoopHealth, it can be inferred that medical loans were preferred for health emergencies. No data, however, was available to identify which health emergencies used the medical loans and why the medical loan was preferred over health insurance.

Table 3.3.

Total number of BMPC members and medical loan borrowers in 2016-2018

	2016	2017	2018
Number of borrowers	3504 *(6.2%)*	4188 *(6.1%)*	4793 *(5.9%)*
Total number of members	**56,461**	**68,824**	**81,430**

I-Coop Initiative

The BMPC assists its members to register with Philippine Health Insurance (PhilHealth) through the I-Coop initiative. The cooperative allocates money from the medical fund to subsidise the PhilHealth annual premium of 50 qualified beneficiaries. Beneficiaries in this health service are those members who could barely pay their premiums. PhilHealth registration is compulsory coverage for all Filipinos, and its execution is built on existing community initiatives (PhilHealth, 1995). As the country's national insurance, it covers services that focus on in-patient care, although selected outpatient care for the poor may be available.

Blood Bank Coop and Anti-Dengue Project

Haemorrhagic dengue fever is endemic in the Philippines, and Western Visayas has experienced a spike in cases since 2015 (Dating, 2019). In response to the increasing demand for whole blood and blood components, the BMPC corroborated with the PNRC to establish the cooperative blood bank. The blood bank aims to provide an immediate supply of blood and blood components to cooperative members in emergencies. Periodic blood donation is conducted in all of

its nine branches to sustain supply in the cooperative blood bank. Blood donors are cooperative members themselves. The cooperative blood bank collected a total of 149 and 130 blood bag components from all of its branches in 2017 and 2018, respectively. No data was made available to determine the amount of blood and its components utilised by its members.

Additionally, the BMPC partnered with local hospitals to provide free dengue test kits, medicines and other assistance to its confined dengue-infected members. Medicines included intravenous fluids, oral rehydration fluids, antipyretics, vitamins and other necessary medicines.

Cooperative pharmacy

The BMPC cooperative pharmacy opened in 2017 at the Sibalom branch with the goal of providing high quality, efficient and safe pharmaceutical care. It also allowed members' access to medicines at affordable prices. With every purchase, the cooperative member is given an individual code which is recorded and used to calculate a patronage refund. A patronage refund is a method utilised by cooperatives to share earnings with its member-owners and are calculated based on the cooperative member's purchase and the profit that the cooperative made on those purchases in that particular year (Frederick & Ingalsbe, 1993).

During the first year of operation, the cooperative pharmacy experienced a net loss of PhP 68,293, which was attributed to the expenses incurred for planning and organising the pharmacy. The second year of operation showed an increased demand of pharmaceutical products from its members. The sales volume rapidly increased from PhP 2,500,728 to PhP 8,164,201. With this surge of demand, the BMPC plans to install an additional pharmacy branch.

3.3. Discussion

The presentation of findings and observations covers existing health initiatives based on the microcredit program design of BMPC. This chapter also outlines and analyses the features that enable and limit the uptake of health initiatives based on socioeconomic conditions and financial capabilities. It also focuses on the contribution of the health program design in the reduction of healthcare service costs.

The demographic profile of Western Visayas reveals that agriculture is the primary sources of revenue for most households; so, this means (usually) men devote most of their time to farming, fishing, mining and other typically male-related jobs. In terms of participation, this household structure contributes to the dominance of females (75%) in the cooperative membership. It leaves women to attend to the demands of cooperative membership duties which need physical attendance, such as attending meetings, settling accounts and other activities. This overwhelming participation in microfinance empowers women to contribute to their families' and communities' economic growth and sustainable livelihoods (ILO, 2007). Women are also considered substantial microcredit clients not only because they tend to register higher repayment rates, but they also appear to apply better household health practices (Littlefield, 2003).

