Global Child Mortality and Local Realities:

A Case-Study of Guinea-Bissau

Ingibjörg Ösp Ingólfsdóttir

Lokaverkefni til MA–gráðu í Þróunarfræðum

Félagsvísindasvið

HÁSKÓLI ÍSLANDS

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Leiðbeinendur: Jónína Einarsdóttir, Sigríður Baldursdóttir og Geir Gunnlaugsson

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I would like to express my sincere gratitude to the following list of collaborators that contributed to my research: First and foremost my instructors, Jónína and Geir, for giving me the idea and opportunity to study a subject that has become very close to my heart. Jónína´s guidance and knowledge through this whole process has been inspiring and encouraging. Sigga, who Jónína introduced to me. Sigga helped me to plan and conduct my interviews, invited me to stay at her house in Bissau and introduced me to her friends and neighbours in Bissau. She made this research possible and has become a dear friend. Thank you so much. I would also like to thank all the women and health care workers for participating in my research and giving me their time. Thanks for your insights and honesty. The staff at the Regional Health Board in Oio, for the information, their help and kindness and people in the Bandim Health Project, especially Mr. Joaquim Gomes, for helping with my visa. I would also like to thank my friends: Elma, Elva and Unnur, for proofreading the manuscript; and Ingunn, for the technical assistance. In addition, I have to thank my parents for always encouraging me and trying to understand me, in whatever I have done in my life. I know that my need to travel the world has often worried them but it has been very important for me to know that they are always there if I need them. Lastly, during my time in Guinea-Bissau there was one little boy who stole a piece of my heart, little Suleiman. I met him in a hospital when he was sick and followed him and his family go through the health care system, from their hometown to Bissau. Watching them gave me an insight into the situation in Guinea-Bissau and that was invaluable. During the writing process Suleiman has been my inspiration and a reminder of my experiences in Guinea-Bissau. Thank you.

This is for Suleiman and all the other children of Guinea-Bissau
who all deserve the best chance to health and happiness.

Útdráttur

Inngangur: Á hverju ári deyja allt að 8 milljón börn yngri en fimm ára í heiminum. Þrátt fyrir að tíðni barnadauða hafi lækkað mikið síðustu áratugi er lækkunin mismikil eftir heimshlutum og tíðnin er hæst í lágtekjulöndum.

Markmið: Skoða 1) sögu hnattrænna aðgerða gegn barnadauða, árangur slíkra aðgerða og stuðning alþjóðasamfélagsins við þær; og 2) viðhorf og reynslu heilbrigðisstarfsmanna og mæðra á barnadauða og heilsugæslu barna í lágtekjulandi sunnan Sahara með það að markmiði að greina staðbundnar aðstæður í ljósi alþjóðlegrar umræðu og aðgerða.

Aðferðafræði: Stuðst við fræðigreinar og alþjóðlega umræðu um barnadauða, viðtöl tekin við heilbrigðisstarfsfólk og mæður í Oio héraði, Gíneu-Bissá, í mars 2010 og gögn um heilbrigðisþjónustu sama héraðs fyrir árið 2008.

Niðurstöður: Rannsóknir benda til þessa að koma megi í veg fyrir stóran hluta dauðsfalla barna yngri en fimm ára með einföldum og vel þekktum íhlutunum. Samfélags- og efnahagslegir þættir og aðgengi að almennri heilsugæslu og sjúkrahúsum lækka barnadauða og stuðla að heilbrigði barna. Heilbrigðiskerfi Gínea-Bissá skortir bæði fjármagn og úrræði til að veita slíka heilbrigðisþjónustu. Mæður og heilbrigðisstarfsfólk nefna fátækt sem mikilvæga hindrun þess að börn fái viðeigandi heilbrigðisþjónustu og tjá þörf fyrir betri samgöngur og ódýrari lyf.

Ályktun: Ef alþjóðleg loforð um fjármagn væru efnd og áherslum þróunaraðstoðar væri breytt með áherslu á aðstoð við lönd sem þurfa mest á henni að halda, eins og Gínea-Bissá, væri mögulegt að koma í veg fyrir fjölda dauðsfalla barna. Mikilvægt er að tryggja gott og stöðugt aðgengi þungaðra kvenna og ungra barna í lágtekjulöndum að góðri almennri heilsugæslu og vel útbúnum sjúkrahúsum ef þörf krefur.

Leitarorð: Barnadauði, Þúsaldarmarkmiðin, heilbrigðisþjónusta, fátækt, samgöngur, Gínea-Bissá.

Abstract

Introduction: Each year nearly 8 million children under the age of five years old die worldwide. Despite the fact that the child mortality rate has dropped significantly in the last few decades, the decrease has been uneven globally and the highest rates are in low-income countries.

Objective: Examine 1) the history of global actions against child mortality, results of such actions and the support of the international community; 2) the views and experience of health care workers and mothers, on child mortality and child health services in a low-income Sub-Saharan country with the aim of trying to identify the local socioeconomic factors in correlation with global discussion and actions.

Methodology: Research the literature and global discussion on child mortality, interviews with health care workers and mothers in Oio region, Guinea-Bissau, were conducted in March 2010 and health care service data from the same region for the year 2008.

Results: Research suggests that most deaths among children under the age of five years old are preventable with simple and well-known interventions. Socioeconomic factors and access to primary health care services and hospitals lower the child mortality rate and contribute to children's health. Guinea Bissau´s health care system lacks both finance and resources to provide such health care service. Mothers and health care workers name poverty as an important obstacle of children receiving appropriate health care service and express a need for better transport and cheaper drugs.

Implications: If international commitments were kept and policies regarding allocation of aid were changed to give aid to the countries that need aid the most, like Guinea-Bissau, these countries could get the funding they need to construct a functional health care system and provide essential primary health care to fight child mortality.

Key words: Child mortality, Millennium Development Goals, health care, poverty, transport, Guinea-Bissau.

Foreword

This thesis represents 60 ECTS of my MA in Development Studies at the University in Iceland. Throughout my research I have had three instructors: Jónína Einarsdóttir, Professor of Anthropology at the University of Iceland, Sigríður Baldursdóttir, Phd Student in Social Anthropology at the University of Iceland and Geir Gunnlaugsson (MD, PhD, MPH), Medical Director of Health at the Directorate of Health and Professor of Public Health in the School of Health and Education, Reykjavík University.

I have worked as a nurse in a hospital paediatric unit in Iceland since receiving my B.Sc. in Nursing, almost six years ago. During my studies, work and travel around the world I nurtured interest in development aid, especially in relation to children's health. I wanted to broaden my horizon and decided to register as a student in Development Studies at the University of Iceland. During my first semester Jónína was one of my teachers and after Geir had given a lecture on child mortality, that gave me the idea for the subject of my thesis, she encouraged me to pursue this subject and helped me to study it in more detail. Jónína og Geir have done number of studies on child mortality and related issues in Guinea-Bissau and also lived in the country for eight years. The two of them gave me the amazing opportunity to go to Guinea-Bissau and study the subject of child mortality.

Table of content

Abbreviations

AARR	Average annual rate of reduction
ACSD	Accelerated Child Survival and Development Project
ARI	Acute respiratory infection
CHW	Community Health Worker
DAC	Development Assistance Committee
DHS	National Demographic and Health Surveys
DPC	Difficult Partnership Country
DTP	Diphtheria, Tetanus and Pertussis (vaccine)
EPI	Expanded Programme on Immunisation
GDP	Gross Domestic Product
GNI	Gross National Income
GNP	Gross National Product
GOBI	Growth, oral rehydration, breastfeeding and immunizations
HIC	High Income country
IMCI	Integrated Management of Childhood Illness
IMF	International Monetary Fund
LDCs	Least Developed Countries
LIC	Low Income Country
MDGs	Millennium Development Goals
MIC	Middle Income Country
MICS	Multiple Indicator Cluster Surveys
MINSAP	Ministry of Public Health
NGO	Non-Governmental Organisation
ODA	Official Development Aid
OECD	The Organisation for Economic Co-operation and Development
ORT	Oral rehydration therapy
PAIGC	The African Party for the Independence of Guinea and Cape Verde
UN	United Nations
UNDP	United Nations Development Programme
UNPD	United Nations Population Division
UNICEF	The United Nations Children's Fund
U5MR	Mortality rate of children under the age of five years old

WFP World Food Programme

WHO World Health Organisation

1 INTRODUCTION

It has been estimated that 7.7 million children, under the age of five years old, died world wide in the year 2010 (Rajaratnam et al., 2010). Yet, research indicates that most of these deaths could have been prevented with well-known and widely used health care interventions (UNICEF, 2008a). Therefore, it is safe to assume that improved and accessible health care with appropriate health care measures is the key to lower the U5MR but research shows that access and coverage of health care is much lower in low-income countries than in the high-income countries (WHO, 2010). Various organizations and foreign aid agencies have contributed and made commitments in the fight against child mortality. Among the commitments made are the eight Millennium Development Goals (MDGs) that the international community and institutions have set to achieve by the year 2015. One of the eight goals, millennium development goal number four (MDG 4), is to reduce the child mortality rate among children under the age of five years old by 2/3 between the years 1990 and 2015. Research shows that impressive progress has been made towards the goal in recent decades, however the reduction in the child mortality rate has been very uneven globally and it has not been as rapid as it needs to be to reach MDG 4, especially not in the most affected countries. This raises the question whether reaching the MDG 4 is attainable, at least in the countries that have the highest child mortality rate and need it the most (UNICEF, 2009a).

Most of the countries with the highest child mortality rate are in Africa. The continent is divided by the Sahara desert, which is the largest in the world. The division is not only geographical because in Sub-Saharan Africa are most of the poorest and most underdeveloped countries in the world. Sub-Saharan Africa subsequently has the highest child mortality rates (UNICEF, 2009a). One of the countries in Sub-Saharan Africa is Guinea-Bissau, which has the sixth highest child mortality rate in the world but the country is affected by poverty, bad economy and political instability (Einarsdóttir, 2007).

The objectives of my research is to examine 1) the history of global actions against child mortality, results of such actions and the support of the international community; 2) the views and experiences of health care workers and mothers, on child mortality and child health services, in a low-income Sub-

Saharan country with the aim of trying to identify the local socioeconomic factors in correlation with global discussion and actions.

For my research I wanted to go to a country with a high child mortality rate and try to understand the social factors that can be an obstacle in lowering the child mortality rate and learn how mothers and health care workers in such a country view the problem. I was lucky that my instructors, Jónína and Geir, gave me the opportunity to go to Guinea-Bissau, where I spent one month conducting research on child mortality. I interviewed health care workers and mothers, on child mortality and health care of children at three hospitals, one health centre and one village health unit in Oio region, Guinea-Bissau, in March 2010.

This MA thesis is divided into seven chapters. After the introduction, in the second chapter, I review the history of child mortality, its distribution in the world and main causes as well as reviewing development aid in relation with child mortality. In addition, I review the policies, projects and strategies that have been applied to improve the situation. In the third chapter I outline the setting of the research in Guinea-Bissau, and Oio region. I also explain the operation of the hospitals, the health clinic and the village health unit I visited. In the fourth chapter, I describe the methodology of the research. Chapter five outlines the results of my study and chapter six discusses the findings of my research in the light of the theoretical background. In chapter seven, the final chapter, I present conclusions on the findings of the thesis.

2 CHILD MORTALITY

The UNICEF report *The State of the World's Children 2008* (2008a, n.p.) states:

> Child mortality is a sensitive indicator of a country's development and telling evidence of its priorities and values. Investing in the health of children and their mothers is not only a human rights imperative, it is a sound economic decision and one of the surest ways for a country to set its course towards a better future.

With the aim of preventing stagnation and to promote progress across all aspects of human wellbeing, governments worldwide met in the year 2000 and adopted a set of eight Millennium Development Goals (MDGs) that all 192 United Nations member states, and at least 23 international organizations, have agreed to achieve by the year 2015. The goals aim to eliminate poverty and promote human rights and social justice by reducing extreme poverty, reducing child and maternal mortality rates, fighting disease epidemics such as HIV, AIDS and malaria, and developing a global partnership for development. It is stressed that the rich and poor nations must unite in the fight to achieve the goals. MDG number 4 (MDG 4) is to reduce the child mortality rate among children under the age of five years old (U5MR), per 1.000 live births, by two-thirds between the years 1990 to 2015. That is equivalent to an annual rate of reduction of 4.3% and means reducing the rate from 13 million to five million deaths per year (Oettgen, 2008, UNICEF 2009a).

2.1 Frequency and distribution

No data shows the discrepancies in human development better than the child mortality rate. Levels and trends in U5MR are especially relevant to understand public health because globally almost 20% of all deaths are among children under the age of five years old (WHO, 2010).

According to UNICEF the earliest available annual numbers of child mortality are from 1960. These numbers show that significant progress has been made in child survival and that there has been a fast drop in the child mortality rate since 1960 (UNICEF 2009a). From 1960 to 2008 the annual number of child

deaths has dropped from roughly 20 million to 8.8 million. Just between the years of 1990 to 2008 the U5MR went from 12.5 million to 8.8 million, which means a decline by 28%, or from 90 deaths per 1.000 live births in 1990 to 65 in 2008. This means that 10.000 fewer children died every day in 2008 than in 1990 (Oettgen, 2008; United Nations, 2010; You, Wardlaw, Salama, and Jones, 2010).

Recent assessment by Rajaratnam et al. (2010) indicates even further progress in the fight against child mortality. According to the assessment the U5MR dropped to 7.7 million deaths in 2010. That number accounts for 3.1 million neonatal deaths (infants in the first 28 days of life), 2.3 million post-neonatal deaths (children from 1 month to 1 year old) and 2.3 million childhood deaths (children between 1-4 years of age). This means that the global decline from 1990 to 2010 was 2.1% per year for neonatal mortality, 2.3% for post neonatal mortality and 2.2% for childhood mortality. The assessment further indicates that across 21 regions of the world, rates of neonatal, post-neonatal, and childhood mortality are declining and in 13 regions of the world, including all regions in Sub-Saharan Africa, there is evidence of accelerating declines from the years 2000 to 2010 compared with 1990 to 2000.

Despite the impressive progress in the past decades, the drop in the child mortality rate has started to progress unevenly between different parts of the world, with the rate of decline generally faster in high-income and middle-income countries than in low-income countries. WHO (2010) states that in many of the poorest countries in the world the U5MR has in fact increased or at most stagnated. Evidently, today high-income countries have far lower levels of child mortality than the low-income countries. According to Rajaratnam et al. (2010), less than 1% of the U5MR occurs in high-income countries but 33% takes place in South Asia and 49.6% in sub-Saharan Africa. Thus, despite the fact that U5MR has decreased in all country-income groups since 1990, the fact is that in low-income countries the median level of child mortality in 2008 was 109 deaths per 1.000 live births, compared with 5 per 1.000 live births in high-income countries, representing a more than 20-fold difference (WHO, 2010).

UNICEF (2008a) states that only half of the world's regions are making progress towards MDG 4. About 18% or 35 countries are making progress but at a rate that is insufficient to meet MDG 4 and what is of most concern are the 27 countries that have showed little progress since 1990 or have an U5MR that is

stagnant or higher than it was in 1990. Countries estimated as being on track to meet MDG 4 have to: reduce the U5MR to less than 40 deaths per 1.000 live births; achieve an average annual reduction rate of 3.9% or more since 1990; or they have to have already met the 2015 goal for reducing child mortality. The countries estimated as unlikely to reach MDG 4, are in the Middle East, North Africa, South Asia and Sub-Saharan Africa.

According to research, 98-99% of U5MR occur in low-income countries and most of those child deaths occur in only 60 low-income countries. About 75% of the world's U5MR in 2008 occurred in only 18 countries and half of the U5MR in only 5 countries. Africa and Asia combined represent 93% of the U5MR and just Sub-Saharan Africa accounted for half of the 8.8 million U5MR in 2008 (UNICEF, 2009a; You et al., 2010).

According to Ahmad, Lopez, and Inoue (2000, p. 1175),

> The slowdown in the rate of decline is of particular concern in Africa and South-East Asia because it is occurring at relatively high levels of mortality, and in countries experiencing severe economic dislocation. As the HIV/AIDS epidemic continues in Africa, particularly southern Africa, and parts of Asia, further reductions in child mortality become increasingly unlikely until substantial progress in controlling the spread of HIV is achieved.

All the 34 countries with a U5MR that exceeds 100 per 1.000 live births are in Sub-Saharan Africa, except Afghanistan. In light of this, it is safe to assume that progress toward MDG 4 is being made in all regions except Sub-Saharan Africa and the highest rate of U5MR continues to occur in the poorest countries of the world. Of the 46 countries in the region there are only three on track to meet MDG 4, and almost half of the countries have registered no change or an increase in child mortality rate since 1990. In this part of the world one in seven children, or 144 per 1.000 live births, died before their fifth birthday in 2008 (Sachs, 2010; UNICEF, 2009a; UNICEF, 2008a). According to You et al. (2010), Sub-Saharan Africa as a whole only managed to reduce child mortality at an average annual rate of 1% from the years 1990-2006 but a double-digit reduction is required in each of the remaining years to meet MDG 4 in the year 2015.

2.2 Causes

Even though we still need more information on the extent and causes of child mortality there are well-known health measures that can save millions of children's lives. According to research, most children under the age of five years old die from preventable causes such as diarrhoea, pneumonia, measles, malaria, HIV and AIDS and complications related to birth (UNICEF, 2008a). However, global coverage for most of the interventions needed is below 50% (Jones et al., 2003).

A recent research by Black et al. (2010) estimates the extent of causes of U5MR. According to this estimate, 8.795 million deaths among children under the age of five years old occurred worldwide in 2008. Infectious diseases caused 68%, or 5.970 million deaths, with the largest percentage due to pneumonia, i.e. 18%, or 1.575 million deaths. Diarrhoea is estimated to have caused 15% of U5MR, or about 1.336 million deaths and malaria 8%, or 732.000 deaths. Forty-one %, or 3.575 million deaths, are estimated to have occurred in neonates and the most important single causes were preterm birth complications with 12%, or 1.033 million deaths, birth asphyxia with 9%, or 814.000 deaths, sepsis with 6%, or 521.000 deaths, and pneumonia with 4%, or 386.000 deaths.

It has been estimated that with simple, well known and widely used measures such as breastfeeding, use of sugar salt solution to treat diarrhoea and appropriate medications and treatments for bacterial infections and malaria, it is possible to prevent 63% of U5MR (Fotso, Ezeh, Madise and Ciera, 2007; Ragnarsson, Leifsdóttir, Kapinga and Gunnlaugsson, 2006). Indeed, Jones, Steketee, Black, Bhutta and Morris (2003) examined existing interventions designed to reduce child mortality from the major causes of U5MR, such as ARI (acute respiratory infections), neonatal disorders, and diarrhoea, for evidence of effect. They found that at least one effective intervention was already available for treating each of the major causes of U5MR and that in some cases there were even more than one available treatment options.

According to WHO (2010), malnutrition is an underlying cause in about one third of all deaths among children under the age of five years old. Black et al. (2008) came to an estimate from health surveys performed between 1995 and 2005. They found that stunted growth, severe wasting, and intrauterine growth restriction, together, were responsible for 2.2 million deaths among children under

the age of five years old. They concluded that maternal and child under-nutrition is the underlying cause of 3.5 million deaths per year, but that constitutes 35% of the disease burden of children under the age of five years old. Thus, the number of global deaths of children under five years old attributed to stunted growth, severe wasting, and intrauterine growth restriction constitutes the largest percentage of any risk factor in that age group.

Black et al. (2008) further state that both maternal and child under-nutrition is highly prevalent in low-income and middle-income countries. The percentage of children under five years of age who are underweight (compared to the WHO Child Growth Standards) declined globally from 25% in 1990 to 18% in 2005, however the progress has been uneven among countries. In some countries, the prevalence of under-nutrition has increased and worldwide stunted growth still affected about 186 million children under five years of age in 2005 (WHO, 2010). Of the 40 countries with a child stunting prevalence of 40% or more, 23 are in Africa, 16 in Asia, and 1 in Latin America. The rising food prices and reduced income due to the current economic crisis has increased the risk of malnutrition, especially among children (WHO, 2010).

Breastfeeding is a very important factor regarding malnutrition. Use of formula increases the risk of infections and deaths of newborns and children. Sub-optimal breastfeeding, especially non-exclusive breastfeeding in the first 6 months of life is estimated to result in 1.4 million deaths and 10% of disease burden in children under the age of five years old (Black et al., 2008; UNICEF, 2009a).

According to Edmond et al. (2006) delayed breastfeeding initiation increases risk of neonatal mortality. “The risk of neonatal death was four times higher in children given milk-based fluids or solids in addition to breast milk.” In addition, “there was a marked dose response of increasing risk of neonatal mortality with increasing delay in initiation of breast feeding from 1 hour to day 7; overall late initiation after day 1 was associated with a 2.4 fold increase in risk” (p. 380). The practice to delay initiation of breastfeeding is common across continents and is based on beliefs that relate to the mother and the child as well as ideas about the quality of the milk (Gunnlaugsson and Einarsdóttir, 1993).

In addition to the 7.7 million children who die every year (Rajaratnam et al., 2010), there are even more children who suffer from infections, other diseases, disabilities and injuries (UNICEF, 2009a).

2.3 Contributory factors

Causal pathways for the high child mortality rate are diverse. However, all are directly or indirectly related to socioeconomic factors and lack of access to primary health care services.

2.3.1 Socio-economic status

Many factors influence the morbidity of children and their health outcomes. According to research, children in poor households have higher rate of child mortality than those coming from more affluent families (UNICEF, 2009a). Insufficient facilities at home, like sanitary conditions, access to electricity, access to clean water and food affect children's health, as well as too many persons living in one home, which contributes to diseases. Furthermore, better education affects the living conditions through higher income and better access to health care (Wang, 2003; WHO, 2010). Alam, Nishtar, Amjad, and Bile (2010) found, for instance, that Pakistan women in the richest quintile had a 35% higher probability of getting prenatal care, 38% higher probability of delivering a child by skilled health professional and 20% higher probability of getting emergency obstetric care when needed.

Poverty is a contributing factor with regard to child mortality because most of the diseases affecting children would not have such a significant impact if poverty were less (WHO, 2010). The MDGs address poverty and MDG 1 is to eradicate extreme poverty and hunger with the goal of cutting in half the number of people whose income is less than 1$ a day, between 1990 and 2015. Therefore, to address the issues of child survival and make progress that has a lasting impact, it is necessary to address the economic inequalities in the world (Oettgen, 2008; UNICEF, 2009a).

2.3.2 Health care access

Health care service is one of crucial factors when it comes to child survival and mortality. Accessible primary health care service is essential in the fight against child mortality (UNICEF, 2009a). First of all, due to possible lack of health education, and also general education, parents may not recognize how sick their child is and thus they might not take the child to a health care facility to get the appropriate treatment. Secondly, even if parents recognize that their child is sick and needs treatment, they might lack the money to pay for it, the treatment or

service the child needs might not be available where they live and they might have to go a long way to receive it, which in turn can cost even more money.