In terms of cooperative service competency, the consistent increase in the number of BMPC members in the past five years could indicate efficient delivery of quality services that meet the needs of its members. BMPC branches are located strategically in close physical contact with their members. Consistent interaction with members helps cooperatives' design mechanisms which in turn, will help them understand the needs and wants of their members (WWB, 2007). Other than microcredit, the products and services offered by BMPC are relevant materials needed in the agriculture industry. Another indicator for service competency of the cooperative is the increased number of regular members (71%) compared to associated members (29%). The regular membership can be attributed to the members' commitment to the cooperative. Both membership classifications can gain the benefits of using the products and services offered by the cooperative. What delineates a regular and associate member is the right to vote and be voted. This qualifying criterion stipulates the cooperative's commitment to promoting best practice and maintaining a transparent and democratic microcredit structure (Nisha Singh, 2010). The significant number of upgraded memberships from associate to regular may indicate that the cooperative is meeting the needs of its members.

In terms of combining health and profit, the segmentation criterion offers additional healthcare cost-reducing incentives to members. This incentive may motivate members to increase their share capital and savings with the cooperative, thus building up its assets which will help members maintain their seasonal consumption and act as a buffer to catastrophic expenditure (Abrar & Javaid, 2016).

But noticeably, most members (97.8%) do not qualify for the top three categories – Diamond, Gold and Silver. The high percentage of non-qualifying members means that the majority are not entitled to the healthcare cost-reducing scheme under the segmentation criterion. For members to forgo upgrading their category may describe the economic landscape for many cooperative members. Most members may not have the capacity to purchase the minimum stock share for membership of the top three categories.

The cooperative's health program has undergone reinventions and advancements in the past five years. BMPC health initiatives further offer their members health protection through health products and health-related services. Most of the health initiatives operate through cooperative and collaborative partnerships, where both BMPC and its partner organisations emphasised the health needs of their members and their capacities to develop and deliver effective health services. A partnership is when the cooperative works with another organisation for a specific goal, such a delivery of health initiatives, health products or services (Ruducha & Jadhav, 2018).

To summarise, the design of the BMPC integrated health program uses the structures outlined below.

3.3.1. Subsidy or outreach

Health initiatives under the subsidised mechanism are direct healthcare services which include primary health care, a feeding program, I-Coop, blood donation and a dengue campaign. Except for the I-Coop where PhilHealth's annual premiums are paid exclusively by the BMPC, other health services under this program function in collaboration with partner organisations such as PNRC, PhilHealth, a local primary school, and local medical facilities. In networking with local government organisations with specialised functions, there is the advantage of spending less time and fewer resources on needs assessments, planning and priority setting for a health initiative. The partner organisations had already identified the health issues and needs confronting the population in the locality.

In this setting, organisational arrangements play an important role. The collaborative partnership is set to share resources, decision-making and accountability (Ruducha & Jadhav, 2018). The role of each partner is outlined where BMPC, as a financial institution, may contribute financial support, and its

partner organisation may provide physical means such as human resources and material needs.

The health services offered in this mechanism directly favour a reduction in healthcare costs for BMPC members. Beneficiaries of the PhilHealth annual premiums can be certain that at least 30% of their hospitalisation bills and some outpatient charges are covered. Recipients of subscription glasses, dengue kits and blood components are assured of cost-free health products. The purpose of a medical mission is to physically bring health services and products closer to a group of the population. In doing so, BMPC members can take advantage of both the direct and indirect costs of healthcare services because there is no more travelling expenditure, or consultations. Vitamins and prescribed medicines are also free at the point of service.

Feeding programs in the Philippines are implemented under the Republic Act 11037 by the Department of Social Welfare (DSWD) and the Department of Education in coordination with local government and non-government units (NGOs), such as the BMPC. The purpose of the program is to deliver nutritional food to undernourished school children and/or maintain their health. Although there is a lack of data to support its outcome or impact, the cooperative's feeding program may help reduce the burden of diseases caused by undernourishment and hence improve the health of children. It can be inferred that through this program, the cooperative may also indirectly extend healthcare cost-reduction incentives to cooperative members.

3.3.2. Cooperative-based micro-health insurance and health loans

The BMPC health microinsurance is structured using a cooperative-based health program wherein its provisions are governed in partnership with a health maintenance cooperative, like 1CoopHealth. A health maintenance cooperative, as an HMO, is deemed to be an alternative model for UHC coverage in the Philippines (Literatus, 2019). Although BMPC and 1CoopHealth work together for a common health initiative, each cooperative maintains autonomy in budgeting, staffing and decision-making. BMPC may lack the overall resources to run its own micro-health insurance, so cooperative partnering can be the best solution. The BMPC thus functions by distributing the plan to its members, collecting and remitting the

premium to the cooperative HMO. Meanwhile, the cooperative HMO builds the healthcare platform using its institutional know-how, technical expertise, data and network technology and good governance (Miclat, 2018). Like other community-based health insurance, the health maintenance cooperative focuses on a range of prioritised health services. This prioritisation of services helps reduce some health service costs and eliminate unnecessary expenditure, thus making the programs sustainable (Taylor & Marandi, 2008).

With an annual premium of PhP 3600, the incentives covered in 1CoopHealth can provide substantial financial health protection to up to PhP 60,000. Alongside PhilHealth, the cooperative-based HMO eases the burden of medical care costs incurred during hospitalisation. Its pre-paid and cashless packages for treatment and preventive care also reduce health shocks caused by health emergency needs.

Both the BMPC and its partner cooperative-based HMO strive to achieve greater coverage among their members. However, acceptance of this health product is extremely low at 0.45%. This finding is similar to existing literature showing low enrolment of micro-health insurance (Iqbal et al., 2017; Leatherman et al., 2012). There is also strong evidence that microinsurance is as yet unable to proportionately reach the most vulnerable households (Mirko Bendig & Arun, 2011). Although there is insufficient information to provide enough evidence, one of the factors for such low acceptance could be the misconception that HMO memberships are only for the rich (Miclat, 2018). Additionally, since many cooperative members are poor, the low micro-health acceptance may also be caused by expenditure shocks from using other financial services (Steiner, Giesbert, & Bendig, 2009). Another reason may be the difficulty in understanding what is and what is not covered under the health insurance policy (Ito & Kono, 2010).

In contrast to micro-health insurance, there is a higher acceptance of using medical loans. However, the acceptance rate average of 6.1% from 2016-2018 could still be considered low. This finding is very similar to the results in Burkina Faso, Bolivia and Benin where medical loan take-ups were all low, at about 3% (Geissler et al., 2013). Although the take-up rates appear low, BMPC records indicate that cooperative members find medical loan products more appealing than 1CoopHealth. There is no information to determine the factors for the low uptake of medical loans among BMPC members; so the possibilities of using an alternative type of loan for

health expenses (Leive & Xu, 2008) or selling assets to cover up health catastrophes (Genoni, 2012) may be considered.

The medical loan is designed for large health expenses with lower interest rates and long repayment periods (Geissler et al., 2013), or flexible repayment terms (Reinsch, Dunford, & Metcalfe, 2011). But for the poor, healthcare expenditure is already catastrophic, and payments due to medical loan interest are an additional part of the financial burden. In this case, the medical loan may mitigate healthcare costs, but not necessarily reduce them.

While health loans and reduced health purchases provide a positive impact on health for marginalised groups, medical care affordability continues to be an issue. Also, since health loans are financial liabilities and income generation is less in times of illness, the guarantee to recuperate health and settle loans on schedule may be unforeseeable. The consequences of ill health, unpaid loans and an inability to secure money for healthcare can push poor people to put off needed care; thus, risking more severe illness.

3.3.3. Patronage refund from the cooperative pharmacy

The objective of microfinance is to provide financial services to its members. The financial strategy of the cooperative pharmacy is designed to integrate both business and health investment. The pharmacy is not only a cooperative business product but also an extension of the BMPC health initiative. A desirable outcome for this business venture should be manifested by the accessibility and availability of acceptable and affordable pharmaceutical products. However, the road towards this end can be challenging. It will require robust institutional arrangements which mean well-planned and organised processes as well as continued provisions of adequate health information and financing.

The net loss during the first year of operation, leading to a net surplus in subsequent years of operation indicated a high use of medicines and other pharmaceutical products among BMPC members. From a business perspective, its triple increase in sales volume indicates a positive business outcome. But with low take-ups of 1CoopHealth and medical loans, pharmaceutical product surges in sales volumes might need to be evaluated. No information was gathered to determine the grounds for this upsurge, but it may indicate self-treatment practices among BMPC members. Self-medication means selecting and using medicines to treat self-

recognised or self-diagnosed conditions or symptoms (Ruiz, 2010). Self-medication is a popular approach to treatment for some common illnesses (Zhao & Ma, 2016), and was seen to be the first line of defence against illness in Bolivia, Burkina Faso and Benin. In Pakistan, 82% of respondents opted for self-treatment for headache (Shah, 2013), while national survey results of 27% preferring to self-treat was seen in China (Yuefeng, Keqin, & Xiaowei, 2012). While self-medication indicates that the person takes an active role in his/her own health care, it could place him/her in potential danger and create health risks that will increase the burden of disease and healthcare expenditure.