Research shows that access to health care, vaccinations in the first year and costs of health care services, have a significant impact on child mortality (Wang, 2003). Data from WHO (2010) also shows that child mortality rate is higher in rural areas, where health service is less available, than in urban areas, and also in low income countries compared to high income countries. Consequently, there are differences between rural and urban areas, as well as between high-income and low-income countries in the coverage of key health services. For example, 80% of urban births take place with the assistance of skilled health personnel compared with only 35% of births in rural areas. Coverage of skilled attendant at birth in rural areas can range from as low as 3% to as high as 100%. According to this, health interventions that have been carried out in the last decade have not been reaching all people who need them. Effective interventions are useless if they do not reach the mothers and children who need them. Good and accessible primary health care is essential for the reduction of child mortality (United Nations, 2008; WHO, 2010).

2.3.3 Health care workers

To provide good primary health care service it is necessary to have educated and skilled health care workers. According to data from WHO (2010), there is a vast difference in the number of health care workers in different regions of the world and between low-income countries and high-income countries. Between the years of 2000-2009, physicians per 10.000 individuals ranged globally from less than 0.5 to 64, per country. Furthermore, between the years of 2000-2009, the average in Africa was two physicians per 10.000 individuals, which was the lowest score, but during the same time period there were 33 physicians per 10.000 individuals in Europe, which was the highest score. The global average score was 14 physicians per 10.000 people. Nursing and midwifery personnel per 10.000 individuals ranged from less than 0.5 to 163, per country, in 2000-2009. The lowest average was in Africa, with 11 per 10.000 individuals, and highest in Europe, with 68 per 10.000 individuals. The global score was 28 nurses and midwives per 10.000 individuals. There was also a clear difference between low-income and high-income countries in 2000-2009, with a rate of 4 versus 28

physicians per 10.000 individuals and 10 versus 81 nurses and midwives per 10.000 individuals.

The quality of health education and skills may also vary between countries depending on the quality and funding in the health and educational sector. The health care workers might lack training or the right medication or equipment to give a child the treatment and care it needs. They might also not recognize that the child might need treatment for more than one illness or disease. The wrong doze of medicine is sometimes administered or given in a dangerous combination. In addition, in low-income countries laboratory tests and sophisticated diagnosis is more difficult due to lack of resources and funding (UNICEF, 2009a; WHO, 1997).

Davey, Fekade and Parry (2006) state that if any progress towards the MDGs is to be made in Sub-Saharan Africa, where it is most needed, it is essential that health care professionals are retained in government service. Not only have many health care workers moved to richer countries, but many, especially the highly skilled ones, have been lost to high paying agencies within the low-income countries. Due to lack of educated health care workers the health care systems are "distorted and weakened; neither a sustainable infrastructure nor a critical mass of skills is built up, morale ebbs and the vicious cycle of professional dismay is completed" (Davey et al., 2006, p. 629). They further state that the lack of skilled health care workers is mostly felt in the rural communities away from capital cities, therefore "the rural poor suffer first, the very people who ought to benefit from policies derived to meet the MDGs" (Davey et al., 2006, p. 629).

There is growing need to strengthen health care systems in developing countries to help meet the MDGs. According to WHO (2006) it is widely accepted that the key constraint to achieving the MDGs is the absence of properly trained and motivated health care personnel. The report reveals an estimated shortage of almost 4.3 million doctors, midwives, nurses and support workers worldwide. The shortage is most severe in the poorest countries, especially in Sub-Saharan Africa, where health workers are most needed. The report puts forward ambitious proposals to tackle the problem over the next ten years with focus on all stages of the health workers' career lifespan, from entry to health training, to job recruitment through to retirement.

In recent years growing number of studies have been made which explore the links between incentives, motivation, and retention of health workers in developing countries. “Many studies have identified seven major themes regarding motivational factors, such as financial, career development, continuing education, hospital infrastructure, resource availability, hospital management, and personal recognition” (Willis-Shattuck et al., 2008, p. 1).

2.3.4 Health care expenditure and financing

Timely access to primary health care is important and promotion, prevention, treatment and rehabilitation are essential and should be provided by skilled health care staff. However, good primary health care cannot be achieved without a well-functioning health care system and to achieve that funding is required (WHO, 2010).

Estimates indicate a clear correlation between per capita total health expenditure and health outcomes. As a general rule, life expectancy rises with increasing per capita total health expenditure. According to WHO (2010), per capita total health expenditure in 2007 ranged from $17 to $7285. The global rate in the same year was $863. It was lowest in South East Asia, with $104, $137 in Africa, highest in the region of the Americas, with $3046, and $1875 in Europe. There was also a vast difference between low-income countries, with $67, and high-income countries, with $4145 (WHO, 2010).

A well-functioning health financing system is essential. A functioning health financing system both determines whether people can afford the use of the health care service when they need it and whether the service exists at all (Ridde and Morestin, 2011). One way to finance health care, that has been popular in the last decades, in the low-income countries, is user-fees. In the 1980s, after two decades of free but poor quality health care services, nearly all countries in Africa introduced user-fees for public health care service. This decision, taken by the governments, with the support of the World Bank, was controversial and contested by many. Since user-fees for public health care service were put in place, many studies have confirmed the fears they raised, i.e. that user-fees reduce access to services, especially among the poor, resulting in reduced service utilization. According to research, now only 5-10% of people are covered for

health care in Sub-Saharan Africa and Southern Asia, while in middle-income countries, coverage rates range from 20-60% (Evans and Etienne, 2010).

"Many low- and middle-income countries continue to search for better ways of financing their health care systems. Common to many of these countries are problems of inadequate resource mobilisation, as well as inefficient and inequitable use of existing resources" (Biai, 2010, p. 8). Thus, user-fees remain a debatable issue among low- and middle-income countries because of its complexity when it comes to implementation in different contexts (Vian, 2008). According to Akashi, Yamada, Huot, Kanal, and Sugimoto (2004), prior to the adoption of user-fees, there had been unofficial payment from patients in a Cambodian public hospital as well as in some other hospitals in low-income countries. A study in Cambodia shows that user-fee implementation leads to improvement in staff services and operational quality, including access to drugs and medical supplies and the implementation also increases the attractiveness of services at the hospital (Akashi et al., 2004). However, other studies have indicated the negative effect of user charges, especially on equity (Xu et al., 2003). If user-fees are abolished it requires sufficient increase in funding, otherwise repeated problems with drug stocks could have negative effect on utilization.

The member states of WHO recognized the crucial importance of a functioning financing mechanism and in the year 2005 they committed themselves to develop their health care financing systems so that all people would have access to health care services. Accordingly they defined the goal of universal coverage, or universal health coverage. In order to achieve this goal, governments need to address three basic questions: How to finance such a system, how to protect people from financial consequences and how to encourage optimum use of available resources. They also have to ensure coverage is equitable and establish reliable means to monitor and evaluate progress (Evans and Etienne, 2010). Abolishment of user-fees is currently the proposed solution and international aid agencies are increasingly supporting countries that abolish such fees. In Africa, where most of the poorest countries are and where the highest child mortality rates are, user-fees are still common practice but they constitute a financial barrier to access health care services and in that way systematically exclude the poor from

health care (James, Morris, Keith and Taylor, 2005; Ridde, and Morestin, 2011; Yates, 2009).

Korkor Ansah et al. (2009) state that delays in accessing treatment for malaria and other diseases can lead to a disease progression, and user-fees are a known barrier. Research by James et al. (2005) supports this and concludes that the impact of removing user fees on child mortality could prevent approximately 233.000 deaths annually among children under the age of five years old, in 20 African countries. Furthermore, research in Africa indicates that user-fees have rarely generated large amounts of revenue. Ridde and Morestin (2011) conducted a study analysis on the subject and found that abolition of user fees did have generally positive effects on the utilization of services, but at the same time it highlights the importance of implementation processes and current lack of knowledge on the matter. African decision-makers want to know if eliminating payment for service is effective and how it can be implemented. James et al. (2005) conclude that, giving the relatively low cost of abolition, user fees should be replaced by alternative financing and that should be an affective first step to improve access to primary health care. Free health care services influences the seeking of treatment, and it is therefore assumed to lead to improved health outcomes. Thus, James et al. argue, that governments need to introduce free health care to improve health outcomes.

2.3.5 Transport

Another influential factor, that perhaps has not received appropriate attention, with regard to the MDGs, is transport. In the report *Transport and the Millennium Development Goals* it is stated that an efficient transport system and transport service is critical if the MDGs are to be fulfilled. According to the report, transport is nowhere more important than in Africa, because "the large size of the continent and the wide spread of population inherently raise the significance of transport in almost all development decisions" (African Union and UN Economic Commission for Africa, 2005, p. 1).

The role of transport is important to ensure adequate and reliable availability of food and other supplies, as well as medical supplies and personnel (Africa Union and UN Economic Commission for Africa, 2005). The more challenging role of transport is however to bring people to health care facilities. In

low-income countries people in rural areas might not be able to afford the transport needed to the nearest health service available. When a child is seriously ill, a few hours delay in treatment can make a difference between life and death. Although more often, transport is needed so people can receive treatment, medication and vaccinations. Therefore, transport infrastructure and services have three important effects: to ensure use of health care service, it affects the catchment areas that can be served by health facilities, and therefore the size and cost of the network required, and it affects the extent to which people can choose among alternative facilities based on the expected quality of services. Poorer households are often further away from medical facilities, especially in rural areas of Sub-Saharan Africa, and they typically face long journeys and high costs to access health care.

Likewise, Gunnlaugsson and Einarsdóttir (2009) found that transport was one of major themes that emerged in their study on health care services in Malawi. They claim that "internationally, transport is recognized as crucial to attain the MDGs and to reach the rural poor with, e.g., drugs, vaccines, and basic health services" (Gunnlaugsson and Einarsdóttir, 2009, p. 30). They state that there is also a need for speedy response for effective interventions in medical emergencies, for instance in cases of major obstetric problems or cerebral malaria, which usually require urgent hospital treatment.

2.3.6 *Maternal mortality*

The high maternal mortality is an important factor when it comes to U5MR because it influences child survival and mortality (UNICEF, 2009a). Every year more than half a million mothers die due to causes connected to pregnancy and birth, which leaves a lot of children without mothers. MDG 5 is to improve maternal health and reduce the maternal mortality rate by three quarters, between 1990 and 2015. The risk of maternal death is highest in Africa, where there were 900 maternal deaths per 100.000 live births, compared with only 27 per 100.000 live births in the Europe in 2008. According to WHO, no region achieved the 5.5% annual decline in maternal mortality necessary to attain MDG 5 in time (WHO, 2010).

Moreover, over the last decades, it has become an accepted wisdom that improving the status of women is one of the most critical issues in international development. Research shows that when women are educated and earn and control income, it has a number of positive affects: “infant mortality declines, child health and nutrition improve, agricultural productivity rises, population growth slows, economies expand, and cycles of poverty are broken” (Coleman, 2010, p. 13). However, progress is slow. In the Middle East, South Asia, and especially in Sub-Saharan Africa, large gender gaps persist in access to education, health care, technology, and income. Lack of basic rights and violence against women keeps them from being active members of society. “The majority of global population growth in the coming decades will occur in those countries where gender disparities are the greatest and where conservative religious traditions and tribal customs work against women's rights” (Coleman, 2010, p. 13).

An analysis of data from 152 countries noted that gross national income per head, female illiteracy, and income equality predicted 92% of the variance in infant mortality. In low-income countries, where most child deaths occur, female illiteracy was more important than gross national income per head, and both were more important than public expenditure on health (Schell, Reilly, Rosling, Peterson and Ekström, 2007). Rutherford, Dockerty, Jasseh et al. (2009) found that community and social networks, personal support for caregivers in the home, and financial autonomy were more important determinants of child mortality than access to health care services, in the Gambia.

2.3.7 What rights come first?

The world leaders agreed in 1990 that children should have a special convention just for them, because children (people under age of 18 years) often need special care and protection that adults do not need (UNICEF, n.d.). The leaders also wanted to make sure that the world recognized that children had human rights. The *Convention on the Rights of the Child* is the first legally binding international instrument to incorporate the full range of human rights, e.g. civil, cultural, economic, political and social rights. There are four core principles of the Convention: devotion to the best interests of the child, the right to life, survival and development and respect for the views of the child. “Every right spelled out in

the Convention is inherent to the human dignity and harmonious development of every child. The Convention protects children's rights by setting standards in health care; education; and legal, civil and social services" (UNICEF, n.d.). By agreeing to undertake the obligations of the Convention, national governments have committed themselves to protecting and ensuring children's rights and they have agreed to hold themselves accountable for the commitment before the international community.

There have been conflicting ideologies regarding measures that should be taken, or not taken, to reduce child mortality. Einarsdóttir (2006) states that some scholars have warned against attempts to save the lives of poor children in low-income countries because such efforts, in cases of success, would ultimately increase human misery. Maurice King (1990) stated, for instance, that public measures need to be understood in terms of their demographic and ecological implications. He believes that in ecologically unsustainable communities "such desustaining measures as oral rehydration should not be introduced as a public health measure, since it increases the man-years of human misery, ultimately from starvation" (King, 1990, p. 664).

Horton (2004) argues that UNICEFs emphasis in working towards MDG 4 has not been appropriate with regard to the main issues and calls for a strategic change. He argues that in recent years the focus has been on education of girls, early childhood development, immunizations, HIV/AIDS, and protecting children from violence, abuse, exploitation and discrimination. These factors are all important in lowering the child mortality rate, however, he states that UNICEF has failed to address the essential health needs of children, which is the central mission.

2.4 Development aid

2.4.1 History

The beginning of development aid (also called foreign aid) is often traced back to the end of World War II and the beginning of the Cold War, in 1949, when the president of the United States, Truman, launched the Marshall Plan. The Marshall Plan was a plan to support the economy of the so-called underdeveloped countries. At that time countries in the south were getting their independence and plans to oversee and support development and development aid institutions were

launched. Among the most important institutions were The World Bank, IMF (International Monetary Fund), the United Nations (UN) and the many sub organizations of the UN. During that time many of the development agencies of the high-income countries were also established (Riddell, 2007).

Throughout the years the emphasis has changed dramatically within the field of development aid. In the beginning, in 1950-1960, the emphasis was on big projects in the field of industry, with extra emphasis on transport and urbanization. At this time the belief in modernization was overpowering and the main goal was to increase growth (Einarsdóttir and Gunnlaugsson, 2005b). Projects and mass campaigns to eliminate specific diseases were launched and malnutrition of children was considered an epidemic. There were expectations that new governments of the so-called developing countries would use the aid in an effective way and countries receiving aid were chosen, for example, based on their status as a former colony and their attitude towards the Cold War (Einarsdóttir and Gunnlaugsson, 2005b; Oettgen, 2008).

From 1960-1970 the emphasis on growth was still the principal goal of foreign aid, but increased focus was put on business and increased employment. Agriculture was getting more attention and also export and the processing of national products. At that time the UN started discussing the social- and economic status of children in low-income countries as an influential factor regarding their health (Einarsdóttir and Gunnlaugsson, 2005b). In addition, in 1970 The World Bank lead a change of policy that was characterized by an effort to a more equal distribution of income and an emphasis on primary needs. At that time the opinion that had been dominant for the last decades, which was that increased growth was enough to reduce poverty, was increasingly questioned. Integrated rural development projects were on the rise and more emphasis was put on appropriate technology. At the same time debts among the low-income countries were growing.

In the 1970s the mass campaigns to control specific diseases, mostly in form of vaccinations, were still a part of the development aid practice and now they were starting to show success. The most successful one eradicated smallpox in 1977. In 1974 the Expanded Program on Immunization (EPI) was established. In that year only 5% of the world's children were immunized but with efforts like EPI rates are now about 75% (Oettgen, 2008). In 1978 the Declaration of Alma

Ata was announced at the International Conference on Primary Health Care in September. It was the first international declaration underlining the importance of primary health care. The goal was: "Health for All". The declaration stated the urgent need for governments, health and development workers, and the world community to protect and promote health for all people. Promoting and protecting health was thought to be essential to human welfare and sustained economic and social development. Better health was believed to be a contributing factor both to a better quality of life and also to global peace and security (Evans and Etienne, 2010; Loaiza, Wardlaw, and Salama, 2008).

After the Alma Ata declaration there was a shift in priorities and primary service in communities and participation of the community was getting more attention. Under the influence of Alma Ata, UNICEF started, in 1982, an international campaign in the form of interventions to positively impact the main causes of child mortality. It was called GOBI, which stands for growth, oral rehydration, breastfeeding and immunizations (Einarsdóttir and Gunnlaugsson; 2005b; Loaiza, et al., 2008). The push for universal immunizations in the late 1980s became the major focus of child survival, and global coverage of three vaccination doses of diphtheria, pertussis and tetanus (DTP3) rose from 20% to 75% in 10 years (Biai, 2010). At this time, as a result of the Alma Ata declaration, primary health care in rural areas was on the rise and the child mortality rate was dropping (Oettgen, 2008).

The 1980s were characterized by the structural adjustment programmes of the World Bank and the Washington consensus (Einarsdóttir and Gunnlaugsson, 2005b). The aim was to give conditioned aid to low-income countries, thereby helping them to pay off their loans. The World Bank was demanding cuts in public services, user fees for health services and education, cuts in the number of governmental employees and abolition of import restrictions and protection tolls, as well as democratic elections. The negative effect of this policy on conditions and stability of government was soon realized and UNICEF insisted on creating a new policy with emphasis on social- and health care.

In the 1990s, development aid was increasingly criticized. On one hand, there were those who believed that the western way of life was not desirable and in fact just a continuation of the colonial past (Einarsdóttir and Gunnlaugsson, 2005b). The inadequacy of aid was reflected by the fact that inequality was

increasing and the gap between the rich and poor was getting wider. On the other hand, there were those who believed that free market was the only way to create better life for all. The success of certain countries in Asia was taken as proof that free market would lead to prospect, increase growth and in that way have positive affect on human development (Peet and Hartwick, 2009).

The so-called aid fatigue spread within the field of development aid, in part because of the view that countries would become dependant on aid and also because some countries were thought not to be able to put the funds they received to good use. Thus, donors put in place guidelines and conditions that countries had to follow to receive aid. Good governance became the main requirement for allocation of aid, which resulted in increased aid flows to middle-income countries and cuts of aid to the low-income countries, mostly the countries in Sub-Saharan Africa (Einarsdóttir, 2007; Einarsdóttir and Gunnlaugsson, 2005b).

Despite the pessimistic atmosphere of the 1990s, the decade ended with the Millennium Development Goals (MDGs), which are "the world´s biggest promise – a global agreement to reduce poverty and human deprivation at historically unprecedented rates through collaborative multilateral action" (Hulme, 2009, p. 2). According to Hulme, the MDGs

> [w]ere the outcome of a fragmented conversation between critics of neo-liberalism, loosely grouped around the idea of "human development", and non-fundamentalist neo-liberals, moving toward a post-Washington Consensus. The MDGs emerged at a time when (i) the previously dominant model for world development, neo-liberal capitalism, was being heavily questioned but there was no clearly articulated alternative, and (ii) world leaders and multilateral institutions were coming under pressure to generate a vision of "how" the world would be different and better in the new millennium (2009, p. 1).

Other important milestones include the International Conference in Monterrey, Mexico, in 2002, regarding funding for development activities. It was agreed that development cooperation should be one of the foundations of international cooperation in the fight against poverty. In the Paris Declaration, of

2005, the focus was on successful strategies that should be put in place through coordination, efficiency and mutual responsibility of those involved. In 2008, in Accra, the Paris Declaration was discussed and it was agreed to continue working on the previous goals and in addition make development aid more transparent, reliable and performance based (Pronk et al., 2004).

Along with, and as a part of, international commitments it has been recommended that the countries with high income increase their contributions to official development aid from 0.25% of GNI (Gross National Income) in 2003 to 0.44% in 2006 and 0.54% in 2015. This would double the funding for development aid. A call for increased development assistance, debt suspension and creating new ways of funding development aid has also increased (Addison, Mavrotas and McGillivray, 2005; Riddell, 2007). In recent years the World Bank and other international and bilateral organizations are focusing more on primary health care. It is evident that now there is increased optimism and believe in development aid, as evidenced by the MDGs. Development aid increases growth and official finance that benefits the poor, through better primary health care and education (Addison et al., 2005).

2.4.2 Allocation of aid

Most research suggests that contributions to development aid have increased since the adoption of the MDGs through governments and new initiatives, in particular within health. These new initiatives have grown enormously, as well as their importance and influence (Addison et al., 2005; Sachs, 2010).

However, despite the fact that levels of health aid are rising, there are two things that remain unclear. Firstly, whether the aid funds are being distributed evenly to countries in need and, secondly, if the countries are receiving aid in accordance to their health priorities and health system development needs. Piva and Dodd (2009) state that there have been concerns that spending priorities are increasingly determined at global and regional levels rather than by the recipient country. There have been concerns as well about the efficiency of aid delivery and that has prompted the development community to promote the use of more efficient aid instruments.

According to Piva and Dodd (2009), health ODA (official development assistance) is increasing and the LDCs (least developed countries) are the focus of major development efforts and the direct recipients of one third of all health ODA. Therefore, countries that need it the most seem to be receiving the most health aid. Nonetheless, there are huge geographical variations in health ODA per capita in LDCs. For example, Zambia receives almost $20 per capita a year compared to $1,59 per capita that Chad receives. This disparity could nevertheless be explained by high transaction costs, divergence from national policies and lack of coherence between development partners (Piva and Dodd, 2009; Sachs, 2010). However, countries with comparable levels of poverty and health needs receive not only remarkably different levels of aid, but funding is also very unevenly distributed depending on types of diseases. For example, funding for MDG 6, to combat HIV/AIDS, malaria and other diseases, accounts for much of the recent increase in health ODA, while many other health priorities remain insufficiently funded. Thus, although political momentum towards aid effectiveness is increasing at global level, some real aid management challenges remain at country level (Piva and Dodd, 2009; Sachs, 2010).

The great variation in allocation of aid to various LDCs can be traced to so-called partnership policy that was established as a response to the widespread aid fatigue of the 1990s. Partnership became suddenly a popular concept that was supposed to change the relations between donor and recipient countries (Einarsdóttir, 2007). The concept of partnership was supposed to make aid more equal and effective. The guidelines created in accordance with the partnership concept, classified countries that receive foreign aid into categories, according to their policy and government. This controversial classification resulted in various classifications of countries such as failed states, poor performers or difficult partnership countries. Now, countries that receive little foreign aid are even called aid orphans in contrast to so-called aid darlings (Levin and Dollar, 2005).