Chronic illnesses such as hypertension and other cardiac-related diseases, diabetes, renal and skin diseases are among the top causes of morbidity in the region. Although data that summarises the health status and treatment needed by BMPC members were not available at the time of the study, the health status data of the region's health department indicates that some cooperative members may need to use healthcare services and/or take maintenance medications. Adherence to medical care will prevent or slow down progression of an illness. However, medical treatment is catastrophic expenditure for many people (Taber et al., 2015) and the health costs for those seeking treatment showed that the majority of the costs were incurred for medication (Geissler et al., 2013). The provision of quality, low-cost pharmaceutical products may reflect the cooperative's integration of business and health investments into its programs. It also manifests the cooperative's intention to enhance and strengthen its advocacy on health.

The cooperative ownership of the BMPC pharmacy provides equity shares to its members who enjoy patronage refunds each time they spend at the cooperative pharmacy. So aside from the advantage of purchasing effective and lower-cost medications, the cooperative members expect to receive dividends in a specified time. The operation of the cooperative pharmacy demonstrates BMPC's attempt to apply profit generation in its business while providing medical care cost-reducing interventions to its members.

3.4. Conclusions

This section summarises and highlights the general findings of the chapter. The finding shows that the cooperative's health program is designed to meet the

needs of its members and organisational arrangements with partner organisations. Two significant factors that anchored the design of its health program were identified – the capacities of the cooperative and its partners; and the needs and capabilities of its target beneficiaries. This finding aligns with Ruducha's concept that the sustainability of an MFI health program is dependent on the client's health needs and its operational and financial capabilities.

The integrated microfinance and health program is designed to operate in three main structures – subsidised or outreach, microinsurance and health loans, and patronage refunds. For the outreach and subsidised health initiatives, the cooperative engages with partner organisations in the delivery of its activities. In this scheme, the cooperative gains the benefits of pooling resources and sharing of skills and expertise (Nanthagopan, 2011). Partner organisations such as PhilHealth, PNRC and local primary schools have distinct and focused mandates. They have already identified the needs and issues of the specific population in a certain area; thus, the cooperative is supported in the planning of health initiatives. More so, since the health services rendered are minimal or free-of-cost, targeting specific beneficiaries helps the cooperative conserve financial resources. This finding supports Wright et al.'s (1998) statement regarding the significance of health programs setting priorities such as for those people needing them most. It also supports Taylor and Marandi's (2008) conclusion that prioritisation of healthcare needs will ensure MFI's health services efficiently use their resources to promote and support health among their members.

Other initiatives of the health program are within the premises of business investments. Health initiatives anchored by microcredit business perspectives such as health loans and microinsurance aim to protect their members against OOP health expenditures and healthcare shocks. These health initiatives also promote a reduction in healthcare costs; however, they do necessitate outlays which people of low income would be less likely to prioritise. So, in spite of its cost-reducing benefits and protection against OOP expenditure to finance healthcare costs, cooperative members are not inclined to enrol in these schemes. This finding is consistent with the existing literature where microinsurance medical loan uptakes were also low (Geissler et al., 2013; Iqbal et al., 2017).

The cooperative's business venture in providing pharmaceutical products facilitates access to affordable medicine and at the same time affords financial

viability to its members. Access to quality affordable health products is embodied in the objectives of UHC and is a significant feature of Ruducha's health program design. However, purchases of medicines and other prescribed pharmaceutical products should ensure strict adherence to purchase policies in order to prevent potential danger and health risks. Meanwhile, the health initiative's patronage refund set-up allows cooperative members to gradually build up their income which can contribute to a household's economic growth.

To appreciate the significance of a health initiative, once implemented, its outcomes or impact should be evaluated. This study found that there are no assessments done to examine the outcomes of completed health projects. There is virtually no data available to help assess the completed health projects, due to a lack of data recording. This lack of sufficient data was a significant gap that constrained the review of the program's implementation.

CHAPTER 4: SUMMARY AND CONCLUSIONS

The costs of healthcare services and treatment are confronting. For Filipinos, OOP health spending is the dominant option. However, for the poor, forgoing or not adhering to medical care and treatment is the only option. A marginalised population needs access to both financial and health services for income viability and better health, which MFIs have played significant roles in providing. Efforts in combining health with microfinance activities have been instrumental in improving healthcare access and use.

This thesis evaluated the contributions of microfinance to healthcare, particularly in reducing poverty-driven healthcare costs. This thesis has two parts – a systematic review of the literature which explored MFI's role in reducing healthcare costs, and a review that examined the practice of integrated microfinance and health programs in the Philippines.

The systematic review of the literature found that most MFI health programs are designed to improve health education and sanitation, women's empowerment, and mitigation of healthcare costs. However, MFI health initiatives that directly reduce medical care and treatment costs are few. The healthcare cost-reducing initiatives seen were mostly provided by a few large and efficient MFIs in collaboration and partnership with other organisations. Although challenging, replication of these MFI-healthcare cost-reducing schemes by other not-so-strong MFIs will further the attainment of the healthcare agenda and other global health organisational objectives. Its replication will require the administration to the poor of appropriate doses of microcredit and other organisations' support services that address the poverty trap and healthcare inaccessibility. With this approach, strong MFI advocacy on health, government and NGO support services and appropriate policies need emphasis.

The second study explored the integrated MFI health program of a model MFI in the Philippines. The study found that an integrated microfinance and health program could potentially assist with achieving the objectives of the CDA and *Healthy Philippines 2022* – to promote health and help alleviate healthcare costs. However, to assess its potential, the program needs to have outcome or impact evaluation. The integrated MFI health program may only be deemed successful if its results will

effectively and consistently show the graduation of improving healthcare access among impoverished MFI members, the desirable program outcome of partner's agencies and MFI's profitable operations. Nevertheless, there are indications that most health initiatives are young. Future studies that will revisit its program design and implementation on a broader scale are encouraged.

The study found that an MFI health program potentially facilitates the utilisation of healthcare and health-related services among its members. The selection of implementing partners of the health activities was found to be appropriate. Both the MFI and its partner had identified health issues which are aligned to local and national priorities. However, the program needs to create an improved mechanism for data collection that will facilitate in assessing every completed health initiative. Evaluating completed projects can provide a picture of the health activities' outcome. The study found this lack of data as a significant gap and substantially constrained the analysis of the program's implementation.

This study can contribute to the body of knowledge that exists about microfinance and improved healthcare use through integrated healthcare programs. It validates the view that within the context of microcredit, financial services are not only confined to the premises of business investment but also investments in health. More studies that will evaluate the integrated MFI health initiatives are recommended to further identify gaps, outcome or impacts of the program.

Overall, the findings in this thesis not only substantiate the claim that MFIs are significant partners in health, but also provide evidence that its integrated health programs could potentially reduce poverty-driven healthcare costs. These findings can serve as a strong argument for the CDA to push proactive policies that will feature the implementation of health services as a further microfinance activity.

4.1. Limitations

The study primarily covers the integrated microcredit and health programs of a model cooperative in the Philippines. However, this study does not intend to ascertain nor attempt to make generalisations from the sample cooperative.

The study was limited by a short time frame. There was a passive response from other cooperatives and respondents which resulted in limited data. Additional data from other MFIs would have been important sources of information, especially in identifying sound bases for comparisons of the integrated microfinance and health programs among MFIs. The review was also limited by the lack of indicators and achievement data that made it difficult to assess the output of the completed MFI health initiative.

The course of this study has been adversely impacted by the emergence of COVID-19. Communications, data and information gathering between key informants and the researcher were impeded and cut short.