According to Levin and Dollar (2005) difficult partnership countries receive about 40% less aid than predicted by their policy and institutional strength in pooled-sectional regressions, mainly due to disproportionately low aid flows from bilateral donors. However there is a difference within the groups. One sub-group, designed as aid darlings, received more aid than their levels of poverty and quality of policy would predict, while aid orphans received less. Furthermore, aid

to difficult partnership countries is characterized by almost double volatility to aid compared to other low-income countries.

According to the OECD report *Ensuring Fragile States Are Not Left Behind* (2007), of all the children in the world who die before the age of five years old, half are born in a country labeled as a fragile state. The same report states that of all the women whose deaths are related to pregnancy or childbirth one in three dies in a fragile state. The regional and international "spill-over" effects from these countries, e.g. violent conflict, instability, organized crime, migration, human trafficking, resonate widely beyond the development community. Levin and Dollar (2005) argue that aid to fragile states could be increased without risking reduction in performance.

2.5 Assessment

In order to provide development aid it is essential to obtain data and information about the issue at hand. Accurate and timely estimates of child survival and mortality are needed to help countries set priorities, to design programmes and to monitor progress. Such estimates are challenging to make because data are scarce in many developing countries. Before the mid-1990s there were major holes in accessible data on the condition of children and mothers. For instance, only 38 developing countries had data on whether malnutrition among children was increasing or decreasing, which is the basic factor for evaluating children's health and welfare (Loaiza et al., 2008; UNICEF, 2008b).

In the year 1995 UNICEF developed a methodological survey called MICS (Multiple Indicator Cluster Survey) to assist countries to obtain important data and fill holes in their data on the health and condition of children (UNICEF, 2008b). Since 1995 nearly 200 MICS have been conducted in about 100 countries. The past ten years have provided important knowledge through these surveys, other projects and studies. Reports are regularly published to evaluate the current situation, including children's health. Institutions like UNICEF and WHO publish reports on their policies. These reports are based on experience, surveys, statistical data and research. In addition, assessments are made of the performance of the interventions designed to combat child mortality based on extensive work within UNICEF and their cooperation parties, such as the World Health Organization

(WHO), and others who monitor the situation of children and women throughout the world (UNICEF, 2008b).

In the year 2004, experts from UNICEF, WHO, the World Bank, the UN Population Division (UNPD) and members from the academic community, formed the Inter-Agency Group for Child Mortality Estimation (IGME). IGME produces global estimates on child mortality and evaluates forms of interventions. Each year, UNICEF, on the basis of work of the IGME, publishes the latest data on global U5MR as they become available. In the annual *The State of the World's Children* report, detailed national estimates of mortality, trend analysis and information on policy are published. "Further analysis along with other policy and programme data are also presented every 2-3 years as the Countdown to 2015, involving UNICEF, WHO, UN Population Fund (UNFPA) and a range of civil society, academic, and donor partners" (Loaiza et al., 2008, p. 874).

2.6 Approaches

The rate of child mortality has changed dramatically over the past years and research and data analysis has produced valuable information on the subject. The approaches toward child mortality reduction have in correlation evolved over time. Organizations and other parties work together to fight the U5MR and reach MDG 4. In addition, many campaigns and projects have been put in place (You et al., 2010).

An example of a project developed to fight child mortality is the IMCI (Integrated Management of Childhood Illness). IMCI is a programme developed by WHO and UNICEF in the mid-1990s to improve the treatment of the diseases that are the most common causes of death among children under the age of five years old, e.g. malaria, acute respiratory infections, diarrhoea, measles and malnutrition (Duke, 2009). IMCI is designed for use in medical care of children in countries where the U5MR is more than 40 per 1.000 live births and for many low-income countries IMCI represented the first integrated and standardized case-management strategy that could be taught to nurses and community health workers (CHWs) (Duke, 2009; Ragnarsson et al., 2006). IMCI has largely been developed from controlled trials and IMCI procedures were set up in simple and clear flowcharts where health workers are lead through a few steps for evaluation and treatment of a sick child. The children do not get a diagnosis but are classified

on the basis of their symptoms and get appropriate treatment based on them. Parents also receive advice regarding treatment, health promotion, and are told under what circumstances they should bring the child back. Further studies are needed on the method but preliminary results indicate a 13% reduction in the incidence of child mortality in two districts in Malawi, compared with two districts that did not use the method (Ragnarsson et al., 2006).

Since its introduction, multi-country evaluations of IMCI in Uganda, Tanzania, Bangladesh, Brazil, and Peru, have showed benefits in health service quality and reductions in mortality and health costs (Bryce et al., 2005b). Based on this evidence, over 113 countries have since introduced IMCI to their health systems with varying levels of comprehensiveness (El Arifeen et al, 2004). Nevertheless, implementation of IMCI referral guidelines remains an important challenge in some countries. Walter et al. (2009) reviewed 502 cases at 62 facilities in Tanzania and found that treatment with anti malarial drugs and antibiotics was consistent with the diagnosis given by health workers. “However, of 240 children classified as having "very severe febrile disease", none received all IMCI-recommended therapies, and only 25% of severely ill children were referred” (p. 99). They concluded that the health workers rarely adhered to IMCI treatment and referral guidelines for children with severe illness. “They administered therapy based on narrow diagnoses rather than IMCI classifications, disagreed with referral guidelines and often considered referral unnecessary” (p. 99). To improve implementation of IMCI, attention should focus on the reasons for health worker non-adherence (Walter et al., 2009). El Arifeen et al. (2009) point out that there is need for a better understanding and improvement in access to trained, skilled nurses, community health workers, midwives, and doctors if IMCI is to achieve the greatest possible effect on child mortality. According to El Arifeen et al. (2009) research in Bangladesh, about 80% of child deaths occur at home, only 37% (IMCI) and 18% (comparison) of children accessed care in government health facilities and CHWs saw only 1% of children who died in the IMCI area.

A very successful project similar to IMCI was put together in Guatemala where health workers were trained in diagnosing and treating the most common illnesses of children with interventions available in the country (Bryce et al., 2003). More than 95% of patients got the right diagnosis and treatment. The cost

was about $5 per individual per year, which shows that these projects do not have to cost much and they do work. Mortality rate of newborns dropped from 139 to 55 for every 1.000 live births and from 28 to 6 for every 1.000 live births among children age 1-4, in 3 years. At the same time there was little change in the child mortality rate for Guatemala in general.

The results presented above were achieved in an environment where the child mortality rate is high and the health care system was struggling to provide basic health care, not unlike the environment where the U5MR is highest today (Bryce et al., 2003). One of the reasons why the project in Guatemala was so successful was that it was adjusted to circumstances and epidemiological and social conditions. It shows the importance of taking into account the situation in each country because different problems call for different solutions. Projects against child mortality should use affective, successful and fair methods to reach those that need the help. It is very important to build on effective methods we have today but also take into consideration local factors and culture.

"The broader determinants of child survival are crucial to understanding the potential effect of any set of interventions and the obstacles to reducing child mortality" (Duke, 2009, p. 361). A study in Ethiopia, teaching mothers to provide home treatment with chloroquine for sick children under five years of age, reduced the U5MR by 40% in the intervention localities (Kidane and Morrow, 2000). However, a study on self-treatment of malaria in rural Kenya showed that even attendance at a health centre did not ensure adequate treatment because of the common practice of sharing medication among family members, but only 12% received a curative dose (Ruebush et al., 1995).

UNICEF has also implemented the *Accelerated Child Survival and Development* (ACSD) programme in 11 West African countries between 2001 and 2005, with the goal of reducing child mortality by at least 25% by the end of 2006. UNICEF reported that in 2005 the ACSD programme had reduced U5MR by 20% in programme areas by increasing coverage for highly effective interventions, on the basis of modeling and estimation (Bryce at al., 2010).

Research shows that the supply of primary health care is effective in the fight against child mortality (Bhutta et al., 2008). A case-study on health and mortality of mothers, infants and children in Pakistan and Uganda showed that providing good primary health care and interventions that are affective against

common problems related deaths of mothers, infants and children, can effectively reduce mortality. In these two countries the study showed that maternal mortality rate could be reduced by 20-30%, neonatal deaths by 20-21% and among children from one month to five years old by 29-40%, just by supplying primary health care.

Another example of a successful campaign is the *Nothing but Nets* campaign which is a cooperation of many organizations that collected about 18 million dollars to buy and distribute 730.000 insecticide treated bed nets in Africa (United Nations, 2008). As a result there has for example been an increase in the use of bed nets in Kenya, which has lead to 44% less deaths among children due to malaria, compared to children that did not use nets. A campaign against measles has also been very successful because since the year 2001 deaths due to measles worldwide have dropped by 68% but that succeeded the goal of the campaign of 50%.

More projects have given good results. There was for example, a project established in Brazil, Egypt, the Philippines and Mexico where oral medication was used to treat diarrhoea but the project has lowered the child mortality rate in all the countries (Bryce et al., 2003). Another successful project is a vaccination project in Latin America where polio was eradicated and measles are now very rare. There was also an effective project in Tanzania where social marketing was used to increase the use of insecticide treated bed nets in two states. They worked with local shop owners and the health care system and the result was that the number of children sleeping under bed nets increased from 10% to 50% in three years. This lead to a 27% decrease in the child mortality rate, among children that used the nets.

With the aid of campaigns and projects by UNICEF, WHO and others, more children get vaccinations and today it is estimated that ¾ of the world's children get vaccinations (UNDP, 2005; United Nations, 2008). Vaccinations can prevent 2.5 million deaths every year and prevent countless illnesses and diseases. Organizations and institutions have recommended that coordinated actions regarding vaccinations should be followed to reach all children.

According to WHO (2010), there have been increases in the coverage of relatively new child health interventions such as the use of insecticide-treated nets to prevent malaria, efforts to prevent the mother-to-child transmission of HIV and

vaccination against hepatitis B and Haemophilus influenza type B pneumonia. There is also a gradual progress recorded for several interventions. One could name for instance micronutrient supplementation and that the global coverage of measles immunization increased from 73% to 83% between 1990 and 2008. Nonetheless, despite these gains, the coverage of other critical interventions, such as oral rehydration therapy (ORT) for diarrhoea and treatment with antibiotics for acute respiratory infections (ARIs), remains inadequate. As a result, diarrhoea and pneumonia contribute almost three million of the U5MR each year, especially in low-income countries (WHO, 2010; You et al., 2010).

According to WHO and UNICEF the effort to fight child mortality is focused around several priorities (Oettgen, 2008; UNICEF, 2008a). The main focus is on the 60 countries where child mortality is the highest, with more than 50.000 child deaths per year or an U5MR of more than 90 per every 1.000 live births. In those countries package interventions for mothers and children are put in place so that they receive a continuum of care from the prenatal period and all the way through childhood. Furthermore, they aim to strengthen community partnerships and health systems that can provide preventive care. The current effort to decrease child mortality uses a combination of targeted single interventions, such as vaccines, and grouped interventions and programs, such as IMCI.

2.7 Can we reach MDG 4?

Most cases of U5MR are in fact preventable which indicates that it is possible to reach MDG 4 by using a few, well-known and effective interventions and making sure they reach people who need them. Overall, impressive progress has been made in improving the survival rates and health of children since 1990, even in some of the poorest countries. Nonetheless, achieving MDG 4 will require additional effort because the rate of decline in U5MR is still insufficient to obtain the MDG goal by 2015, particularly in Sub-Saharan Africa and South Asia (UNICEF, 2009a; UNICEF, 2008a).

Bryce et al. (2006) highlight the need for a tremendous intensification of efforts, especially in certain regions, to move closer to MDG 4. Only seven of the 60 countries with the highest U5MR were on track to achieve MDG 4 in 2015. In fact, mortality rates increased in 14 countries. Concerted and accelerated efforts

will therefore be needed to achieve the MDG, especially in countries facing economic crises or conflicts. According to You et al. (2010), the MDGs state that the decrease should be little over 4% a year but if the situation progresses as it has, the child mortality rate among children under the age of 5 will decrease less than 15% before 2015, but according to the MDGs the reduction should be 66.7%. WHO (2010) states that in order to achieve MDG 4 low-income countries would need to increase their annual average rate of reduction from 1.9% to 10.9%.

Therefore, much remains to be done and there is a need for more effort to speed the progress, which will require a combination of different strategies (WHO and UNICEF, 2010). Effective solutions exist, that could contribute to fast progress, but effort and commitment is necessary to make it possible to achieve and to reach the MDGs regarding health of mothers and children. A policy that is effective and economically efficient is needed, a policy that focuses on prevention, because it saves costs of treatment. Integrated interventions have to be used to increase the wellbeing and health of children and increase access to free health care. Health care that is not just provided in institutions but also in the communities is needed. In that way it is possible to meet the people in the communities that need the service, lower the cost and children will still get the best possibility of health (Bryce et al. 2005a; UNICEF, 2009a).

According to You et al. (2010), accelerated progress can be achieved, even in the poorest environments, through: integrated, evidence-based and community-based programmes that focus on addressing the major causes of death; including pneumonia, diarrhoea, newborn disorders, malaria, HIV and malnutrition; reaching the unreached with basic package of interventions at large scale and achieving coverage with equity and using data for action and advocacy.

An analysis by Powell-Jackson, Borghi, Mueller, Patouillard and Mills (2006) shows that preventative and treatment measures exist that could help to reach the MDG to reduce child mortality by ¾ by 2015, but in order to reach that goal funds are needed. As of 2004 the level of official development aid to maternal, newborn and child health was only adequate to fund a small proportion of the resources needed to reach the MDGs, or only about $1,3 billion of the $ 11 billion needed in the 60 high-priority countries. Rapid increase in funding is therefore needed to make progress.

Horton (2006) states that more resources are needed to achieve MDG 4 and that it is "important to focus on how governments and their external partners can increase funding for child health" (p. 1041). He further concludes that:

> [g]overnments can generate additional domestic resources through economic growth, debt relief, and the re-allocation of existing government funds. New financing mechanisms such as the International Finance Facility and the airline tax proposal have the potential to provide additional funds quickly. All these revenues must be pursued aggressively (Horton, 2006, p. 1041).

According to Sachs (2010), it is estimated that the financial gap needed to implement a basic primary health care system, in a low-income setting, is around $40 per person per year needing to be filled by external donors. With about one billion people in low-income countries with such financing gap, the global financing gap for primary health care is roughly $40 billion per year. That equals around 0.1% of the combined national incomes of the USA, Canada, the European Union and Japan, the group of 22 traditional donors known as the Development Assistance Committee (DAC). However, these donors have for a while promised 0.7% of GDP (gross domestic product) in official development aid, although actual aid delivery is about half of that. Therefore, Sachs (2010) argues, that if the donors would keep their commitment by mustering the political will and work with governments of low-income countries it should be possible to build an effective delivery system for primary health care in low-income countries.

The largest financial gap is in the area of health system, i.e. the physical infrastructure of clinics and hospitals and the training and salaries of health workers. The most pressing challenge is to close the remaining financial gap to enable universal access to a primary health care system in every low-income country. Sub-Saharan Africa should be able to reach the MDGs if commitments on finance are kept. If this investment is made, it could potentially save 16.000 children every day from dying (Bryce at al., 2005a; Sachs, 2010).

2.8 Changed perspective

WHO and the UN have in recent years started to recognize the importance of health in the role of strengthening communities and economies and positive health status has recently started to be seen as an essential objective of and a condition for development (Murphy, 2008). It is becoming increasingly clear that economic growth does not necessarily translate into human development. There are strong linkages between health, economic development, education and peace building that require further research. Each of these areas can reinforce or undermine progress in the others but it is becoming increasingly clear that health plays a major role in human development. At the 1991 International Health Conference in Accra, WHO emphasized that health status and development entities should not be pursued independently. It was also recognized that greater wealth is not a sufficient guarantee of improving health status. The experience of UN and other organization in the last few decades shows that the complex relationship between health and economic growth has a crucial role of health in poverty reduction. This is confirmed in the 2000 Millennium Declaration and the Millennium Development Goals (Murphy, 2008).

In light of this some researchers argue that development practitioners should shift their orientation to view health as the ultimate goal of economic growth rather than the other way around (Murphy, 2008). The Alma Ata declaration was revolutionary because it connected the human rights approach to health and that to an efficient plan to achieve it. The declaration identified primary healthcare as the key factor to reduce the inequality regarding health care service both between and within countries and by that; reaching the ambitious but unfulfilled goal: “Health for All” before 2000 (Rosato et al., 2008; UNICEF, 2009a).

In recent years, the focus has also shifted more towards prevention, education and improving care of mothers and infants, in the fight against child mortality. In the UNICEF report, *The State of World's Children 2009*, the underlying theme of the report is the importance of creating a good environment that supports and promotes the health of mothers and children. Health of mothers and children is closely linked so that to reduce mortality among the two groups in many cases demands the same interventions, i.e.: health care from pregnancy to child care after birth, including access to emergency assistance in the field of

labour, which involves adequate nutrition and education. Since few births take place in a health care facility in the low-income countries, the aim was to empower the community and train it to take care of mothers and children during pregnancy, labour and childcare. According to research, empowering and training the community can help in the fight against child and maternal mortality. Providing women with access to basic health care would reduce the maternal mortality rate and decrease the incidence of maternal mortality and that would have a positive impact on the child mortality rate (Rosato et al., 2008).

It is necessary, in a more broad perspective, to deal with underlying factors that are contributing to child mortality, like access to health services, education and job opportunities (UNICEF, 2009a). There is a need to encourage comprehensive and international subsidy for primary health care, including vaccinations and nutritional counselling, with the participation of health workers and the health service. The health service needs good and well-trained health workers and a good primary and emergency health care. Good health care service has to be put in place and a thorough follow-up regarding pregnancy and birth is also needed. Educational projects for women, for example about HIV and AIDS and child-care have to be offered and the mothers must have knowledge of where and when to go and seek medical assistance. Access to treatment for HIV and AIDS for mothers and children is necessary. In addition, it is necessary to consider factors like education, equal rights, life style and also social and economic factors. Last but not least there is a need for more funds to ensure good health care for all and in that way promote health of children and mothers (Jones et al., 2003; United Nations, 2008).

Research indicates that the MDGs are attainable because the interventions that are needed do exist and the funding needed has been promised. Despite changed views of the international community with emphasis on child and maternal health and primary health care, it seems that there has not been enough of a change, at least not enough to really count. We have UNICEF, WHO, a partnership for Maternal, Newborn and Child Health, and many non-governmental organizations that advocate vigorously on behalf of women and children. MDGs 4 and 5, regarding maternal and child survival, are also receiving more political attention; for instance, many governments are increasing their contribution to the topic and recent data shows great progress in efforts to reduce child and maternal

mortality, but still it seems that women and children remain invisible and the progress is not sufficient (Horton, 2010; UNICEF, 2009a).

According to Horton (2010), there are ten reasons why children and women remain invisible. The first one is the mission itself. Horton states that with changed views and attitudes of institutions and communities the social mission around women and children's health, especially gender equity, has been gradually extinguished. The second reason relates to our attitudes; a large numbers of the public remain unaware of the problems facing women and children. The third reason is lack of evaluations; too little effort goes into measuring the effects of our policies on maternal and child health. Without proper data the problem remains invisible. The fourth reason is translation; even when we do have data to guide policy, we frequently fail to apply it. The fifth is prevention; despite a compelling call to action, together with strong political support, little has actually changed. The sixth reason Horton names is integration; within the health community we are far too tribal. It is especially evident in the way one group in the health community talks about the concerns of another group, it often becomes insulting and demeaning. The seventh is empowerment; too often the health community ignores the potential power of women to mobilize for health. The eight is organization; if empowerment is taken to a national or global level even greater transformations can occur. The ninth reason is advocacy; we need to know more about the conditions for successful advocacy, and the final reason Horton names is leadership; there is insufficient coordination between groups representing maternal, newborn, child, and reproductive health.

According to Sachs (2010) we can reach the MDGs with accelerated effort. He states that promised funds can supply what is needed, i.e. better primary health care in the near future. UNICEF (2009a) also states that the major advances in lowering the U5MR made by many developing countries in recent decades provide reason for optimism. The causes of and solutions to child deaths are well known. Simple, reliable, affordable, and most importantly, available, interventions can save the lives of millions of children. UNICEF further states: “The challenge is to ensure that these remedies – provided through a continuum of maternal, newborn and child health care – reach the millions of children and families who, so far, have been passed by” (UNICEF, 2008a, n.p.).

In this chapter I have put forward research on child mortality, i.e. its frequency and distribution, contributory factors, development aid, assessment methods, global commitments made, actions put in place to fight the issue and the results of such actions. In addition, I discussed the question whether we can reach MDG 4 and how perspectives on the issue have changed in recent years. This I have done to examine the history of global actions against child mortality, results of such actions and the support of the international community.

My second objective was to examine the views and experience of health care workers and mothers, on child mortality and child health care services, in a low-income Sub-Saharan country with the aim of trying to identify the local socioeconomic factors that can contribute to child mortality. To do so, I went to Guinea-Bissau, a country in Sub-Saharan Africa, and did my fieldwork. In the next chapter I introduce the country and discuss child mortality in Guinea-Bissau and the structure of the health care system there. In addition, I describe the setting of my research, i.e. the health facilities I visited in Oio region.

3 SETTING

3.1 Guinea-Bissau

Guinea-Bissau is a small, coastal country located in West Africa, extending over 36.125 square kilometres. The climate is tropical with two seasons: dry season from December to May and a rainy season from June to November. It is bordered by Senegal to the north and Guinea to the south and east, with the Atlantic Ocean to its west (Biai, 2010; Einarsdóttir, 2004).

Figure 1 Retrieved the 5th of April 2011 from http://www.geographicguide.com/africa-maps/bissau.htm

3.2 History and independence

Guinea-Bissau is a former Portuguese colony of Portuguese Guinea. The rivers of Guinea and the islands of Cape Verde were among the first areas in Africa explored by the Portuguese in the fifteenth century but the interior was not explored until the nineteenth century (Davidson, 1969). Portugal claimed Portuguese Guinea in 1446, with cooperation of some local tribes, and became known for its main economic activity, as the Slave Coast.

In the early 1960s most African colonies were getting independence from their European colonial rulers and some of the rulers even continued to profit from trade with their former colonies (Davidson, 1969; Einarsdóttir, 2004). However, António de Oliveira Salazar, the prime minister of Portugal, refused to let go of his African colonies and that resulted is one of Africa's longest and bloodiest liberation struggles. Guinea-Bissau was one of those colonies and its history has since then been characterized by coup attempts and repression.

The struggle for independence in Guinea-Bissau began in 1956 when Amílcar Cabral and Raphael Barbosa organized the African Party for the Independence of Guinea and Cape Verde (PAIGC) clandestinely. The PAIGC started an armed rebellion against the Portuguese in 1961 and despite the presence of Portuguese troops, which grew to more than 35.000, the PAIGC managed to expand its influence and by 1968 they controlled most of the country. It was a long battle but they gradually claimed the country and in 1974 Guinea-Bissau won independence from Portugal. Upon independence the name of its capital, Bissau, was added to the country's name to prevent confusion with the Republic of Guinea with which they shared borders to the south (Einarsdóttir, 2007; Gorjão, 2010).

Since getting independence from Portugal Guinea-Bissau has experienced considerable political and military instability (Einarsdóttir, 2004). For the first 6 years after independence Luis Cabral was president but in 1980 a military coup, lead by his army chief Joao Bernardo Vieira, ousted him and Vieira then became president. Vieira had accused Cabral of corruption and mismanagement. Several coup attempts were made through the 1980s and early 1990s but they all failed and in the first multi-party free elections in Guinea-Bissau, held in 1994, Vieira was elected as president. He led the country towards a market economy and a multi-party system, but was accused of corruption and autocracy (Gorjão, 2010).

Four years after being elected Vieira was ousted after he dismissed his army chief and thereby triggered a civil war (Einarsdóttir, 2007). The war eventually ended after foreign mediation led to a truce. Another free elections were held in January 2000 where Kumba Yala was elected president but in September 2003, another coup took place where the military arrested Yala, because of the worsening economic and political situation. Kumba Yala was then ousted in a bloodless military coup. Henrique Rosa was sworn in as interim president and after being delayed several times, legislative elections were held in

March 2004. A mutiny of military factions in October 2004 resulted in the death of the head of the armed forces, and caused widespread unrest.

In June 2005 presidential elections were held for the first time since the coup and former President Joao Vieira was re-elected president, but he had been deposed in the 1999 coup (Einarsdóttir, 2007). He pledged to pursue economic development and national reconciliation but his rule did not last long. He was assassinated in March 2009 when renegade soldiers entered his palace and shot him dead. Malam Bacai Sanha was then elected president in an emergency election held in June 2009 and he is to this day the president of Guinea-Bissau (Gorjão, 2010). Guinea-Bissau still has relatively large armed forces and is one of the most militarized countries in West Africa (Motsamai, 2008).

3.3 Government and politics

Despite all these setbacks Guinea-Bissau is a republic and multiparty governance has been in effect since 1991 (Murphy, 2008; World Bank, n.d.). The president is the head of state, the prime minister is the head of government and there is a National People's Assembly made up of 100 members that are popularly elected from multi-member constituencies to serve a four-year term. At the judicial level, there is a Supreme Court that consists of nine justices appointed by the president.

There has been a democratic drive in Guinea-Bissau in recent years and the legislative elections in 2008 and Presidential elections in 2009 were considered to be free and fair by international observers (U.S. State Department, n.d.; World Bank, n.d.). However, the recent removal of the Army Chief of Staff and the temporary arrest of Prime Minister Carlos Gomes by military officers on April 1st 2010, indicates that the political situation in Guinea-Bissau remains fragile.

The country is also vulnerable to the influence of drug traffickers who have been using the country as a trans-shipment point in the cocaine trade from Latin America to Europe (Einarsdóttir, 2007). With direct routes from South America increasingly under scrutiny and the growing demand for cocaine in Europe, Guinea-Bissau provides an alternative route in the trafficking of cocaine to growing European markets. The unstable political environment of West Africa, weak border and territorial controls, lack of capacity of internal security, a growing culture of impunity and under-trained and poorly equipped judicial police

makes the country attractive to perpetrators. The weak criminal justice system and an inoperative correctional system makes the country susceptible to corruption and makes the country ideal for drug traffickers as it lessens the risk of apprehension and detention. Because of this Guinea-Bissau has been called the first narco state in West Africa (Einarsdóttir, 2007; Motsamai, 2008).

3.4 International aid

Since independence Guinea-Bissau became a sort of "laboratory" for aid policies. According to Einarsdóttir and Gunnlaugsson (2005b), there was optimism for the future in 1982 in Guinea-Bissau. Many multi- and bilateral institutions, along with NGOs, both from western and eastern countries, worked in Guinea-Bissau at that time. Primary health care was a priority and put in place in rural areas, with the help of the communities. Health care and the most necessary drugs were free. However, due to growing dept and lack of resources Guinea-Bissau turned to the IMF and World Bank, which put in place a structural adjustment program (SAP) in 1985, to curb government spending and borrowing (Murphy, 2008). After initial increases in growth, savings, and investment, the economy suffered under the program, and livelihoods and food security were further jeopardized. The SAP increased unemployment and underemployment at the same time as it fueled inflation and caused food prices to skyrocket. As a result, taxes went up and subsidies on food were eliminated.

The Ministry of Public Health in Guinea-Bissau (MINSAP) has received substantial technical and financial assistance from the United Nations and World Bank. The International Monetary Fund (IMF), the World Bank, and the UN remain the primary supporters of the government following the 1998-1999 civil war in Guinea-Bissau. However, the aid from donors over the years has been very uneven over the past decades (Murphy, 2008). According to Davis, Candland, Nielsen, Findley, and Nielson (2008, p. 27) "one of many goals of foreign aid is to promote security and stability in recipient countries however negative shifts in foreign aid can threaten those goals". They state that:

> [s]udden negative shifts in foreign aid can, affect the likelihood of war primarily by influencing a states ability to make and keep commitments that prevent violence from breaking out. For aid recipients, sudden aid shortfalls can prevent the government from making enough side-payments or military investments to provide a credible commitment to the preservation of the peaceful status quo (Davis et al., 2008, p. 27).

Support for Davis et al. (2008) hypothesis, that aid shocks lead to the outbreak of violent conflict, can be found in several countries, including Guinea-Bissau. "Of the fifteen most severe negative aid shocks in their sample, four of the countries—Guinea-Bissau (1997), Ghana (1981), Sierra Leone (1990), and Papua New Guinea (1991)—experienced violent conflict within one year and Lesotho (1994) and Togo (1980) experienced violence within four and five years, respectively." (Davis et al. 2008, p. 12). Davis et al. (2008) further suggest that conversely, "significant increases in aid ought to allow governments to stave off conflict by boosting military budgets and spending more on the goods and policy that the rebels approve" (Davis et al., 2008, p. 4).

In correlation with policies in the field of aid and the new emphasis on good governance and qualifications to be considered a desirable partner Guinea-Bissau has been labeled as a "difficult partnership country", "failed state", "narco-state", "empty state" and "aid orphan" (Einarsdóttir, forthcoming).

Einarsdóttir (2007) examined the use of the concept partnership in aid and the consequences of the partnership policy, which was formulated by international donor agencies in the late 1990s, for Guinea-Bissau. She found that: "in practice the policy underlines the unequal relations between donors and the poorest recipient countries, rather than the opposite" (2007, p. 93). Furthermore, fragile states need dependable donor flows to facilitate long-term planning and investments. In the research of Levin and Dollar (2005) on aid flows to forgotten, fragile states, or "Difficult Partner Countries" (DPCs), which includes Guinea-Bissau, they state that:

> In addition to their high aid-dependence, DPCs are by definition very weak capacity countries. In weak capacity countries, the duration needed for any aid-financed program to produce results in likely to be longer than in a country with similar poverty levels but stronger institutions. Turning the tap of aid on and off frequently may therefore be the wrong way to achieve the results donors are looking for. Since difficult partnership countries have greater development challenges than other aid recipients, as evidenced by their lagging performance on the Millennium Development Goals, it is important for the donor community to look more closely at their aid allocation patterns to these forgotten states (Levin and Dollar, 2005, p.113).

Levin and Dollar (2005) conclude that the volatility of aid flows to DPCs is twice as high as assistance to other LICs (low-income countries), even when sudden shifts in aid due to episodes of political instability are excluded. According to their research difficult partnership countries receive about 40% less aid than predicted by their policy and institutional strength in pooled-sectional regressions, primarily due to disproportionately low flows from bilateral donors.

According to Murphy (2008), as of January 2008, no major donor would commit to strengthening the health care system as a whole in Guinea-Bissau. Because of its chronic political instability and low international profile, the country has received less external assistance than many of the other countries in Africa and after the war many donors also discontinued aid. According to Murphy (2008, p. 37),

> [f]requent changes in government, combined with lack of accountability and ownership of government policies, have in recent years gotten in the way of international support. Some bilateral and multilateral organizations have renewed support to Guinea-Bissau, but the level of aid has been lower after the war.

As Einarsdóttir and Gunnlaugsson (2005a, p. 1136) stated, the citizens of Guinea-Bissau are “doubly damned — first for living in conditions of bad governance, and second for being denied aid for the same reason. “

3.5 The people

Guinea-Bissau has an estimated population of 1.600.000 and the population is ethnically diverse with different languages, customs and social structures (Murphy, 2008). Most of the population live in rural areas, or around 70%, but migration to the capital of Bissau has increased in recent years. The following ethnic groups are the most numerous ones: the Fula, Mandinka, Balanta, Papel, Manjaco and Mancanha. Most of the remainder are mestiços of mixed Portuguese and African descent, including a Cape Verdean minority and it also has a tiny Chinese population (World Bank, n.d.). Islam is currently practiced by 40-50% of the country's population, about 10% of the population belong to the Christian community and 40% hold indigenous beliefs, however, both Islamic and Christian practices may be largely influenced by traditional African religions (U.S. State Department, n.d.; World Bank, n.d.). The official language in Guinea-Bissau is Portuguese but only 14% of the population speaks it but 44% speak Kriol, a Portuguese-based Creole language. The remainder speaks native African languages but Guinea-Bissau has more than 20 ethnic languages. Most Portuguese and Mestiços speak one of the African languages and Kriol as a second language. French is also taught in schools in Guinea-Bissau because the country is surrounded by French-speaking countries (Biai, 2010).

According to numbers from 2008, life expectancy at birth is 47 years among men and 51 years among women, with an average of 49 years (WHO, 2010). For comparison, the global life expectancy was 68 years in 2008. The adult literacy rate among 15 years old and above is 64.6% and Guinea-Bissau is rated number 123 of the 151 countries rated on literacy (UNDP, 2009).

3.6 Economy

A long period of political instability has resulted in depressed economic activity, deteriorating social conditions, and increased economic imbalances (WHO, 2010; World Bank, n.d.). Guinea-Bissau is one of the poorest countries in the world, more than 2/3 of the population live below the poverty line and the country's per-capita gross domestic product (GDP) is one of the lowest in the world. Guinea-

Bissau also has a massive foreign aid dept and an economy that relies heavily on foreign aid. Guinea-Bissau's chronic political instability has greatly impeded development efforts and the country has poor infrastructure and weak social indicators (Murphy, 2008).

Prior to the conflict in 1998/99, Guinea-Bissau's GDP per capita had reached its highest point in history, or $206, after a steady rise during the 1990s, but it crashed by 30% to $145 with the outbreak of war in 1998 (Central Intelligence Agency, n.d.). The per capita GDP of just $136 in 2008 is still very low compared to the average of $583 for Sub-Saharan Africa.

The economy in Guinea-Bissau is primarily based on fishing and agriculture that represent about 55% of the GDP (Murphy, 2008; World Bank, n.d.). Agriculture generates 80% of employment and 90% of exports. The country's vital cashew nut crop provides a modest living for most of Guinea-Bissau's farmers and is the main source of foreign exchange but Guinea-Bissau produces one-sixth of the world's cashews. However, both the agriculture and fishing industries in Guinea-Bissau are severely underdeveloped. Despite the economy's initial post-war recovery from 1999-2000, boosted by increased cashew production, Guinea-Bissau's GDP has shown only modest signs of growth in the twenty-first century.

Guinea-Bissau has not been able to establish stable and effective governance institutions and therefore struggles with poor health services, chronic poverty, and food insecurity (Murphy, 2008). The political leaders and governance institutions of postcolonial Guinea-Bissau have consistently failed to build a pro-poor economic and social progress. Nevertheless, according to the World Bank (n.d.), Guinea-Bissau has started to show some economic improvements after a pact of stability was signed by the main political parties of the country, which lead to an IMF-backed structural reform program.

3.7 Organization of the health services

Health services in Guinea-Bissau are provided almost exclusively by a national health system coordinated by the Ministry of Public Health (MINSAP). In addition, the Catholic Church administers a small number of health centres and hospitals across the country (Murphy, 2008). "The ministry is responsible for developing health policies, organizing health-related human and physical

resources, and delivering health care through a hierarchial structure that includes national and regional hospital, health centres and basic health units“ (Biai, 2010, p. 18). Primary health care services comprises community health units and health centres, secondary health care services include regional hospitals, and tertiary services the national referral hospital and national specialized hospitals.

„In 1978, Guinea-Bissau, as one of the first countries in the world, adopted a national health plan based on the Alma Ata declaration. The national health plan 1989-1995 had the objective of providing primary health care for the whole population by year 2000” (Biai, 2010, p. 18). A revised national health plan for the period 1997-2002 was finalized in at the beginning of 1998, but it was halted by the civil war in 1998-99 (Biai, 2010).

Like in many low-income countries there are difficulties in maintaining a good health care system in Guinea-Bissau for several reasons, such as conflict, poor governance, economic and humanitarian crises, and lack of resources (WHO, 2010). The citizens of Guinea-Bissau suffer among the worst health indicators in the world. According to a WHO World Health Report Guinea-Bissau´s health care system ranked number 176 of the 190 countries ranked (WHO, 2000). In addition, according to the United Nations´ *Human Development Report 2010* (UNDP) Guinea-Bissau ranks 164 out of 169 countries the human development index. The country is below the standard average in term of Gross National Product (GNP) per capita, life expectancy, access to safe drinking water, literacy, primary education rate, among other elements of reference. Murphy (2008), states that poor health, education, and economic development in the country stem from weak governance and insufficient and volatile aid flows. By the government´s own account, Guinea-Bissau is not on the track to achieve the MDGs by 2015. Public health, in particular, has suffered as a consequence of instability in Guinea-Bissau has not drawn the necessary attention of the government, donors or the UN. Indeed, a senior official in the government of Guinea-Bissau confirms that health is “the forgotten sector in a forgotten state” (Murphy, 2008, p.7).

3.7.1 Cost

One of the major roadblocks to a fully functioning health care system in Guinea-Bissau is the challenge of funding. Guinea-Bissau relies on foreign aid to finance health care and has also established user-fees, like many countries in Africa. In

Guinea-Bissau the total expenditure on health per person was $33 in 2007 and the government was responsible for $8. Total expenditure on health of gross domestic product was 6.1% in 2007. For comparison, the global total expenditure on health of gross domestic product, at the same time, was 9.7% and in the African region it was 6.2% (WHO, 2010). However, according to Murphy (2008), $34 per capita is necessary to provide quality and equitable coverage for all citizens.

Nearly half of the annual total health expenditure in Guinea-Bissau comes from user-fees and the country has made little progress toward developing social system and community insurance schemes to create resources for health care. The user-fees for health care services discourage people from seeking care and contribute to further impoverishment for those who use the service. Moreover, because of the very small size of the private sector and government mismanagement there are limited tax revenues to financially support health care services (Murphy, 2008).

3.7.2 Health care facilities

Simão Mendez is the central hospital and a national teaching hospital and it is situated in the capital, Bissau. It is a 500-bed hospital and the only tertiary hospital in the country. According to Lis (2003) there were some damages to the hospital structure during the civil war in 1998 to 1999 but the most serious constraints are due to chronic under-funding, especially after the war. Other hospitals in Bissau, e.g. the tuberculosis hospital and the psychiatric clinic, and health centers were also damaged during the civil war and some have still not been fully repaired.

On the regional level, the country is divided into nine administrative regions; within health care, there are eleven sanitary regions as the Cacheu region and Boloma/Bijagos are each split into two sanitary regions. There are four smaller referral hospitals in the towns of Bafata, Cacheu, Gabu, and Tombali and also approximately 115 community health centers throughout the country (Murphy, 2008).

On the local level, the eleven sanitary regions are split into 114 so-called sanitary areas. The population in each of the sanitary areas is served through sector hospitals and health centers or village health units that are responsible for providing basic health care, including childhood vaccinations, dissemination of

information and execution of distribution campaigns. The health centers are often run by chief nurses that are sometimes assisted by midwifes and laboratory technicians (Cá, 1999). Since late 1970s, hundreds of village health units have been constructed in all regions with donor support.

3.7.3 Health care workers

The health care system in Guinea-Bissau is severely understaffed and health care workers lack sufficient training and incentives to provide high quality care. During and after the war there was heavy emigration of health workers from Guinea Bissau where at least 20 of the 168 physicians left the country. About a quarter of doctors and nurses left the country during the civil war and many continue to emigrate for better paid jobs abroad (Murphy, 2008). Before the military uprising in Guinea Bissau in 1998 there were six functioning hospitals and the doctor to patient ratio was approximately 1 physician per 8100 people, and approximately 1 nurse/midwife per 1050 people (Lis, 2003).

According to statistics from WHO (2010), there were 78 physicians in Guinea-Bissau between 2000-2009, which means a density of less than 0.5 per 10.000 individuals. At the same time there were 953 nurses in the country, with a density of 6 per 10.000 individuals. For comparison, the global number of physicians was 8.747.790, with a density of 14 per 10.000 people in 2000-2009. Global number of nurses was 17.548.759, with a density of 28 per 10.000 individuals, in 2000-2009. The Joint Learning Initiative recommends a minimum density of 2.5 per 10.000 individuals for doctors, nurses, and midwives to reach 80% coverage for skilled birth attendance and measles immunization (WHO, 2010). Furthermore, Guinea-Bissau does not have an adequate number of pharmacists, and there is also a lack of qualified laboratory technicians (Murphy, 2008).

According to Murphy (2008), a source of great potential in Guinea-Bissau's health care system are the CHWs, but they are nearly three-quarters of the entire health care work force. The CHWs in Guinea-Bissau serve as liaisons between the small number of health care professionals (doctors, nurses, and midwives) and community members. Studies in many African and South Asian countries have shown that pragmatic use of CHWs with focus on prevention and

treatment of common illnesses like malaria and diarrhoea can lead to a substantial drop in child mortality.

3.7.4 Access to health care

When evaluating access to health care services, statistics can give a good idea of the situation. According to WHO (2010), 39% of births were attended by skilled health personnel in 2000-2008 in Guinea-Bissau. Antenatal care coverage with at least one visit in 2000-2009 was 78% and 62% with at least four visits. Immunization coverage at 12 months of age was 76% in 2008 and coverage of DTP3 was 63%. Neonates protected at birth against neonatal tetanus was 94% in 2008 and 58.6% of children aged 6-59 months received vitamin A supplementation in the period 2000-2008. Children under the age of five years old that sleep under insecticide-treated nets was 39% in Guinea-Bissau in 2000-2008 but bed nets are crucial in the fight against malaria, which is one of the leading causes of U5MR in Guinea-Bissau.

Helgason (2008) conducted research on bed-net use in Guinea-Bissau and found that in many areas bed-net use is high, or above 90%, with many individuals sleeping under each net. According to his research bed-nets are considered indispensable during the rainy season and they are exclusively used for insect protection. Although in very remote rural areas there can be limited access to markets selling nets and prices can be high. These remote areas showed much lower rates of bed-net use.

Research suggests improvement in recent years regarding access to health care service in Guinea-Bissau but at the same time it also suggests variation in progress in different areas. Guinea-Bissau is not a large country, nevertheless, access is deficient and there is a chronic lack of resources. Poor roads and unreliable, expensive public transportation has an affect too. Equipment is also poorly maintained and regular ruptures of stocks require health care workers to reuse supplies. In addition, the drug distribution system is mismanaged and essential medicines are frequently unavailable. The health centers and village health units do not seem to provide sufficient access to quality care and this weak network results in patient overload at the National Hospital, which is the only health structure that serves the entire nation (Murphy, 2008).

3.8 Child mortality in Guinea-Bissau

In 2008 Guinea-Bissau was globally ranked with the 6th highest U5MR, but the five countries with the highest U5MR were also in Sub-Saharan Africa, except for Afghanistan (UNICEF, 2008a). According to data from WHO (2010), in 2008, the neonatal mortality rate per 1000 live births was 45 in Guinea-Bissau, the infant mortality (the probability of dying before the age of one year) per 1000 live births, was 117 and U5MR was 195 per 1000 live births.

According to an assessment made by Black et al. (2010), it is estimated that 12.164 children under the age of five years old died in Guinea-Bissau in the year 2008. This includes 2.910 newborns (0-27 days old), and 9.254 children at the age 1-59 months old. According to this research the causes U5MR in Guinea-Bissau in 2008 were: AIDS with 231 deaths, diarrhoea with 2.321 deaths, pertussis with 283 deaths, tetanus with 31 deaths, measles with 290 deaths, meningitis with 355 deaths, malaria with 2.147 deaths and pneumonia with 2.191 deaths. Other infections caused 1.352 deaths. Preterm birth complications caused 942 deaths, birth asphyxia 744 deaths, neonatal sepsis 617 deaths and congenital abnormalities 202. Other non-communicable diseases caused 208 deaths and injury caused 249 deaths (Black et al., 2010). WHO (2010) gives similar distribution of the causes of death among children under five years old in Guinea-Bissau in the year 2008: HIV/Aids 2%, diarrhoea 19%, measles 2%, malaria 18%, pneumonia 18%, prematurity 8%, birth asphyxia 6%, neonatal sepsis 5%, congenital abnormalities 2%, other diseases 18% and injuries 2%.

Countries in the world are ranked according to their progress towards achieving MDG 4 by the following classification: *on track* if U5MR is less than 40 deaths per 1.000 live births, or less than 39 deaths per 1.000 live births plus average annual rate of reduction (AARR) higher than 3.9%; *insufficient* if U5MR is greater than 29 deaths per 1.000 live births plus AARR between 0.9-4.0%; *no progress* if U5MR is greater than 29 deaths per 1.000 live births plus AARR lower than 1% (Bhutta et al., 2010). According to this classification Guinea-Bissau is ranked as insufficient to achieve MDG 4. The average annual rate of reduction in Guinea-Bissau was 1.2% in the period 1990-2000 and the country is therefore not on track to meet MDG 4. However, there is accelerated progress and there has been a drop in the U5MR in Guinea-Bissau. It was 240 per 1.000 live

births in 1990, 218 in 2000 and 195 in 2008. Therefore, there is progress being made in Guinea-Bissau, even if it is slow (Bhutta et al., 2010).

According to Biai et al. (2007, p. 1):

> Paediatric hospital wards in developing countries have failed to respond adequately to the challenge of saving severely sick children. Problems have been identified in triage and emergency care, in monitoring procedures and follow-up of treatment guidelines, and in the unavailability of drugs. These factors have contributed to high mortality in hospitals in which health personnel are poorly paid and unmotivated. Staff training alone is not a solution, and organisational difficulties and follow-up of patients have been identified as important problems.

According to Biai et al. (2007) the mortality rate is high in the paediatric ward in Simão Mendez hospital in Bissau, where, with the variation of 12-18% and specific malaria, mortality was 12% in 2004. From 1991-1996 56% of deaths at the paediatric ward occurred within 24 hours of admission. About 70% of the children admitted to the hospital have the clinical diagnosis of malaria, and around 44% of children under the age of five have parasitologically confirmed malaria. These findings led the National Malaria Control Programme and the paediatric ward, in collaboration with the Bandim Health Project and WHO country office, to demand drug kits for emergency management of children with severe malaria.