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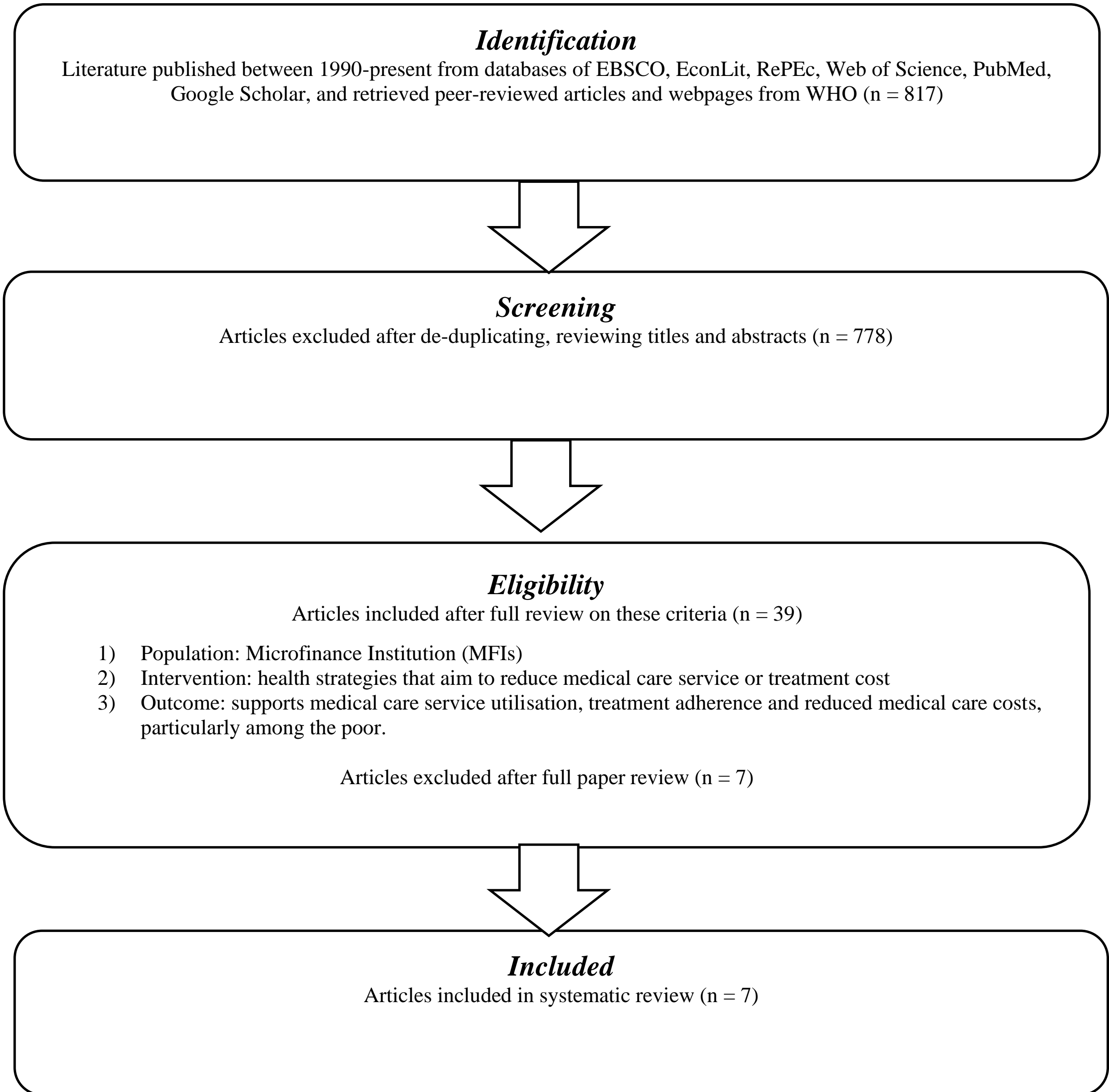
Appendix A: PRISMA 2009 Flow Diagram