With the aim of seeing if this initiative was having an effect on the child mortality rate at Simão Mendez hospital Biai et al. (2007) conducted a study, where they tested whether strict implementation of a standardized protocol for the management of malaria and provision of a financial incentive for health workers reduced mortality at the pediatric ward. All the children admitted to the ward with severe malaria received free drug kits and 951 children aged 3months to 5 years participated in the study. Biai et al. found that in-hospital mortality was 5% for the intervention group and 10% in the control group. They concluded that supervising health care workers to adhere to a standardized treatment protocol was associated with greatly reduced in-hospital mortality. In addition, financial incentives might be important for the dedication and compliance of staff members.

Sodemann, Jakobsen, Mølbak, Alvarenga and Aaby (1997) investigated care-seeking behaviour of mothers of 125 children deceased, aged 1-30 months, in an urban area of Guinea-Bissau. They found that 93% of the children were seen at a health centre or a hospital during the 2 weeks before they died. In a previous survey covering the period 1987-1990 they found that 78% of the children who died had been for a consultation. Despite this increase in care seeking, infant mortality had not decreased. According to Sodemann et al. (1997), these results reveal a need for improved hospital admission criteria, improved recognition of the symptoms of serious illness, better discharge criteria, and the implementation of quality assurance systems for health services.

King (2010) conducted research on the knowledge and reported practices of men and women on child health in rural Guinea-Bissau. She found that there were low levels of appropriate knowledge on child health and that there were some inappropriate practices and generally low vaccination coverage. She found that knowledge was improved among those who had higher educational level. She concludes that health education should be an integral part of services that aim to improve child survival in Guinea-Bissau. These educational activities should focus on diarrhoea, malaria, pneumonia, pregnancy, delivery, neonatal care and vaccination coverage, as these are the areas where knowledge and practices were found to be inadequate in this study.

These research results give a clear indication for better, more accessible health care services with better health education, not just in the rural, but also urban areas. In addition, better trained and better paid health care workers with clear protocols are important factors in effectiveness of health care measures.

3.9 Study area

Oio region is the most populous region of Guinea-Bissau, after the capital Bissau itself. The region has a very multiethnic population that consists of about 225.000 inhabitants. Most inhabitants of Oio region depend on agriculture and trade to make a living.

The regional authorities, including the Regional Health Board, are situated in Mansoa, the biggest town in the region. The region has three medium sized hospitals, i.e. in Mansoa, Farim and Bissora. The hospital in Mansoa is the main hospital of the region and there is also a health centre situated there. The hospitals

in Farim and Bissora are smaller and refer patients to Mansoa or Bissau in case of need. There are twelve functional health centres in the region, i.e. in Guidage, Binta, Candjambari, Cuntima, Olossato, Binar, Nhacra, Gamamadu, Encheia, Mores, Mansaba and Nhoma. There is an additional health centre in Portugole but it has not been functional for some time. In addition, there are 106 village health units in Oio, however only about 30 of them are functioning to some degree and most of them have problems (Einarsdóttir, Baldursdóttir and Gunnlaugsson, un-published manuscript).

Mansoa is about 60 kilometres from Bissau and has 39 beds. The maternity ward, with twelve beds, was opened in April 2009 and in July 2010 there were added 15 beds for TB and HIV/AIDS patients. There are five beds dedicated to children, and because of the new beds it is possible that this number will increase in the future. The hospital is served by total of 39 staff members. There are two national doctors, i.e. one for general medicine and another for anaesthesia, and two Cuban doctors. Further, there are six general nurses (3 years of studies), three assistant nurses (2 years of studies) and two midwives. One nurse has been trained to attend deliveries as well. There is electricity in the hospital and running water. Malaria tests are free of charge in the hospital. Consultation is 250 CFA (0.4 Euros) for children and 500 CFA (0.8 Euros) for adults in the hospital.

Farim is about 120 km from Bissau and the hospital there is farthest away from Bissau of the hospitals in Oio region. Farim is close to the border to Senegal and the population is mostly Mandingas, who are Muslims. The hospital in Farim has 27 beds, including six for the maternity ward but no beds are dedicated to children. The health care staff includes four medical doctors, i.e., the regional director of health, regional director for clinical services and two doctors for general medicine. In addition, there is one general nurse, four assistant nurses, two midwives, one pharmacist, one laboratory analyst, and one administrator. If the patients stay over night at the hospital it costs them 500 CFA irrespective of the length of the stay. In the health centres in the Farim area the consultation fee is 50 CFA for children and 100 CFA for adults but 250 CFA (0.4 Euros) for children and 500 CFA (0.8 Euros) for adults in the hospital. Since June 2009, admitted patients are not served any food at the hospital. In the hospital malaria tests are free of charge. In addition to their work in the hospitals and health centres, the

health care workers visit the villages to consult and vaccinate. The hospital has free access to electricity, through the support of the telephone company, and running water. They have a telephone and they give their number to the villages. The health care workers have some motorcycles to go to the villages and get medicine. When they need to they refer people to Mansoa or Bissau and there are two ambulances situated in Farim. The payment for an ambulance from Farim to Mansoa is about 10.800 CFA (about 17-18 Euros). That is for 20 litres of gasoline.

Bissora is about 30 kilometres from Mansoa and rather centrally located in the region. The hospital in Bissora is the smallest in the region and has about 15 beds, according to my own counting. There is a midwife, a few nurses, lab technician but no medical doctor. Consultation fee for children is 250 CFA (0.4 Euros) and 500 CFA (0.8 Euros) for adults. Each prenatal consultation is 1500 CFA (2.3 Euros). Some free medicine is available, e.g. for malaria and malaria tests are free. Malaria nets had been free of charge, but not anymore. The staff has a motorcycle to go to the villages and get medicine in Mansoa. In case of need, people are referred to Mansoa. The ambulance that serves Bissora is situated in Mansoa and to get the ambulance to Mansoa costs about 8.000-11.000 CFA (12-17 Euros), which is what is needed to pay for the gasoline.

Nhacra is about 35 kilometres from Bissau and situated between Bissau and Mansoa. At the health centre in Nhacra there is a nurse, midwife, laboratory technician and a medical doctor, who is in training and not always there. Consultation for children is 250 CFA (0.4 Euros) and 500 CFA (0.8) for adults. There is no running water and no electricity. In case of need, there is one bed for observation of patients, and in emergent cases they referred people either to Bissau or Mansoa.

The village Fanhe is not far from Nhacra and there is a small road, about 5 kilometres, from the main road, to the village. The village health unit in Fanhe is an unusually good facility, I was told, because they are supported by an Italian organization. The organization also supports a school and a preschool close to the village health unit, and the CHWs said it made it easier for them to monitor the health of the children in the village. The CHWs refer difficult cases to Nhacra, the nearest health centre, or to Mansoa, the nearest hospital. It costs about 8.000 CFA (12 Euros) to rent a car to Nhacra and 14.000-15.000 CFA (21 Euros) to get a car

to Mansoa. The CHWs only have a bicycle for transport and to get supplies and medicine from the regional deposit in Mansoa.

In some places in Guinea-Bissau, Catholic nuns run clinics for malnourished children. I visited one such clinic in Mansoa. They help mothers and advice them when their children are malnourished. It is also common that the nuns give formula to mothers who have twins. At least two of the health care workers I spoke with said that they refer mothers with malnourished children to receive care by the nuns.

In this chapter I have introduced Guinea-Bissau, i.e. the history and struggle for independence, government and politics, history and allocation of aid, the people and the economy. In addition, I have described the structure of the health care system and its services, the child mortality rate and main causes of U5MR in Guinea-Bissau, and described the health care facilities I did my fieldwork in.

In the next chapter I will describe the methodology of the research.

4 METHODOLOGY

4.1 Me and the place

I spent one month in Guinea-Bissau, in March 2010, to conduct my research with the objective to examine views and experience of health care workers and mothers, on child mortality and child health services, in a low-income country in Sub-Saharan Africa, with the objective to try to identify the local socioeconomic factors in correlation with global discussion and actions.

This was my first trip to Africa. Up until about a month prior to my departure to Guinea-Bissau I planned to do my fieldwork in another African country but did not get permission in time. Thus, I had to change my plans and I had little time to specifically prepare for my research in Guinea-Bissau. Therefore I did not have much time to study the country, its culture or, most importantly, the language, Kriol. However, I had studied the topic of child survival and mortality.

What I knew was that Guinea-Bissau was a small country in West Africa that had been a Portuguese colony and that the country had dealt with political instability and conflicts. I gathered it was one of the poorest countries in the world and where child mortality rates were among the highest in the world.

During my stay in Guinea-Bissau I mostly stayed in Bissau, the capital, which has over 400.000 inhabitants. The town centre mostly consists of run down old houses and official buildings, obviously built during the Portuguese colonial time. Some of them are still damaged since the war in 1998. The rest of the city mostly consists of simple, small houses made by the local people. The streets are muddy and the main streets are crowded with cars, overcrowded taxis, people and animals; dogs, goats, chickens, pigs and cats. The animals seem to know their place although there are no fences. You can hear people talk or try to sell something, cars honking, children playing and smell food being cooked. You can sense the diversity of the people and see different religions being practiced. There are people everywhere, and street markets and sale stands with fruit, vegetables and various food, clothing, and other things for sale. It sounds chaotic, and it is, but it is also kind of comforting and fitting the location.

Except for one night in Farim, I spent the nights in Bissau and took day trips on buses and *sete pras* (7-seat cars) to the health facilities where I collected data. I stayed with Sigga, at her home, half the time and the other half I stayed at a

guesthouse run by missionaries. I had running water and electricity, during that part of the day when the generator was on. It was off during the night and part of the afternoon. Electricity and running water is a luxury that most people in Guinea-Bissau do not enjoy.

I found it difficult that I was not able to speak the language. It made me so dependent on Sigga and I found that particularly challenging. But as time passed I understood more and more and I think that the fact that I had studied Spanish helped me. However one may say that the language barrier also gave me an opportunity to observe more and "take it all in".

My plans changed almost every day and I had to adjust them according to every day situation and the possibilities that it offered. There was a lot of waiting for buses and cars as well as waiting to talk to people. This was a good lesson in patience. On the other hand all the waiting gave me time to sit down and observe the environment and the people. Sometimes I met new and interesting people and sometimes I got into small adventures with Sigga.

I had to adjust to different situations and realize my limitations and the challenges that I was facing because the language, culture and many of the customs are very different from what I was accustomed to. It helped to meet Sigga and have her by my side. I enjoyed her company and sometimes I had dinner with Sigga and her friends, went with them to concerts and one weekend we even went to Senegal. It was helpful leaving the situation behind for a short break. It was actually quite necessary because at times I felt frustrated, overwhelmed and even homesick. There were also times where I felt so powerless. I wondered what I was doing and if it would do any good. I knew I was not going to change the world but I wanted to make some small contribution in the fight against child mortality. But at times the problems seemed so overwhelming. Scheyvens and Storey (2003, p.107) described these feelings well and quoted Walsh[1] who describes research as an 'act of creation':

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[1] Walsh, A.C. (1995). Getting on Top of Your Thesis (2nd ed). Suva, Fiji: Amokura Publications.

> ’Like so many creators before you‘, he continues, ’you will feel isolated and lonely; you will doubt your ability and the worth of your work; and you will experience discouragement and even depression. During the course of your fieldwork you can expect at times to feel homesick, to miss the company of your friends and family, and to miss the pastimes you would normally enjoy‘.

But Scheyvens and Storey (2003) also point out that those experiences that are most difficult for us during fieldwork provide important opportunities to learn. Some even argue that it is necessary to place yourself in uncomfortable situations to understand them. It is not necessary for everybody to go to Guinea-Bissau to try to understand what it is to deal with problems like poverty and high child mortality rate, but the experience of seeing people beg, seeing very sick children in hospitals and the lack of resources facing people, gives you another appreciation. You can see a bus, but it is different to sit in it, smell it, listen to the people in it talk about their day, see and smell the chickens on the floor, with their legs tied so they can not move, and hear the goats trying to stand still on the roof of the bus when it takes a turn or hits a hole in the road. The perspective you gain by experiencing ´the field´ instead of researching it is different and gives you more insight. A very important part of fieldwork is to be in the place and get a feel of it and its people. During my time in Guinea-Bissau there were also times where I felt inspired and that I was actually contributing.

4.2 Research methods

In Development Studies it is possible to choose from many different research methods and approaches because it is an interdisciplinary education. Because of the nature of my topic I wanted to get qualitative data, in the form of interviews, but also quantitative data to support my research. I got health information from the Regional Health Board in Oio. My objective was also to research global child mortality and international actions and commitments towards the issue.

I gathered information in Oio region in Guinea-Bissau, by interviewing mothers and healthcare workers. I wanted to conduct interviews to get their perspective on the issue of child mortality and child health care. I had done some study on the topic beforehand and had written down questions for mothers and

health workers on issues related to child health and child mortality. The interviews were the main part of my data collection but to take interviews is a common method in social sciences. Esterberg (2002, p. 83) states that: “Interviewing is at the heart of social research”. According to her, much of social research is based on interviews and some even argue that it is the most popular form of data collection in sociology.

There are several types of interviews. I conducted semi-structured interviews, or in depth interviews. According to Esterberg (2002, p. 87), “in semi-structured interviews, the goal is to explore a topic more openly and to allow interviewees to express their opinions and ideas in their own words”. Because we cannot observe everything we might want to interview people to understand what life is like from perspectives other than our own. The goal is to “try to move beyond our own experiences and ideas and really understand the other person’s point of view” (Esterberg, 2002, p. 87).

When conducting a semi-structured interview the researcher typically has some basic ideas about what the interview will cover but the responses of the interviewee will shape the structure and order of the interview. So each interview is tailored to the interviewee. This kind of interview allows more free exchange between the interviewer and the interviewee. The interviewer needs to listen carefully to the interviewee and follow his or her lead. The interviews can take surprising turns. Semi-structured interviews are considered to be particularly useful for exploring a topic in detail or in constructing a theory (Esterberg, 2002). There is no research method superior to the other but a

> [s]mall sample interviews enables you to arrive at conclusions that are specific to the sample, but which give a reflective or explanatory depth to the subject being explored, and which – in the wake of detailed analysis – can include complex interpretations of how each person’s perspective relates to that person’s psychosocial context (Davies, 2007, p. 152).

That way you can "emerge with feelings, ideas, described experiences, opinions, views, attitudes and perspectives that have a breadth and depth to them extending beyond that which a structured questionnaire would deliver" (Davies, 2007, p. 152).

Scheyvens and Storey say that qualitative research is characterised by three commitments; "it seeks to understand the world through interacting with, empathising with and interpreting the actions and perceptions of its actors. It tends to collect data in natural settings and it tends to generate theory rather than test it" (2003, p. 57). So, to put it simply, the main goal of qualitative research is to understand human behaviour because the basis of qualitative research basically revolves around getting an understanding of human nature and the reasons behind it.

One of the most challenging aspects of conducting qualitative research is to analyze the data and there is also a lack of guidance concerning how to analyze qualitative data. It is however acknowledged that there are many approaches towards generating and analyzing qualitative data (Priest, Roberts and Woods, 2002a). I chose to analyze my interviews using qualitative content analysis. When using the method of content analysis you try to obtain the meaning of the text by developing themes from it. Repetition of coding then produces the significance of the themes. The text is then coded into established categories to support the generation of ideas. This means starting by reading the text a several times to get a feel for the master codes, from which further sub-codes would emerge (Priest et al., 2002a; Priest, Roberts and Woods, 2002b).

To complement my research I also wanted to get quantitative data. Quantitative data is often said to be objective, representative and most important, specified in numbers. In contrast, qualitative data is often said to be subjective, not representative and prescribed in text. The reason why quantitative data are thought to be more objective is because it is collected as independent facts and can be replicated by other researchers. Its particular strength is that it can be verified and replicated. (Scheyvens and Storey, 2003).

Quantitative techniques "can therefore be a powerful aide to Development Studies research for they can give us precise and accurate results and they can allow us to gain a picture of broad patterns and phenomena". "They have a particular utility when firm answers are required" (Scheyvens and Storey, 2003, p.

37). One good way of using quantitative data lies in the form of secondary data but that is standard practice when doing fieldwork in the Third World.

Whilst the use of quantitative research is essential in many aspects of research, it raises some particular problems and limitations. One of the most frequent criticism and one of the greatest dangers is the issue of representation. Despite data giving us a strong evidence of something it is clear that quantitative data does not give a clear scientific indication of process. The leap from correlation to causation should be made very carefully because we cannot generalize one truth from this kind of data (Scheyvens and Storey, 2003).

There is also the issue of the meaning of quantitative data. We can for instance confirm that a certain percentage of people have a particular opinion about the issue, but what does that really mean? There is also the problem of too much data that can rise. For example, I got over 700 pages of health information from the Regional Health Board, but I only needed a part of it. There is also the fact that if the data is flawed the results are worthless. It is therefore necessary to ensure authentic, valid and appropriate data and use methods of analysis that fit and make sure the analysis is done right (Scheyvens and Storey, 2003).

I obtained quantitative data by receiving health information from the Regional Health Board to support my research. There are no exact statistics on child deaths in Guinea-Bissau, so there is no accurate and exact data, only estimates. However, the information from the Regional Health Board allowed me to see how many children had visited the health facilities when sick and how many had received vaccinations.

4.3 Conducting the research

The collection of data was conducted in the region of Oio, at three hospitals, one health centre and one village health unit. I interviewed 12 women and nine health care workers. I collected data at the three hospitals in Oio; in Farim, Bissora and in Mansoa. I spent most time at the hospital in Mansoa, which is the region´s main hospital. The Regional Health Board is also situated in Mansoa, and there I received health information and assistance. I visited a health clinic in Nhacra and a village health unit in the village of Fanhe.

Sigga arranged meetings with health care workers for interviews and at the health facilities we visited, we approached mothers for interviews. These mothers

were waiting for consultations for their children or their children were patients at the hospitals. Sigga came with me to all the interviews and interpreted them all. I asked the questions in English, she asked the participants in Kriol and then repeated the answers to me in English. Sometimes we also spoke a bit of Icelandic. This may sound a bit confusing but it worked well for us. Sometimes during or after the interviews I asked Sigga questions in order to clarify if something was not clear to me and sometimes I also wrote down information that people gave us after the interviews were over. I have learnt Spanish, which helped me understand a little bit and as time went on my understanding increased. According to Davies (1999) there are always some implications and limitations of the process of translation. She gives examples: Humour, puns, a play between different linguistic registers or vocabulary, stylistic qualities, to name a few. So when translating interviews there are always some missing pieces.

I recorded all the interviews and I then dictated the interviews in the evenings or during the days spent in Bissau and a few of them were dictated after I got back home. At first I tried to write down information while conducting the interviews but I found that it interrupted me and I lost my focus. I therefore decided to simply listen and rely on the recording. It also allowed me to look at the body language and reaction of the people involved, and that, in turn, sometimes raised new questions.

I also got the chance to observe the health workers working, and have informal discussions with people about the subject, through Sigga of course. Watching the health workers work was especially interesting to me, because I am a nurse myself. It gave me an insight into how different options and resources we have and gave me a new appreciation of all the equipment and resources we have in the health care system at home, in Iceland.

I also received quantitative data from the Regional Health Board in Mansoa. Every month they get health information from the villages and towns in Oio. I copied their information from 2008 and 2009 by photographing all the data and studied it at home. The employees at the Regional Health Board were also helpful. We were allowed to sit in a meeting with health care workers from Oio and that helped us get in contact with people I wished to interview and get permission to come to the health facility where they worked. Not only did I receive the health information there as well, they also gave us all sorts of

information on where to go and whom to talk to. What is more, they answered all kind of questions related to the research and gave us all kind of other useful information.

4.4 Ethical considerations

Fieldwork in the Third World can give rise to many problems and ethical dilemmas. Practically, the main ethical considerations were consent, keeping informants identification and information confidential, and honesty. In Einarsdóttir (2006, p.196) research, on ethics and fieldwork in Guinea-Bissau, she claims that there are two important ethical considerations, i.e. informant anonymity and representation. At the beginning of each interview Sigga explained to the respondents that the interview was about children‘s health and mortality and that I was doing this research for my thesis in Development Studies. She explained how I would use the information, that all the information was confidential and that they did not have to answer any questions they did not want to answer. Most people were positive and many expressed that anything that could help them and their country was good. No one rejected giving an interview.

I found it problematic that there were not many places to be alone with the respondents. That meant that sometimes when I was conducting an interview there were other women or health care workers answering as well. Sometimes we got interrupted because someone came or the respondent turned to something else. It was therefore difficult to interview one person as there was little privacy. Indeed, you were never alone. Thus, it was difficult to promise confidentiality and I did consider whether the mothers could speak as freely as they wanted considering that all the interviews were taken at a health care facility meaning that health care workers and other people could possibly hear some of the interview. That could affect their answers. It did happen when conducting an interview that a woman said she was happy with the health care service but when I explained that the interview was confidential she had a less favourable opinion.

One of my biggest dilemmas was that I wondered whether I should give the mothers something for giving the interviews. They were giving their time and did not have much. One day at a hospital I gave the mothers some money and biscuits I had. I noticed that others saw it and it led to them asking for help at the end of interviews. I wondered if it affected their answers or if it had made some of

the women agree being interviewed who otherwise would not have agreed to do so.

Among the range of ethical issues to consider when doing development studies research is the power relationship between the researcher and the researched. Scheyvens and Storey (2003) state that the power imbalance exists on two levels: "real differences associated with access to money, education, and other resources, and perceived differences which exist in the minds of those participants who feel that they are inferior, and researchers who give the impression that they are superior". The nature of much Development Studies research means that researchers will be in positions of power in relation to most of the participants. This should make us engage in some self-reflection about the value of the research and be aware of the nature of the society and people's feelings (Scheyvens and Storey, 2003).

I wondered about the difficulty of talking about children dying and being sick and I also did wonder how people would respond to questions relating to such a sad and serious subject matter. I also had to question myself how involved I should get regarding the care of sick children. I found it difficult, as a nurse, to see situations where I knew that the case should be handled differently or I knew that they could be handled better if this would have taken place in Iceland, where I worked.

It is indeed a difficult dilemma whether or not to help people. When I and Sigga were in Farim we met a family with a 2½ week old boy who was seriously sick and the doctor at the hospital wanted them to go to Simão Mendes hospital in Bissau to meet with a paediatrician. They did not have any money to go and they were planning to wait until after the weekend. This took place on Friday. We decided to take the mother and her son with us to Bissau and pay for their expenses. We took them to Simão Mendes hospital to meet with a paediatrician, then to another hospital to get x-rays, then again to Simão Mendes and after that to a few pharmacies to get all the medicine the boy needed. We paid for it all and the total sum was about 10.000 CFA (15-16 Euros). That is a lot of money in a country where there is so much poverty. The question is: How could we not do that?

In her research on ethics and fieldwork experience in Guinea-Bissau and Iceland Einarsdóttir (2006) talks about not wanting to become a "professional rescuer" like Gottlieb and Graham (1993) describe. Einarsdóttir states that she tried to restrict her involvement but that she acted when she suspected that her intervention might save a life. For me that was one of those cases and there were more times when I paid for medicine and gave people food. But I did wonder if my involvement was affecting the mothers´ decision to participate in the interviews, and if I was getting too involved.

Another issue that has been controversial in recent years is the appropriateness of doing fieldwork in the Third World. The issue is raised "primarily from those concerned about the power gradients inherent in events such as relatively privileged Western researcher traveling to a Third World country to study people living in poverty". Some have referred to such research as 'academic tourism´, while others call it ´research travelers´ (Scheyvens and Storey, 2003, p. 2). The main concerns involve that this kind of fieldwork might expose the researcher to a greater risk and it might be more intrusive and even more exploitative than another, more traditional, method of research. Some say that fieldwork of this kind can legitimate the voices of Western 'experts' while undermining the voices of the local people. These are concerns to which there are no easy answers but they have forced Western researchers to be more accountable, especially since recent years of study show that much of such research does not always benefit the cause, or the country, which in turn questions the relevance of this kind of research. At the very least these concerns have made researchers more aware of themselves and of their effects on the research. Also, research processes in the Third World have been questioned and their role reconsidered (Scheyvens and Storey, 2003).

4.5 Short sights of the research

I only spent a month in Guinea-Bissau, and by that time I felt I was just getting into things and only beginning to feel the real essence of the country. I would have wanted to have more time. Obviously I would have gotten a better understanding of the people if I had spent more time in the towns and villages. The language barrier was difficult and made me have to depend entirely on another person to conduct my interviews. In addition, the mothers I interviewed

were at health care facilities and therefore it is safe to assume that I was not reaching mothers that are not regular users of such health care services.

In this chapter I have outlined the methodological background of my research, i.e. the research methods, conduction of the research, ethical considerations and short sights of the research.

Next chapter outlines the results of my interviews with mothers and health care workers on child mortality and health care of children and, in addition, I put forward information on children's health services in Oio region.

5 RESULTS

The collection of data was conducted in Oio Region. In total, I interviewed 12 women and nine health care workers. I collected the data at the three hospitals in Oio, i.e. in Farim, Bissora and in Mansoa. In addition I collected data at the health centre in Nhacra and the village health unit in Fanhe. I spent most time at the hospital in Mansoa, where I also got health information and assistance from members of the Regional Health Board.

5.1 Interviews with mothers

Of the twelve women interviewed, ten were mothers, one aunt attending with her sick nephew, and one grandmother with her daughter and grandson, although both women were also mothers. Almost all the women belonged to the Balanta ethnic group. Despite some were not sure of their exact age, their stated age ranged from 17-38 years. Together the women had given birth to a total of 45 children, and 34 of the children were alive. Seven women had lost one child, and two had lost two children.

5.1.1 Sick children

In Guinea-Bissau most children are born at home but births in hospitals are increasingly common, according to the obstetrician I interviewed. In the villages women sometimes give birth by themselves, mostly women who have had children before, but most commonly they have the support of other women or traditional birth attendants. The birth attendant is normally an older woman with experience in assisting child birth and the care of newborn (Einarsdóttir, 1988). According to Einarsdóttir research (1988), men are not allowed to be present during child birth in Guinea-Bissau, however the Balanta are an exception and allow the father of the child to assist.

By observing in the communities and at the health facilities it is obvious that mothers are the main caretakers of children in Guinea-Bissau. As Einarsdóttir (2004) describes in her research from Guinea-Bissau, an infant is never left alone and most of the time they are in physical contact with the mother or another caretaker. These can be aunts, sisters, co-wives or grandmothers. Later, the mothers carry their infant on their back but they also get help from other women. Men contribute to the care of the children but do not carry a child on their backs.

At night the infant sleeps with the mother and when a child cries the mother immediately offers it the breast or tries to comfort it in another way. I also noticed as, Einarsdóttir (2004) states in her research in Biombo region, that the mothers are observant of their children's needs. They try to keep them clean and warm and have them nicely dressed. When the children are older they are reared through play and punishment.

The women who were interviewed had sick children. Most had their child or children admitted to hospital or were waiting for a consultation. One mother had brought her child for vaccinations and another attended because of her own health. The women were asked questions about their children's health and what they did when they were sick. All the women I interviewed said that they usually brought their children to a health facility when they got sick, and that they would do that again. When I asked what was wrong with the child they had brought to the health facility, five women said they attended with their feverish child. Four of those children only had fever but one also had a respiratory infection. In addition, two children had diarrhoea and were vomiting. Newborn twins had diarrhoea, one child had diarrhoea and a respiratory infection and one child had been diagnosed with malaria and was very sick at the time of interview. Then there were two healthy children, one to be vaccinated and one with her sick mother.

The mothers were also asked if their children had been sick before and what had been wrong with their children at that time. They named similar symptoms, and the most commonly named symptoms or diseases were fever and malaria, but a few also named respiratory infections and diarrhoea. This is in line with what WHO (2010) and Black et al. (2010) state are the main causes of child mortality, i.e. malaria, pneumonia and diarrhoea.

During my research I noticed that at times mothers, or parents, were not told exactly what was wrong with their children, i.e., there was no diagnosis. In addition, commonly no tests were taken to confirm a diagnosis, like a blood or urine test, which might explain why there was no diagnosis. This reflects lack of resources. One of the mothers, who had sick twins, said she had lost two children before. When I asked if she had taken them to hospital when they got sick she said that she had: "I only went with them once, they gave us medicine but did not tell us anything". When I asked how long they had been sick she said she had taken

them to a hospital right away. She still did not know why her children had died and it was obviously painful for her to recall.

Many mothers who had their children in the hospital had support from their sister, daughter, mother, co-wife or other family members. Even though it costs money to come all the way, they did so if they could. Also, women who had family members close to the hospitals had good support from them. The family members often brought food, washed clothes for the mothers and came to get news about the children. It was in almost all cases female relatives. The fathers were almost always absent. It looked like they only came if the children were seriously sick and might not live. According to some of the nurses I interviewed and my observations, the fathers are rarely at health facilities with the mothers and children. One nurse said that the fathers almost never came with the mothers and children to a health facility but they were more likely to do so if they had some education. Of the 12 women I interviewed, the father was present in two cases. In one of the cases, there was a seriously sick girl with malaria. The other case was a little 2½ week old boy who had respiratory symptoms and had to be referred to Bissau. His father was a community health worker.

During my last day in Guinea-Bissau I went to Simão Mendez, the central hospital in Bissau, to see the conditions and observe. I noticed that fathers were more commonly present when a child was seriously sick and with life-threatening condition. This was evident by comparing the room with the most severely sick children to other rooms at the hospital. There were no machines or more equipment in the room assigned to more sick children (a kind of an intensive care unit), because it was not available, but the children there were obviously more seriously sick than the others.

5.1.2 Causes of child deaths

Asking someone if (s)he had lost a child and why that happened are difficult questions to ask, and probably even more difficult to answer. No matter who you are or where you live, to loose a child it is a terrible misfortune. It just seems so unnatural.

There are some scholars who believe that mothers who live in poverty and where there is a high child mortality rate do not grief their children as much as other mothers and selectively neglect the ones that might die. That was the result

of Scheper-Hughes (1984) research in a poor community in Brazil. However, Einarsdóttir (2004) did not find that to be the case in her research in Guinea-Bissau, and other researchers have as well come to the same conclusion. Consequently, these two different theories are being debated.

When the women were asked why their children had died the answers were different. One had given birth to a stillborn baby, three had had prematurely born babies (after 6-8 month pregnancy), and one mother simply said: "The child died in the womb", and did not give a further explanation. One mother said her child had had fever and died on the way to the hospital. The explanation she gave for the death of her child was "lack of hospital ". She said: "He had fever. He got fever at five-a-clock and the next day I was going to take him to hospital but he died on the way, in the middle of the forest". She explained that she would have brought the child sooner to a hospital if it had been closer to her home. Another of the women said that her child had not been sick before it died: "He was not sick, nothing, nothing happened. He was not sick. I went to the market and had him on my back. When I took him of my back he was dead". One mother who had lost two children said one of them had been a newborn and that it got a fever and died. The other child that died, she said, was "already sitting, … he had a fever and then got diarrhoea and then it stopped. He was playing again, then he got diarrhoea and fever again and then he died". When asked she said she had taken them both to hospital as soon as they got sick. The grandmother I interviewed had also lost two children. One had been about one year old and the other one only two days old. She said they had died because she did not perform a traditional ceremony. I asked if the children had not been sick before they died and she said yes. She said she had taken one of the children she had lost to hospital but not the other. Her explanation was that both the children had died because she did not do a traditional ceremony.

5.1.3 Traditional medicine and djambakus

Almost all the women I interviewed were Balanta but the Balantas are animists and the largest ethnic group in Guinea-Bissau, or about 27% of the population. Among the Balanta social and political domination of women and young men is institutionalized in their social system, having a patrilineal, segmentary lineage-based society with an age-set system. They practice polygamy with patrilocal

habitats and the senior men hold political and economical power (Carreira, 1962; Keesing, 1981). However, the Balanta women have some economic freedom and they are allowed to speak freely, even in the assemblies (Topsöe-Jensen, 1984). The Balanta live mainly in the central and southern regions of Guinea-Bissau and are chief agriculturalists and the expert rice growers in the country (Galli and Jones, 1987).

Like in most African countries, indigenous beliefs are very common in Guinea-Bissau. Beliefs in reincarnation are common in West Africa and Guinea-Bissau is not an exception. Reincarnation "means that human souls (defuntu) circulate through deaths and births between "this world" (es mundu) and "the other world" (utru mundu) (Einarsdóttir, 2004, p. 32). The Kriol word mufunesa is frequently used in Guinea-Bissau. "It connotes a mishap or tragedy caused by an international agent, either a human being, dead or alive, or a supernatural force. Mufunesa cannot be alleviated without an identification of the agent and a ritual action to eliminate it" (Einarsdóttir, 2004, p. 33). Religious specialists, such as djambakus, mediate such allevations.

According to Einarsdóttir´s (2004) research, among the Papel women in Guinea-Bissau, "when an infant is born the soul of a person who has already died is reborn in its body. In rare cases, the soul may be replaced by a spirit during pregnancy, resulting in the birth of a nonhuman child" (p. 91). They are called iran children by the Papel. The suspected iran children can have a wide range of physical anomalies or functional impairments, from very minor to serious. When a child is suspected of being an iran child the mothers take their children to a ceremony at a djambaku to verify the true nature of the child, by the survival or death of the child. It can also be a grandmother or another woman that takes the child. This is a part of the religion and the traditional medicine. The djambakus are religious specialist and each of them collaborates with a particular iran (spirit) and their work is specialized. While some djambakus can, for example, make a divination to determine whether or not a particular child is human, others can also cause its death (Einarsdóttir, 2004).

Temudo (2009) describes a new religious movement among the Balanta people, called N´hala, with Ntombikte as its leader. In 2003-2004, Temudo interviewed Balanta people and concluded that the Balanta rarely go to hospitals. Temudo stated that Ntombikte is of the opinion that witchcraft accusations have

been instrumental in keeping the Balanta "back- ward". In addition, Ntombikte believes that famine is the fault of the people, not of witchcraft and that they would be less hungry if they prayed to N'hala instead of worshiping shrines and spirits.

Temudo (2009) states that as most other people in Guinea-Bissau the Balanta believe that some individuals can make contracts with spirits. In that way they can become richer, or somehow "better" than their neighbours. Yet, at times these contracts imply high prices, e.g., in the form of human lives. Therefore, when people are ill, or when someone dies, other people suspect that a contract has been made with a greedy spirit and that the illness or the death was the price imposed. Temudo (2009, p. 52) further explains:

> Sometimes of course, misfortune attacks on a large scale and many people die, giving rise to more widespread accusations of witchcraft. On these occasions, the Balanta rely on the institution of the *fiery-yaab* - translated either as "open world" or "wide world" – which is an anti-witchcraft cult ruled by clairvoyant women in the company of a male or female *sik* (healer-diviner). After a visit to the bush, where they meet the serpent spirit *kuass,* these women become able to "see" who the witches are. The accused are afterward beaten violently until they confess their evil activities.

Callawaert (2000) studied this new religious movement among the Balanta in Guinea-Bissau. She states that Ntombikte "

> [w]ants to escape from the handling of a spirit world whose destructive agents are witches. She wants to break the vicious circle of divination, spirits´ demands, the envy in kinship relation expressed by witchcraft. She wants to rely on Nhaala alone, and she considers that she has got this mission to all Balanta: curing illness and barrenness cannot be realised through contract with spirits and offerings to ancestors, but through prayer and herbal medicine revealed by Nhaala (p. 278).

I asked the women if they had gone somewhere else with their sick child before seeking health care, where they usually first sought service for their sick child and if they used traditional medicine. All the women interviewed said that if their child got sick they would bring it to a health care facility first, before doing anything else or bringing it elsewhere and they also all agreed that they would not let traditional medicine stop them from seeking service at a health care facility. Almost all the women denied going somewhere else first with the child. However, almost all of the women used traditional medicine in some way or another. Nevertheless, one woman refused doing that and one said that she used it only if western medicine did not work.

The aunt, who was at a health care facility with her nephew, said that she had had to convince her sister to let her bring the boy for a consultation there. She told me that her sister did not believe in western medicine and never used it but she finally let her bring him because the traditional medicine had not been working. The mother did not come with them and it had taken a few days to convince her to let the aunt bring him to the health care facility.

The women stated that the traditional medicine is very much a part of the culture of the Balanta and most people use it. When one mother was asked about the use of traditional medicine she said: “We are Balanta. We do that but we also come here”. Another mother explained it like this: “The traditional medicine is part of who we are, as Balanta”. The grandmother, who thought that the two children she had lost had died because of the lack of a ceremony, said that she used traditional medicine but also that she would bring her children to a health care facility. She said that she would combine the two treatment options. This is actually what most of the women seemed to do. One of the other mothers said that if she had the traditional medicine she used it, and took it with her, but that she also always went to a health care facility. She had an ointment with her from a traditional healer, and used that with the treatment she received at the health care facility. However, one mother said that these two treatment alternatives, western and traditional medicine, could not be used together.

However, even though the mothers said they would bring their children to a health care facility first, before other alternatives were sought, some of them gave answers that seemed to suggest that they did indeed seek traditional medicine first. One mother said that she brought her children to health care

facility if they got sick but if it did not work then she sought traditional medicine. However, later she said that they (the Balanta) had a lot of traditional medicine but "if you do not have anyone to give you the traditional medicine you must go to the hospital". This suggests she would seek traditional medicine before western.

According to Einarsdóttir´s (2004) study among Papel women in Guinea-Bissau, when someone is sick some local herbal medicines are often used before any help is sought outside the home. They use variety of plants for this and knowledge about herbal medicine is widespread. She also states that there is clear distinction made between the two main categories of health care: *uso* or *mesinhu di terra* (local medicine) and *mesinhu di branku* (the white man's medicine).

Based on research and my interviews and observations, it is safe to assume that traditional medicine is widely used and often the first thing used when children are sick. I noticed that some of the children, and not just the ones at health care facilities, had necklaces and bracelets that were from traditional healers. This is a clear sign that the traditional medicine is commonly used in the Balanta culture, like the women and health care workers I interviewed indicated. The traditional medicine is closer to the people than western health care and also what the people are raised to believe in.

It seems that, in some cases it is the grandparents or the elders who believe in ceremonies and bring the children for them. In one case of a mother with a little sick boy, she told me that she always used western health care although she might use some traditional medicine. She told me that she did not go to ceremonies with djambakus but her mother had taken her boy for a ceremony. He had a bracelet and necklace from such a ceremony. The grandmother I interviewed stated that both the children she had lost died because she did not perform a certain traditional ceremony. She explained: "Because of ceremony, I did not do a ceremony, that is why. That made him die. … Because of *Fontana* … the spirit of Iran, that I did not do". When asked if she took the children to hospital she said:

> Not both. I went to do a ceremony in the land of Balanta, then I went to Bissau, and then I went home to the village to give birth and then he died after just two days. I did not go to hospital. I did some ceremony, then I got tired and started getting pain in my stomach, then I was tired and gave birth. There were no cars. At that time there were no cars, now there are many.

The women who used traditional medicine were also asked how much people had to pay for the service of a djambaku and they mostly said that it varied and did not mention an amount. One of the mothers said that it would cost around 2.500-5.000 CFA (4-8 Euros).

5.1.4 Health care services

According to my interviews it seemed to be the case that most of the mothers used both traditional and western medicine but all the mothers I interviewed also had a positive attitude towards standard health care and measures like breastfeeding, weighing and vaccinations.

According to Einarsdóttir (1988) research in Guinea-Bissau, after birth some women initiate breast-feeding right away, while others wait for 3-4 days or more, depending on their attitude to the first milk, but all women in Guinea-Bissau practiced pro-longed breast-feeding. Jakobsen et al. (2003) found that median length of breastfeeding in Guinea-Bissau was 22 months. In addition they stated that following termination of breastfeeding 66 children died before 36 months of age. In all, 62% of the children were weaned because they were "healthy" children but all other causes of weaning were associated with higher mortality. Weaning due to a new pregnancy of the mother was associated with higher child mortality rate.

All the women interviewed breastfeed their children and had them vaccinated, although some of their children had not been fully vaccinated or the older children had not been vaccinated. A few of the women said that it was difficult to get the vaccination card that is a requirement for having the vaccinations. They said that the card costs money, 1500 CFA (2.3 Euros), and that it is not accessible at all the health facilities. Most of the women had had their children weighed but that was mostly not done on a regular basis. The mothers

also seemed to observe their children's development and growth. Most of the women asked had attended prenatal care but not all of them and not all had done that regularly.

All women said that they would bring their child again to a health care facility if it got sick and that that was a common practice for them. When one of the mothers was asked why she had not taken her sick child, that had died, to hospital she said: "The hospital is far away, that is why". But she did not let that stop her this time: "Now I am smart and I came with my youngest now yesterday, just when she got fever, yesterday".

The mothers were also asked if they were happy with the health care service that they received. Most of them said that they were happy with the service where they were but two of them were not content with the health care workers. When one of the two was first asked if she was content with the health service she said yes and that she always came here to the hospital if her children got sick. When I explained that the information she gave was confidential she said: "I am not satisfied at all. They do not treat people, they do not treat well. They do not do analysis. They just give you medicine and nothing more. They do not do analysis and analysis is everything". The other of the two complained that the health care workers did not listen to the mothers, or parents. She said that her child was better but that they did not listen and then she said: "Its tiring, tiring. Even if you get the medicine they do not do it. They do not listen to you when you say you have this symptom and it is tiring". Another mother said she was happy with the health service she had gotten in a village health unit near her home but not when she had to stay with her child at a hospital [Simão Mendez]: …"It is bad. If you have a child, even if it dies they wont help you. They will just let you sit".

Some of the mothers had come to that particular facility they were at because they were content with the service that they received there but not the service that was offered more close to their homes. But most of the women had to come a long way to get health care service at all. Mostly they had to come a long way because there was no health care facility close to their home but also due to lack of functional health centres or village health units where they lived. Some of the women said that there was no point in going there because they could not help. The mothers agreed that there was both a lack of health care service and that the

existing health centres and village health units often did not work so they had to go somewhere else anyway.

Some of the women had come to a bigger facility, like a health centre or hospital, because they had to go to the market there anyway and used the opportunity, for example, to get their child vaccinated. It seemed that the service was better at the hospitals and that was why they chose to use that health facility. All the women agreed that they wanted access to health care service closer to their home and also that it would be cheaper to seek health care. They also wanted cheaper and better access to drugs and told me that sometimes the health workers did not have the drugs that were needed for their sick child.

According to Einarsdóttir and Gunnlaugsson (2009) research in Oio, children in villages with well functioning health units were better vaccinated than the children in villages with non-functioning health units. In addition, the mothers more frequently presented their vaccination cards, where they had well functioning health units.

The problem with having to go a long way also raises another issue, which is transportation. The roads in Guinea-Bissau are not in good condition and there are not always roads to the villages. Therefore, some mothers may have to walk a long way from their village to reach a place to get transport. It is also likely that they have more children that they might have to bring with them, because they are the main caretakers. This makes the trip more difficult and more expensive, if public transport it needed. The problem with transportation is inter-connected with yet another issue, i.e., money for transport. The problem with transport therefore affects access to health care because it affects a mother's ability to take their children to receive health care. One mother said that access to health care was very important: "Health is what we want most of all".

5.1.5 Poverty

Guinea-Bissau is one of the poorest countries in the world and poverty seems to be a factor that affects all aspects of the issues of child survival and mortality. Because health care service, transport, drugs and also the basic commodities, like food and clothes, required to keep your child healthy, it all costs money.

Poverty can therefore cause parents to bring their children later to a health facility. Most of the children of the mothers or caretakers interviewed had been

sick for a few days up to a week before they were brought to a health care facility. Thus, it seems to be very common that mothers, or parents, bring their children late to a health care facility - too often it is too late. According to Biai (2010, p. 7):

> [i]n practice, knowledge or recognition of danger signs alone do not avoid delay in care seeking. This suggests that, besides this requirement, there might be some other factors influencing care-seeking behaviour. Factors that can affect care-seeking behaviour include the ability to recognize danger signs, social profile, availability of resources, cultural aspect, and competing needs.

When the mothers or their substitutes were asked for the reason why they did not bring their children sooner to a health facility, in all cases they mentioned lack of money as the main reason. One mother said: "I will take the child to the hospital because I see that the hospital cures a lot of people … But if I don't have money I do not take them to hospital. If you do not have money people die". She added: "… If you stay at home you are not smart, you have to take them to hospital". Another mother explained: "There are times, yes, if you do not have the money you have to wait until next week". Therefore, the parents are dealing with a very difficult dilemma.

A mother who had a very sick girl with malaria at a hospital told me that the girl had been sick for a week. She was obviously very sick and unconscious at the time of the interview. When I asked the mother why she did not bring her daughter to a hospital sooner she said: "I had to borrow money, I borrowed 30.000 CFA (46 Euros) in my village. There is a health centre close to their village", she said and continued, "but it does not function. It is better here". She was obviously and understandably very worried about her girl.