Appendix B: Characteristics of the included articles

Reference/ Year	Type of article	Aim	Country/ Population	Intervention	Study Design	Results/Key Findings in relation to healthcare cost
Colom et al. (2018)	Journal article	To quantify the impact of cash transfer and microfinance interventions on a selected list of tuberculosis (TB) risk factors and assess their potential role in supporting TB control.	Guatemala	Partnership with a healthcare organisation. A "mobile clinic" approach that focuses on serving female clients in their own homes and communities is a useful approach when target populations live in rural, isolated areas.	Case study	MFI Friendship Bridge alliance with Wuqu Kawoq, a primary healthcare system providing services in rural Guatemala, reduced the barrier to care by offering preventive services at no cost, low treatment package for clients with confirmed diabetes and hypertension and assistance with follow-up care at no cost for positive cervical and breast cancer screening
Devadasan et al. (2007)	Journal article	To determine whether insured households are protected from CHE	India	Provision of community health insurance among the indigenous population	Comparative study	CHI scheme reduced OOP among insured members as they were entitled to hospital care up to US$23, while noninsured members paid the whole of hospital bill costing between US$15-20.
K. H. Geissler and Leatherman (2015)	Journal article	To examine the supply- and demand-side factors in a microfinance client population receiving integrated services.	Latin America	Universal screening program and primary care services provided in conjunction with microfinance loans	Case study analysis	The components of the Pro Mujer health program address four dimensions of healthcare access: geographic accessibility, availability, affordability, and acceptability. Significant progress has been made to meet basic health needs
Hamid et al. (2011b)	Journal article	Examine the impact of micro health insurance placements in health awareness, health utilisation and health status of microcredit members in rural Bangladesh	Bangladesh	Provision of micro health insurance	Econometric analysis	MFI provision of a healthcare package directly from health centres that it operates, showed reduced consultation fees, discounts on drugs, tests, and hospitalisation, and free annual check-ups and immunisation
Lashley (2008)	WHO Bulletin	To create a health enterprise that seeks to help low-income people through MFI service	Guatemala	Healthcare model creating health franchises, using groups of affiliated doctors	Archived news bulletin	On the preliminary survey, 76% of respondent felt that access to service was vital. Healthcare model franchise helped clients generate income and gained access to quality and affordable health care
Muñoz et al. (2011)	Journal article	To maximise treatment adherence of antiretroviral treatment among participants living with HIV/AIDS	HIV/AIDS clients in Peru	Community-based accompanied treatment with MFI loans and financial	Comparative study	Clients under community-based accompaniment with supervised antiretrovirals (CASA) program had higher adherence to treatment.
S. Saha et al. (2015)	Journal article	To investigate the effect of combining health intervention with a microfinance based SHF on health behaviours and outcomes	Self-help group in India	Access of SHG to microfinance offering health products such as mobile health camps, health awareness campaigns and insurance	Comparative study	One participating MFI offered an annual contribution of US$3 from each member, providing protection for up to US$83 in medical expenses per year

Appendix C: Critical Appraisal Skills Programme (CASP) checklist of the included articles

Reference/Criteria	The research aims clearly stated	Appropriate methodology	Study design addressed the aims of the research	Recruitment strategy appropriate to the aims of the research	Data collected in a way that addressed the research issue	Relationship between researcher and participants been adequately considered	Ethical issues have been taken into consideration	Data analysis sufficiently rigorous	A clear statement of findings	Research is valuable	Total Mark
Colom et al. (2018)	y	y	y	y	y	Y	Y	Y	Y	Y	10 High Quality
Devadasan et al. (2007)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10 High Quality
K. H. Geissler and Leatherman (2015)	y	y	y	y	y	Y	NK Secondary Data	Y	Y	Y	10 High Quality
Hamid et al. (2011b)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10 High Quality
Lashley (2008)	Y	NK	NK	NK	NK	Y	NK	NK	Y	Y	4 Good
Muñoz et al. (2011)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10 High Quality
S. Saha et al. (2015)	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	10 High Quality

Legend: Y = yes; N = no; NK = not known

HQ (high quality) = 10 points VG (very good) = 7-9 points G (good) = 4-6 points A (acceptable) = 1-3 point

Appendix D: List of review documents

CDA Memorandum Circular 2018-01 Revised Guidelines on Social Audit of Cooperatives
BMPC reports

- Membership report 2016 - 2018
- Descriptive report of annual bloodletting
- Medical Fund allotment 2015 – 2018
- Cooperative blood bank fund 2017 – 2018
- Cooperative Assurance Centre report 2016 – 2018
- Social Services report 2016 – 2018
- Cooperative pharmacy revenue report 2017 – 2018
- Medical loan report 2016 – 2018
- Annual plan report (Goal 7: To enhance and strengthen coop's advocacy programs.) 2017-2018

Cooperative Health Management Federation 2014 Annual report
I Cooperative Insurance System of the Philippines 2014 - 2017 Annual Report

Appendix E: Segmentation criteria re-classification

(Request granted to copy the provisions in this table from the 2018 BMPC annual report)	
CATEGORY A	**CATEGORY B**
Diamond	**Bronze**
At least five (5) years as a regular member.	At least two (2) years as a regular member.
Share capital of at least P15,000.00 with additional deposit of at least P500.00 annually for the last two (2) years.	Share capital of at least P3,000.00 with additional deposit of at least P150.00 annually for the last two (2) years.
Attended the District Assembly at least once for the last two (2) years.	Attended the District Assembly at least once for the last two (2) years
Attended at least 50% of the Ownership/ MES in a year for the last two (2) years.	Regular monthly savings deposit of at least P10.00 or P30.00 in a quarter for the last two (2) years.
Regular monthly savings deposit of at least P50.00 or P150.00 in a quarter for the last two (2) years. No loan amortisation in default for the last two (2) years. **Gold** At least four (4) years as a regular member. Share capital of at least P10,000.00 with additional deposit of at P350.00 annually for the last two (2) years. Attended the District Assembly at least once for the last two (2) years. Attended at least 50% of the Ownership/ MES in a year for the last two (2) years. Regular monthly savings deposit of at least P90.00 in a quarter for the last two (2) years. No loan amortisation in default for the last two (2) years. **Silver** At least three (3) years as a regular member. Share capital of at least P5,000.00 with additional deposit of at least P200.00 annually for the last two (2) years Attended the District Assembly at least once for the last two (2) years. Attended at least 50% of the Ownership/ MES in a year for the last two (2) years. Regular monthly savings deposit of at least P20.00 or P60.00 in a quarter for the last two (2) years. No loan amortisation in default for more than 90 days for the last two (2) years. No loan amortisation in default for more than 90 days for the last two (2) years.	No loan amortisation in default for more than 30 days for the last two (2) years. **Brass** At least two (2) years as a regular member. Share capital of at least P3,000.00 with additional monthly deposit of at least P10.00

Appendix F: Number and percentage of BMPC members per category by branch

Branch/Category	Silver	Gold	Diamond	Brass and Bronze	Total number of members in each branch
BARBAZA MAIN OFFICE	143	248	187	19802	20380
CULASI	58	121	46	7715	7940
SIBALOM	43	71	33	9928	10075
SAN JOSE	82	81	50	8705	8918
BALASAN	68	89	58	7801	8016
BAROTAC VIEJO	94	56	17	9287	9454
CATICLAN	50	76	21	5076	5223
MOLO	68	61		6466	6595
KALIBO	99			4685	4784
Total	705	803	412	82510	84430
Percentage	**0.84%**	**0.95%**	**0.49%**	**97.73%**	**100%**

Appendix G: Hospitalisation benefits for BMPC members based on segmentation criteria

Member Category	Hospitalisation benefit per day	Minimum days confinement	Maximum days confinement	Availed confinement per year
Diamond	PhP 500	3	5 days	1
Gold	PhP 400	3	5 days	1
Silver	PhP 300	3	5 days	1
Bronze	0	0	0	0
Brass	0	0	0	0

Appendix H: Letter from CDA Director, October 2019

COOPERATIVE DEVELOPMENT AUTHORITY
827 Aurora Blvd., Service Road, Brgy. Immaculate Conception, 1111 Cubao, Quezon City, Philippines
http://www.cda.gov.ph helpdesk@cda.gov.ph CDA @CDAPhils PH Cooperatives

October 31, 2019

LOLITA L. ARANAS
Lolita L. Aranas@usq.edu.au

Dear Ms. Aranas,

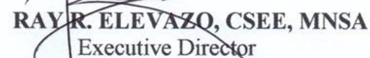
Greetings!

We thank you for your interest in conducting a study regarding the role of Multipurpose Cooperatives in alleviating healthcare cost in the Philippines. We hope that your study will provide insights on how our cooperatives are addressing the medical and health care needs and concerns of their members

In view thereof, we are approving your request to conduct survey to cooperatives which you may deem responsive to your study.

Thank you.

Very truly yours,



RAY R. ELEVAZO, CSEE, MNSA
Executive Director

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