Most of the women came from far away villages and most of them also had to walk and take a car to get to the health care facility they were at. They had paid from about 250-900 CFA (about 0.5-1.5 euros) for transport. One mother had a sick boy, about one year old. He had been sick for three days and she was at the hospital to get consultation. She had to walk five kilometres and then take a car to get to the hospital. She had paid 900 CFA (1.5 Euros) just to get to the hospital. She said that there was no health centre or village health unit near her village and

no one came to her village to vaccinate. She had not come right away with her child because she did not have money to do so. She had had to sell some chickens the get money to come. She even had one chicken with her to sell and get money to get back home.

It can take a while for people to raise the money needed to take their child to a hospital. It is not just consultation, medical supplies and drugs that you have to pay for when seeking health care. You also have to think of money for food. There is no food for people at the hospitals so you have to buy food yourself. And there are no sheets or clothing. You have to bring what you need with you or buy it. Therefore, if a child has to be admitted at the hospital it can be very expensive, especially for a family that does not have much. The grandmother that came with her daughter and grandson to one of the hospitals said that they had had 15.000 CFA (23 Euros), when they came but it was all over. They still had some medicine and the boy was getting better. Despite the cost she was grateful and said: "I cannot say that the drug is expensive because it cures us. If we did not have it, if they did not have it, my child would die".

At the same time, most of the mothers were grateful for the service they got and cured their children but they wanted better and more accessible health care service and drugs. The women agreed that the more expensive part is usually the drugs and also that they can be difficult to access. When one of the mothers was asked if she wanted to say something at the end of the interview she said:

> No, only if people could help with drugs. The drugs are expensive and at times you do not have money. Sometimes you have to go in circles to get the medicine. Drugs are very expensive here. Hospitals are cheaper (cheaper medicine) than the pharmacies. When I had to pay 5000 CFA (7.6 Euros) for medicine it was because they did not have it at the hospital. It is a problem.

The mothers who were staying at a hospital with their child stated costs from 15.000 to 30.000 CFA (23-46 Euros). One mother said: "I had 20.000 CFA (when she came to the hospital) but now it is over and I just want to go home". Another mother said: "We had 15.000 CFA and it has all been spent".

5.2 Interviews with health care workers

Of the nine health care workers I interviewed there were three nurses, two doctors, two midwives, one village health worker and one laboratory technician. I also informally asked a few nurses, working at Mansoa hospital, some of the basic questions I had. These included, the main reasons why children get sick or die and if parents often bring their children late to a health care facility.

5.2.1 Child survival and mortality

The health care workers were asked what they thought was the most common illness among children and also what was the most common cause of a child dying. All the health care workers said that malaria was the most common sickness among children, although respiratory infections, diarrhoea and other infections were mentioned. Almost all of the health care workers also agreed that malaria is the most common cause of a child death, although respiratory infections were also stated. This is in correlation with data from WHO (2010) and research by Black et al. (2010) that identified malaria, pneumonia and diarrhoea, as the main causes of child mortality in Guinea-Bissau. In addition, it is in line with what the women stated in their interviews. One nurse said that the main causes varied with the seasons:

> In the majority of the cases it is because of severe malaria. They can also die from respiratory infections, like pneumonia. Here they rarely die because of diarrhoea. It depends on the season what is most common. There is more malaria in one season, in another (November) there are more respiratory infections, and in the rainy season there is more diarrhoea because of the conditions of the water.

When the health care workers were asked what condition was most difficult to treat in children malaria was, once again, most commonly named. Although, one nurse said that malnutrition was most difficult to treat and one said it was respiratory diseases. She stated: “For malaria we have medicine but not for the respiratory diseases. We have some medicine but not for all”. The rest of the health care workers agreed that the disease they thought was most difficult to treat

was malaria and they also agreed that it was because the children are commonly brought so late to a health care facility. One nurse said: “It gets complicated because people come late. They do not come at the time when they see the child is sick. … Malaria gets complicated if it is severe and then it is difficult to treat it”.

All the health care workers that were interviewed, both formally and informally, agreed that it is very common that parents bring their children late to a health care facility. One nurse said: “They come late with their children. They say the child just got sick but you can see that it has been sick for some days”. Because of this it is more difficult to treat the malaria, because even though the treatment for malaria is simple and available it is much more difficult to treat it when the children have been sick for a while and the disease has progressed. One nurse said: “Malaria is the most common cause of a child dying. When they do not come in time, they come with convulsions”.

One of the nurses explained that malaria was the most common cause of children being sick and dying, however it was getting better: “In 2006 when I was here it was mostly serious malaria. National policies in the fight against malaria, implemented by the Ministry of Public Health, include many preventive actions”. He explained that when women come for a prenatal consultation in the first trimester they give them mosquito nets and when they come in the fifth month of pregnancy they take the first dose of *fansidar*, a medicine for the prevention of malaria. Then they have an interval for a month and after that they take the second and third dose. That will give them improved prevention against malaria. He further explained:

> We do that because malaria is a disease that many times makes the women give birth to a low birth weight child and makes the women go into premature labour. This gives the women many problems and they can loose the baby and get a spontaneous abortion. Yet, now since they [the government] do many things that has reduced.

He also said: “It reduces child mortality, it is very rare, because the mother protects it in the stomach and then they have a mosquitonet to sleep under. It helps a lot this prophylaxis that we do”. He also told me that when giving conusultations to children they give mosquito nets to all children that come with

fever. However, most of the facilities I visited did not have bed nets to give to patients.

5.2.2 Traditional medicine and djambakus

The health care workers all agreed that one of the main reasons why children are brought late to a health care facility, or not at all, is that parents seek traditional medicine first and bring their children to a djambakus. The health care workers agreed that traditional medicine and djambakus are one of the most difficult problems related to child mortality because it is so rooted in the Balanta culture. One nurse explained how illnesses happen according to traditional beliefs of the Balanta: "They say it is Iran that takes the child. It is a spirit that takes over the child and they have to do a ceremony. They look for a chicken or goat to kill. If that does not work and the child gets worse, they come here". Another health care worker had a similar description and explained further:

> Yes they come late to the hospital with children ... they come late because often some people - our population - have a lot of believes, so many of them go to a traditional healer [curandeiro], they go for traditional medicine but you tell them not to go that these things are witchcraft [bruxerias] but they say no as they have to go to djambaku for "bota sorte" (throw their luck to find out what is the matter with them), when they go there and they see that it does not solve the problem their last option is to go to hospital.

The traditional medicine of the Balanta has different explanations and diagnosis than western medicine and different methods of treatment. A few of the nurses explained to me that in the traditional medicine of the Balanta, malaria is the disease of the monkey. One nurse explained: "The children have convulsions at home, then they say that it is the *monkey* that took him. That is the tradition, they say: I ate monkey and that is what made the child have convulsions". Another nurse described the treatment:

> Also when people have malaria and get convulsions they say it is because of the *monkey*. You have to wash him. They say the *monkey* came and … They kill a monkey, keep the head and keep it in the house. And then they put the head in water and then they use the water to clean the child. When they have convulsions.

Still another nurse confirmed the description of the disease of the monkey and then said: "When they see that they cannot do anything to help they come here. And then it is too late". By the time that parents realize that the traditional medicine is not giving the expected results the children are often seriously ill and sometimes too ill to save them.

When I asked about the cost of traditional medicine some of the health care workers said that they did not know the cost of seeking traditional treatment and visiting djambakus but some said the prices varied a lot. One nurse said that it was expensive to visit a djambakus and therefore if people decided to seek health care service when the traditional medicine did not work they often did not have any money left to do so. He stated: "It can cost more than seeking health care but it is tradition and often it is closer". Another nurse agreed and said that it could be more expensive to go to a ceremony at a djambaku than seeking western health care:

> You have to buy a goat, it costs money but it is even more expensive. Medicine for malaria is about 150 CFA (0.23 Euros) at times to treat … But at times they pay 20.000 CFA (30 Euros) for a goat and they pay the djambaku 5.000 CFA (7.5 Euros)… So, you see. It is taboo. It is what is in your head. You have to sensibilize [the people]. But until now it is like that.

One nurse also explained that what can also increase the cost and make parents come even later is that sometimes when people do not get better from a treatment from one djambaku they are referred to another djambaku: "Then you go there and then you pay even more. That is why they come late". According to those statements, it is possible that parents sometimes have spent considerable amount of money and time on traditional medicine and djambakus when they

finally seek western health care. At that time they might not have any money left and the child might be too sick. Then there are people who do not believe in western medicine and might not bring their sick children at all to a health care facility.

The obstetrician I interviewed also said that its common that mothers come late when giving birth and that is often because they try traditional medicine first. As stated above, mortality among mothers is an important contributing factor for the infant mortality rate.

I did ask one doctor, in a town that has mostly Muslim citizens, if it was not primarily the Balanta who sought traditional medicine and she said that it was not just the Balanta. She said that Muslims go to see so-called *muros*, which, according to her, are also traditional healers, similar to djambakus, but for Muslims. A nurse in the same town did not agree with the doctor. He said:

> Here it is not usual because it is a different culture (why parents come late with children). The Balanta go first for traditional medicine or to djambakus, and as a last resort to hospital. But here it is an economical question. They do not go so much to djambakus. Here we have mostly Mandinkas (Mandinkas are Muslims).

5.2.3 Poverty

Although the health care workers all agreed that traditional medicine is an important influential factor in regard to child survival and mortality, they also agreed that poverty is also a very significant factor. The health care workers all agreed that parents mostly bring their children late to a health care facility because of lack of money. However, the health care workers seemed to be very aware of the problem and the fact that poverty affects people´s ability to pay for all aspects of health care, from consultations to the additional costs for transport and drugs. They explained that people sometimes had to race money to be able to go and seek health care, exactly like the mothers themselves described to me. One nurse said: “Problems in Africa, we live with difficulties of money. If you do not have money then you cannot go to hospital. That is the problem”.

In addition, even though all the health care workers said that people could get a consultation without paying right away, people always have to pay to get the

drugs they need and that can be the most expensive part and also the most important one. There was a pharmacy at all the hospitals but if they did not have the medicine, people have to go to an outside pharmacy and that can be more expensive. One health care worker stated: "If you don't have money you cannot get the medicine". He continued: "you can get a consultation and a prescription but you have to pay for the medicine". Poverty also affects peoples´ ability to pay for transport and the decision to go when they are referred to a hospital. When one midwife was asked how she feels when people cannot pay she said: "I feel sad. At times I pay for them if it is serious and they do not have money, or if it is someone who is poor".

5.2.4 The health care system and it's challenges

5.2.4.1 Lack of resources

The health care workers agreed that poverty and traditional medicine were the two main influential factors when it comes to child survival and mortality. But it is not just the people of Guinea-Bissau that deal with lack of money. The health care system in Guinea-Bissau also lacks funding and in turn resources to provide good health care. When the health care workers were asked, what was most difficult in their work they all named lack of resources. The health care workers all agreed that because of lack of funds the health care system is not functioning well enough and not reaching everybody, especially not people in rural areas. All the health care workers talked about lack of equipment and supplies and need for better facilities. They also said that better access to drugs and other medical supplies was needed. Access to water and electricity was also named in the facilities where it was not available. At the health centre the midwife said: "We also have to pay for water, each month for the quantity we use. We pay with private funds". She continued:

> There is also no light in the night, that is the most difficult… you have to work in the dark. We have a generator, it is there (points out the window)… but who will pay for it. We do not have that … When women give birth at night. That is the most difficult thing, no light in the night, when we have someone sick or pregnant.

When another midwife was asked what was most difficult in her job she said: “Lack of materials. It is difficult. We lack things in the maternity ward. Like pincettas and scissors. We only have two suture kits. We do not have linens. One nurse said: “Yes, there is lack of resources. No light and no water in the sink. We also just have one thing to clear the airway of newborns after birth. It is destroyed a bit, it does not work well”. Another nurse said: “We lack equipment, and we do not have anything to write in. The beds they are not good”.

Indeed, there seems to be a lack of things from office supplies, linens and furniture to equipment, supplies and drugs. The conditions in the health facilities I went to were very basic. The facilities were very simple concrete buildings with run down furniture and old beds. Only basic equipment was available, like stethoscopes, thermometers, scissors, scales and basic suture kits and tools, and most of it was old and some of it not functioning anymore. I never saw any machines, like monitors or portable intravenous pumps, that are commonly used in western societies and I use very much in my job as a nurse. The only machines I saw where a few old incubators at Simão Mendez hospital, the main hospital in Bissau, used as beds for newborns because they did not work anymore. Also, at the health facilities, there was not always access to electricity, clean water and proper toilets.

I knew when I went to Guinea-Bissau that the conditions were bad and I did not expect much but nevertheless it was shocking to see how very basic the conditions are. While doing research in Oio region the health workers all said that the most seriously ill children were sent to Simão Mendez hospital, therefore I expected the conditions and resources there to be somewhat better, but that was not the case. Although, there were more doctors there, including paediatricians, and access to x-ray machines and probably more tests and analysis could be performed. However, the resources there were still very limited. I went there on my last day in Guinea-Bissau and was a bit shocked by the lack of resources. I remember thinking: this cannot be it.

Most of the health care workers also thought that the village health units were not working as well as they had and should. They agreed that to improve the health care services the village health units were a key factor in being able to provide better health care service and to be better able to reach people in rural

areas. Some even said that the services had gotten worse, especially the function of the village health units. One nurse said:

> They come late because of economic reasons. Also, because of distance, it is often a long distance they have to go. Before when the health units were working they could go there. But now when they are not working, they do not have access to them, they have to look for money to be able to get here. That is also an important reason.

According to Einarsdóttir, Baldursdóttir and Gunnlaugsson (un-published manuscript) most of the village health units in Oio region are not functioning anymore. They conducted research on the subject in 1997-1998 and then revisited the health units in 2008. They found that in 2008 there were only about 30 health units still purchasing drugs and functioning to a certain level, of the 106 that had been constructed. If the health units were working better it would make health service more accessible and save people money and transport. But all these factors have significant influences on people´s ability to bring their children to receive health care.

5.2.4.2 Access to drugs

Most of the health care workers said that there was often lack of drugs in the hospitals, centres and units. According to the health workers it can be difficult to get drugs but they all have to go to Mansoa and get drugs themselves at the Regional Health Board. At the villages health units they also sometimes do not have money to buy the drugs that they need. In addition, another problem is that at times the drugs they need are not available at the Regional Health Board. The shortage of drugs seems to be sporadic. One nurse explained: “Normally at this time we have lack of medicine. The hospital gets money and then we buy medicine. The lack of medicine is always when they (The Regional Health Board) have some problem with CECON” (the national drug deposit). Because of that, I was told, sometimes there is a problem at the Regional Health Board, e.g. they do not have the drugs that are needed. One nurse said:

> We lack some medicine. It is not because we cannot buy it. At times, we have money but when we go to Mansoa to get it they do not have the medicine there. We have medicine, but not everything. …Every month we organize, go over what we have to buy and then go buy medicine in Mansoa.

At the hospitals and health centres they go every month to Mansoa, with health data, attend a monthly meeting and also buy the medicine that they need. I was told by one of the nurses at one hospital that when they need medicine that is not available in Mansoa, they sometimes go all the way to, their neighbouring countries, Gambia or Senegal to get it. According to Einarsdóttir and Gunnlaugsson (2009) research on health units in Guinea-Bissau, the most difficult problem in running the health posts was lack of drugs, in the opinion of the villagers. Without being able to give treatment in the health units their function is limited and people need to seek health care elsewhere.

One of the most important indices of the performance of primary health delivery is access to essential drugs. The Bamako Initiative (BI) was introduced by WHO and UNICEF in the late 1980s to improve access to essential drugs for the most vulnerable and in that way improve health outcomes. But now over 20 years later the impact of BI remains varied with no significant improvement in health status registered in the majority of countries where BI was applied (Chukwuani, Olugboji and Ugbene, 2006).

Drugs are very expensive in Guinea-Bissau and there is a difference depending on whether you purchase them at a hospital pharmacy or a pharmacy outside the hospitals. For example, according to a pricelist of drugs I got at Simão Mendez hospital, a 1g injection of the common antibiotic amoxicillin costs 130 CFA (0.2 Euros) there but at a pharmacy in Bissau, where I enquired about prices, the cost was 500 CFA (0.8 Euros). That is almost four times the cost in the hospital. Another example, a 10 ml syringe had the price of 85 CFA (0.12 Euros) at Simão Mendez hospital but 250 CFA (0.4 Euros) at the pharmacy in Bissau. That is more than three times the price. However, I was told, that sometimes the hospitals increase the cost of medicine and charge contrary to what the pricelist indicates. In addition, sometimes the hospitals give a price for one pill but you might have to buy more than you need to get the drug. Also, according to an

inquiry in a pharmacy in Mansoa, in some cases the price of drugs is even lower in the pharmacies outside the hospitals however I never saw a formal pricelist at the pharmacies. According to inquiries at two pharmacies in Mansoa and a pricelist from Simão Mendez hospital the prices at the hospital are better than the prices in the pharmacies. In addition, the prices at the pharmacies can be very different. In figure 1, prices of a few drugs and medical supplies in two pharmacies in Mansoa and at Simão Mendez hospital in Bissau are given.

Drugs	Pharmacy in Mansoa	Pharmacy in Mansoa	Simão Mendez Hospital
Aspirin (10 tablets)	250	100	30
Paracetamol (10 tablets)	250	250	60
Quinine (10 tablets)	500	500	330
Benzimidazole (6 tablets)	500	250	42
Folic Acid (10 tablets)	250	100	60
Gauze (one roll)	250	200	155

Figure 2. List of cost (in CFA) of drugs in two pharmacies in Mansoa and at Simão Mendez

5.2.4.3 Payment

The health care workers were also asked what happened if people who sought health care could not pay for the service they needed. In all the places I asked the health care workers agreed that they give people that cannot pay a consultation, write it down in their books and people could pay later, when they could. One nurse said: “Normally people pay but they often have problem looking for the money. When they do not have money that day they can pay another day. Others do not have any money but we help them”.

All the health care workers also agreed that people had to pay for the drugs to receive them but some of them also said that they sometimes paid for drugs for people in need with their own money, that is, if they could. One village health unit worker said: “If they do not have money and if I have money, I pay. That is how we do it, the two of us”. I asked if people mostly paid them back and he said: “…they sell something and return the money… Some do, some don’t”. One nurse told me that problems with payment are also connected with the cashew harvest. He said: “Only at the time of cashew harvest (i.e., they can pay) when women have some money so they can buy medicine”.

5.2.4.4 Transport and the referral system

The health care workers were aware of the problems that people have regarding transport to receive health care. Most of them stated that functioning village health units would help with that problem. The problem with transport does not just apply to the people who receive health care but also the providers of health care. The health care workers at the hospitals and health centre I went to, go to villages to vaccinate and they have to get drugs in Mansoa. The community health workers have to get drugs from Mansoa too, but at the village health unit they only had a bicycle to go to Mansoa. At the health centre in Nhacra they do not have a motorcycle but it is not far from Mansoa and there is easy access to daily transport to and from Mansoa. However, the access to Mansoa, and other hospitals, is probably not as good for other health centres. All the hospitals I went to had motorcycles that they use to go and get drugs and supplies and to go to villages. One nurse said: "The most difficult is, you know, Africa is Africa but Guinea-Bissau is even worse. Because, look at the nurse here, he does not have any way for transport, even if I want to go to the village. We do not have any means to go, we only have motorcycles".

All the health care workers expressed that they wanted to be able to go more to the villages because they are aware how difficult it can be for people to come to the health care facilities and to reach those that might not come at all.

The health care workers were also asked about the referral system, that is, if they thought that it was working properly. Proper referral is important, not the least when resources are so limited, as in Guinea-Bissau. Most of the health care workers said that the referral system basically worked but most of them also said that it had some problems. One nurse said: "There are some problems but the referral system is good. But there are problems". All the health care workers stated that if there was a problem that they could not treat at their facility they would refer it to the next hospital or health centre, depending on how sick people were. Most of the health care workers also agreed that people did not like to be referred. One nurse said: "They go but they complain about having to go". The main reason is that it is expensive to be referred. The nurse in Farim said: "Yes, it is because of money that people do not want to be referred. You need to have 6000 CFA (about 9 Euros) apart from transport to reach the services. And you have to buy things before you go there. Many people do not have that money and

decide not to go". People also have to pay if they need the ambulance. The nurse in Farim explained: "Yes, they have to pay for the gasoline. For 20 litres, about 10.800 CFA (17-18 Euros). That is the cost to go to Bissau".

Some of the health care workers said that people sometimes did not want to go or refused to go when referred because of lack of money. One nurse said: "It has caused problems, money, and people sometimes refuse to go when referred or taking the ambulance because they do not have the money". One midwife said that it did happen that people are referred with their child but they don't go. She said:

> One time I got a child here. He was vomiting and vomiting. And I told them they had to go to Bissau to get treatment there to get better. We gave him medicine and he stopped having convulsions and I told them to go to Bissau. The mother refused. She told me she would go but she did not go. I saw her later and he was getting treatment in the village.

All the health care workers agreed that the most difficult problem with referral for people was money, in that people always have to pay for it, whether they go by themselves or the ambulance.

Most of the health care workers also said that their experience of the ambulances was good however it also had some problems. The main problem with it was the same as with referral, money. One nurse said: "We have a good experience but there is a problem with money". In some cases people have to pay for the gasoline for the ambulance in advance but in some places they can pay later, when it is an emergency. One nurse explained: "We have reserved gasoline so the families do not have to look for money if they do not have it. It depends on the distance how much it costs. We calculate how much they have to pay and then the money that people pay goes towards paying for the gasoline that was used". I was told that 22 kilometres is about 1 litre of gasoline. In the places where you had to pay in advance the health care workers said that they wanted a system where there was a stock of gasoline for situations when people cannot pay and it is an emergency.

At one of the hospitals I went to, in Farim, it is especially difficult to refer people to Mansoa or Bissau because it is a relatively long way, about 120 kilometres, and the road is so bad that the trip is difficult and takes about three to four hours. To refer people from Farim to Mansoa or Bissau can also be challenging. You have to cross a large river to reach Farim and the boat that can transfer cars was not working when I was there and they only had small rowing boats to cross the river. Therefore the ambulance could not take people to another hospital, i.e., to Mansoa or Bissau. During my research I spent two days in Farim and just during that time two pregnant women came to the hospital with severe pre-eclampsia. According to a nurse the women had had little or no prenatal care and had had problems with transportation to Farim because their villages were far away. One of the women was transferred across the river in a rowing boat but the ambulance in Mansoa could not come and get her, thus the woman was taken in a car to Mansoa. For the other woman in was too late. Both women died.

5.2.4.5 Health education and delivery

When the health workers were asked if people had a positive attitude towards western health care they said that it was so but also that the traditional medicine sometimes got in the way and that health education was necessary to try to make people come seek western health care. One nurse said:

> Majority of the mothers know that the hospital has value. But some… even if you explain to make them stop using the traditional things they even come to the hospital with the traditional medicine. We ask that they do not drink it, but only wash the child with it and take it to the hospital. If we refuse them to clean them they will say that the child is not getting better, take it away and it will die in the village. That is how it is.

Most of the health care workers said that there was a great need to educate people on health so that they know to bring their children to receive health care. One nurse even said that that was the most challenging problem, to get people to bring their children to a health facility. It is important to reach people in the villages but also in the way that, there is need to convince and educate people so

that they use the health care service that is available. The health care workers said that they had to be able to go to the villages to offer service but also to educate people. One nurse said:

> [t]o sensibilize people so that they understand better. So they come for vaccinations. That is our biggest worries. Because we talk and we talk, some understand but others do not. I do not know why. We go to the village and we sit for a long time. And we do not even see one mother come for a vaccination. You go here and you go in the villages and you get dismotivated. You sit where you are supposed to sit and they do not come from their houses to see you. Only a few come.

One nurse stated: “It is difficult to go to the villages. Sometimes you go there and we have some posts where they come to. It is difficult to call the women, some are in their houses and do not go out. There are few people that go to vaccinations. That is very tiring for us”. Despite this statement almost all the health care workers agreed that most mothers are positive towards western health care and bring their children to receive vaccinations and other health care services when they have the chance. Furthermore, most health care workers agree that there are increasingly fewer people who do not believe in and use western health care, and rely totally on traditional health care.

Another nurse said that health education and vaccinations were on the government´s agenda to reduce the mortality rate:

> That is why the state is doing the vaccinations. We do health education, so we can sensibilize the mothers. When they have a sick child they come with him here. We also have the health units in the villages so that they can evacuate children and pregnant women to hospital quickly when it is needed, so we can reduce the mortality rate.

There was a certain frustration among the health workers because they wanted to be able to do more but did not have the resources. One nurse said:

> I want to see a change but we do not have the possibility. You work as is necessary for the government. They make you do extra work. This is a big hospital, they should have another health centre to do extra activities because if we had health centre parallel to the hospital they could help with the activities in the sanitary area of Mansoa.

5.2.4.6 Lack of health care workers

The health workers also mentioned the fact that there is a lack of health care workers in Guinea-Bissau. According the research of Murphy (2008), the health system in Guinea-Bissau is severely understaffed and health care workers lack sufficient training and incentives to provide high-quality care (WHO, 2010). One nurse when asked about staff said: "That is a very big problem here. We have a lack of nurses, now we only have four nurses that are in service". The nurses also talked about the need for better educated nurses. One nurse said:

> If we had one general nurse (three years of training) and one assistant nurse (two years of training) it could work well. I think that only with that things would work well, would change. Maybe if the government does a little thing it will improve. There are more assistant nurses than general ones.

In Guinea-Bissau, educational and training opportunities for health care workers are limited and supervision is poorly managed. The building that housed the national school of public health, which trains physicians, nurses, and technicians, was destroyed during the civil war. It has not been rebuilt due to lack of funding, and the school of public health has temporarily been relocated to the national university, which is not furnished with the equipment or materials necessary for a medical education (Murphy, 2008).

The nurses also said that they do not get paid for working longer than their regular hours, which were mostly from 8-16. But they also all agreed that they are

expected to work more. One nurse said: “They do not pay us when we go outside of town and they do not pay us when we do extra work in the night”. When I asked if they had to work extra she said: “We cannot not work, we have to help people that are sick”.

The health care workers all said that they always get paid now, after the new government took over. But they also agree they do not get paid well. The nurses, midwives and the laboratory technician I interviewed receive between 72.000-101.000 CFA a month (110-154 Euros). The better paid nurses were the ones who were head nurses and administrators.

5.2.5 What can be done to lower the child mortality rate?

The health care workers were all concerned about the high level of child mortality and they all argued that proper health care service, health education and getting the people to attend health care services timely were crucial to lower the child mortality rates. One nurse explained: “In the villages I also try to sensibilize people but that is necessary to lower the mortality rate. Because when you go you do not just do one thing, you do everything. You can talk to them about going to the hospital when they are sick and you can explain many different illnesses”. Another stated: “Only that they would come to consultation. Then they would not die. The people that come to consultation they do not have a problem, it is the people that come late. If we can get them to come we can help them”.

Most of the health care workers also said that to reach people better, both with health care service and education, the village health units needed to function better. Einarsdóttir and Gunnlaugsson (2009) research in Guinea-Bissau concluded that about four fifths of the mothers and two thirds of the adult males interviewed stated the health post was valuable for them. Positive aspects of the health posts were short distance to seek health care, the health care workers cured diseases, the low cost of the service, it gave respect to the village and the village health workers had better understanding of the needs of the villagers than other health staff.

A few health care workers said that improved preventive actions against malnutrition were needed, but according to research not much progress has been made regarding malnutrition (WHO, 2010). The catholic mission has nuns that run centres for malnourished children in Guinea-Bissau. However, one of the

nurses said: “We need activities for malnourished children … It is necessary for us to go to the villages and tell people with malnourished children to go to the catholic mission”. One nurse said:

> When we have a case of malnutrition we select the ones that are most severely malnourished. We tell them to go to the hospital in Mansoa, but sometimes the family refuses. In that case, another option is the Catholic mission that has a nutritional rehabilitation centre and if they do not want to go to Mansoa we send them there.

About half of the health care workers interviewed said they wanted to be able to offer the mothers that come with sick children food because that would encourage mothers to bring the children. Giving free food had been the practice before in some of the facilities but was not offered anymore at any of the facilities I visited. Malnutrition among children is a problem in Guinea-Bissau and an important influential factor in child mortality (WHO, 2010). According to one midwife some centres get food for mothers through the World Food Program (WFP). She explained: “That encourages mothers to bring their children”. Some of the mothers told me the same thing, that it would be nice to get at least food. Then they would have one less thing to worry about when they bring a child to a health care facility.

Vaccinations were also commonly named as one of the important factors in lowering the mortality rate among children and a few of the health care workers also named wanting to give bed nets to protect children from malaria. But not all the health facilities had bed nets to distribute at their facility.

All of the health care workers agreed that they wanted to be able to do more and that they lacked the proper facilities and resources to do their work better. They agreed that progress was being made in some areas. One of the nurses I interviewed explained that there was progress being made regarding malaria, with the tests being more available at health facilities. He said: “First, you have symptoms, sometimes you think it is malaria and now you can take a test. That is why the malaria incidence has gone down”. He also stated:

> Child mortality is very sad. It is not good when someone dies. We want to intensify our activities. Then it will be more dynamic, to our work. Our work will be more qualified. We want to have someone to work with us so they can help us so we can improve. If we do not have the materials we cannot work.

5.3 Health information from the Regional Health Board in Oio

The health registration at the health care facilities in Oio region seems to be satisfactory. All the hospitals and health centres in the region keep registration on vaccinations, consultations, tests and diagnosis made. They list all the people that come to the facility, what is done for them and if they pay. Then they have special forms that they fill out each month and send to the Regional Health Board in Mansoa. In all the health facilities I visited they conscientiously filled out these forms. Additionally, there are monthly meetings at the Regional Health Board when health information is turned in and where discussion on the work and current situation takes place.

5.3.1 New consultations among < 1 year and 1-4 year olds

By reviewing the monthly sheets from hospitals and health centres in Oio, from the Regional Health Board, I put together charts to show the number of new consults with children, in the age groups < 1 year old and 1-4 year olds, in 2008. The following charts show these numbers in the health facilities I visited: the hospitals in Bissora, Farim and Mansoa, and the health centre in Nhacra (Figure 3-6).

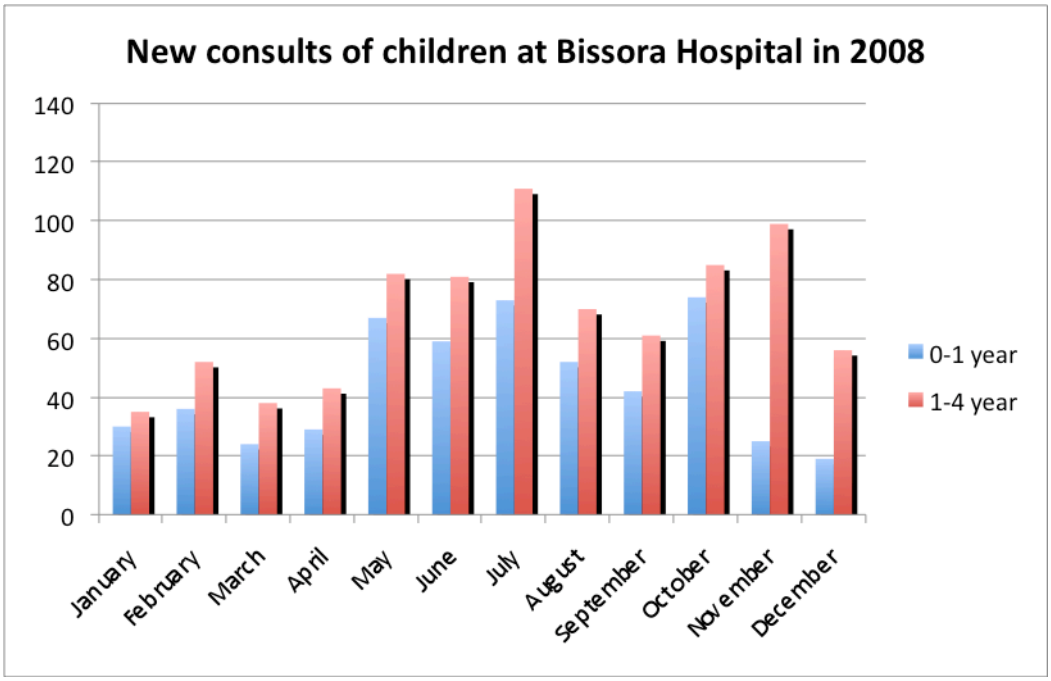

Figure 3. Number of new consults of children in Bissora Hospital by age and month. Data from the Regional Health Board in Oio for the year 2008.

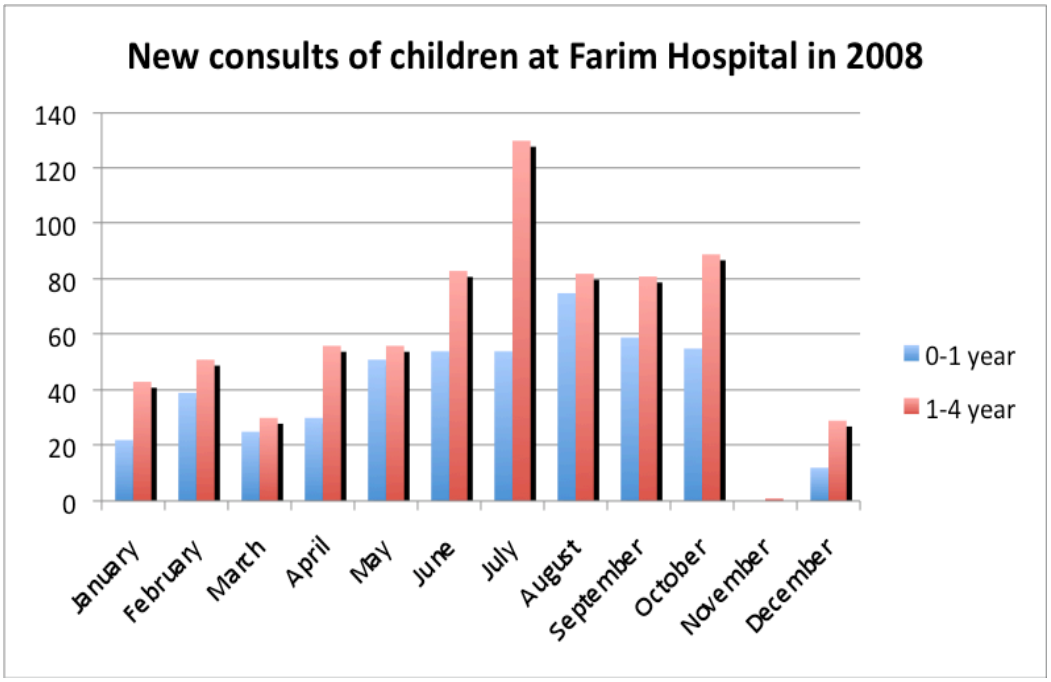

Figure 4. Number of new consults of children in Farim Hospital by age and month. Data from the Regional Health Board in Oio from the year 2008.

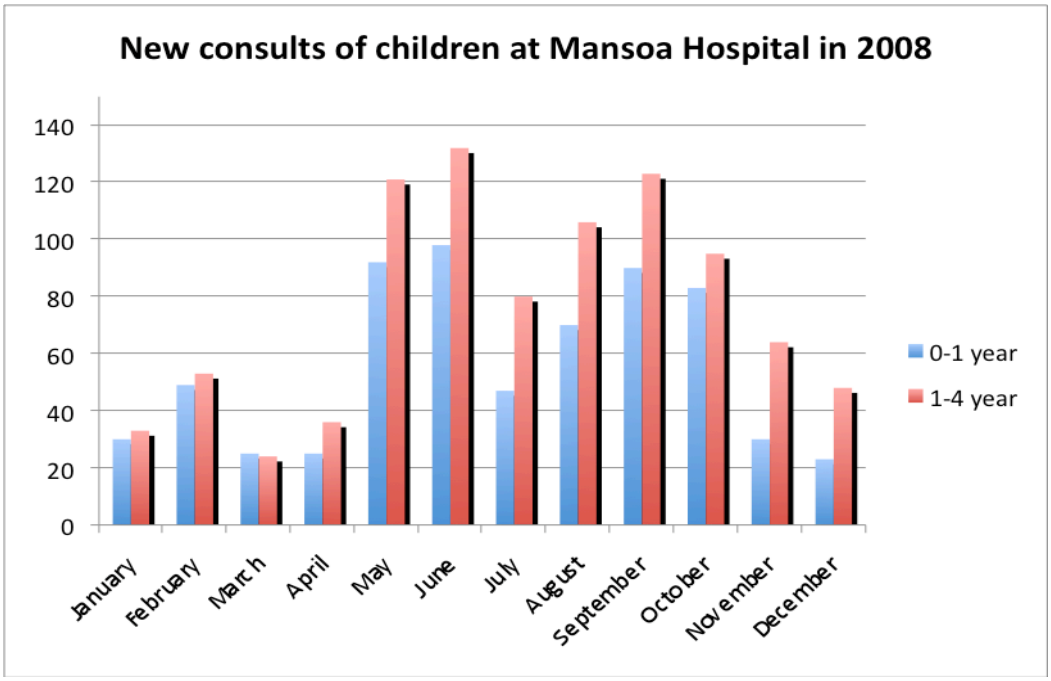

Figure 5. Number of new consults of children in Mansoa Hospital by age and month. Data from the Regional Health Board in Oio for the year 2008.

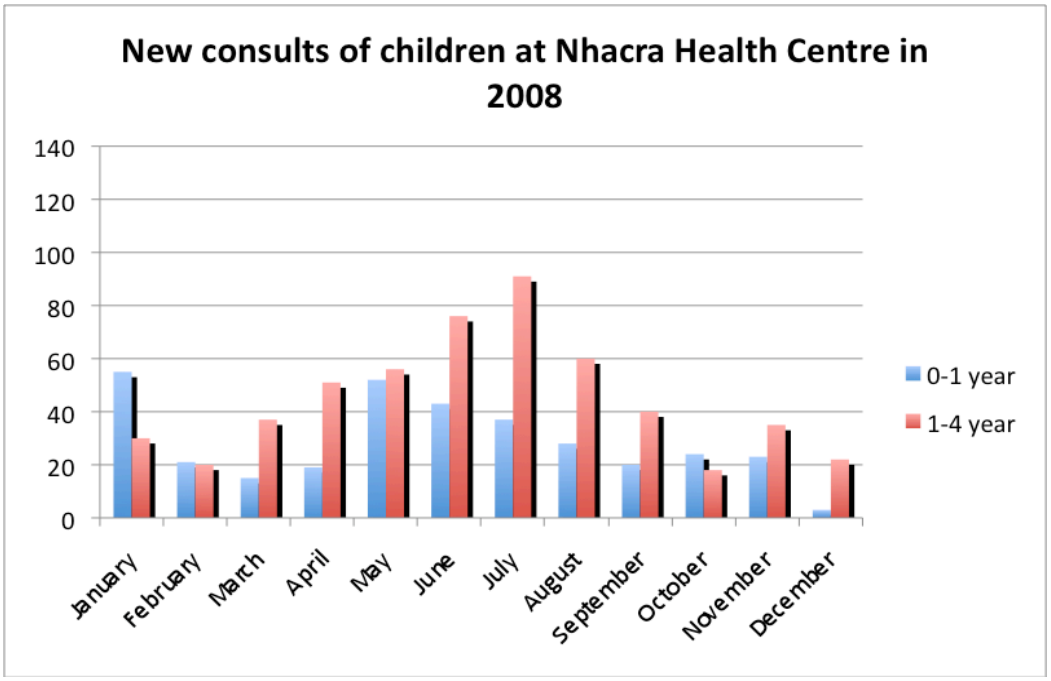

Figure 6. Number of new consults of children in Nhacra health centre by age and month. Data from the Regional Health Board in Oio for the year 2008.

The information on the number of new consults indicates that there are most consults among children at the beginning of the rainy season, which lasts from June to September. There is a clear indication of increased number of new consultations in June and July and also in September and October, except in Nhacra, where there is a peak of consultations only in June to July (Figure 3-6).

According to Kofoed (2006) the burden of malaria is highest in the beginning of the rainy season and shortly after the rainy season ends, in October. Malaria is one of the main causes of child mortality in Guinea-Bissau but according to WHO (2010) it causes 18% of child deaths in Guinea-Bissau. The results thus imply that the reason for increased number of consults in June to July and September to October is because of more cases of malaria among children.

5.3.2 Vaccinations among children under 1 year old

I also reviewed and put together charts with information about vaccinations among children under one year of age in 2008 at the health care facilities I visited. According to the data I retrieved there where no data on vaccinations for children in the ages 1-4 year old. The following charts show these numbers in the health care facilities I visited, i.e. the hospitals in Bissora, Farim and Mansoa, and the health centre in Nhacra (Figure 7-10).

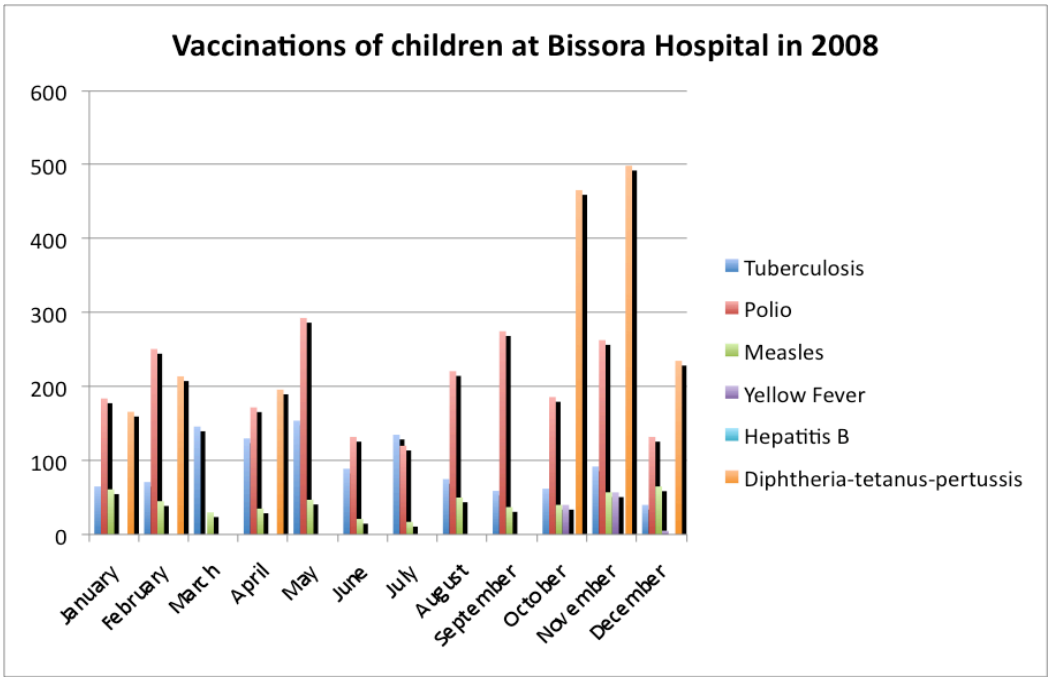

Figure 7. Vaccinations of children < 1 year of age at Bissora Hospital by month. Data from the Regional Health Board in Oio for the year 2008.

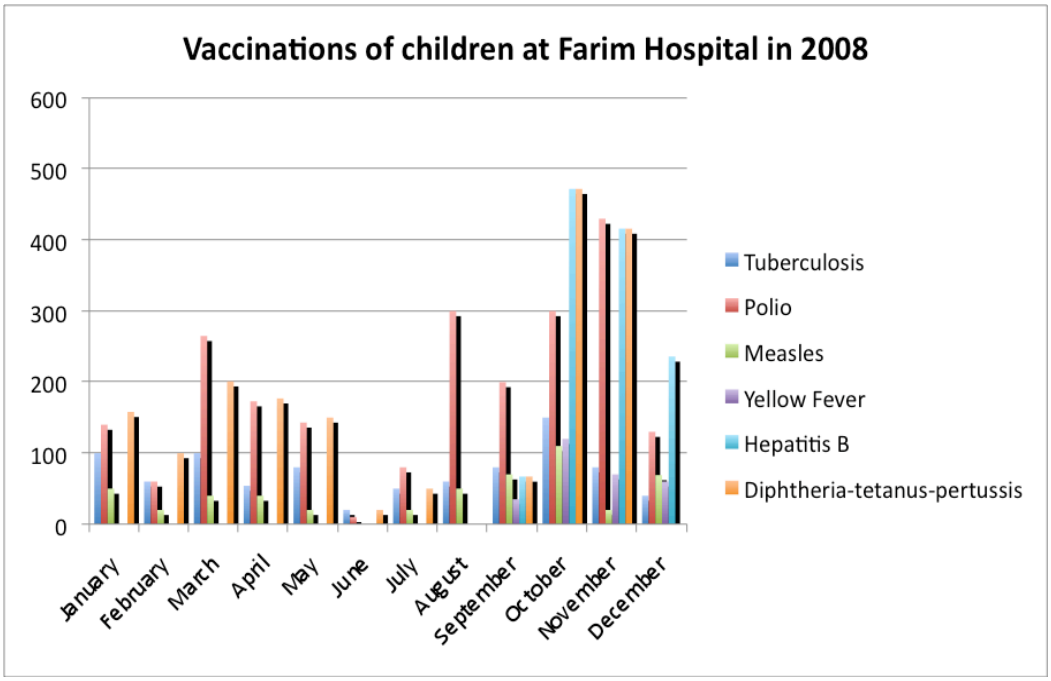

Figure 8. Vaccinations of children < 1 year of age at Farim Hospital by month. Data from the Regional Health Board in Oio for the year 2008.

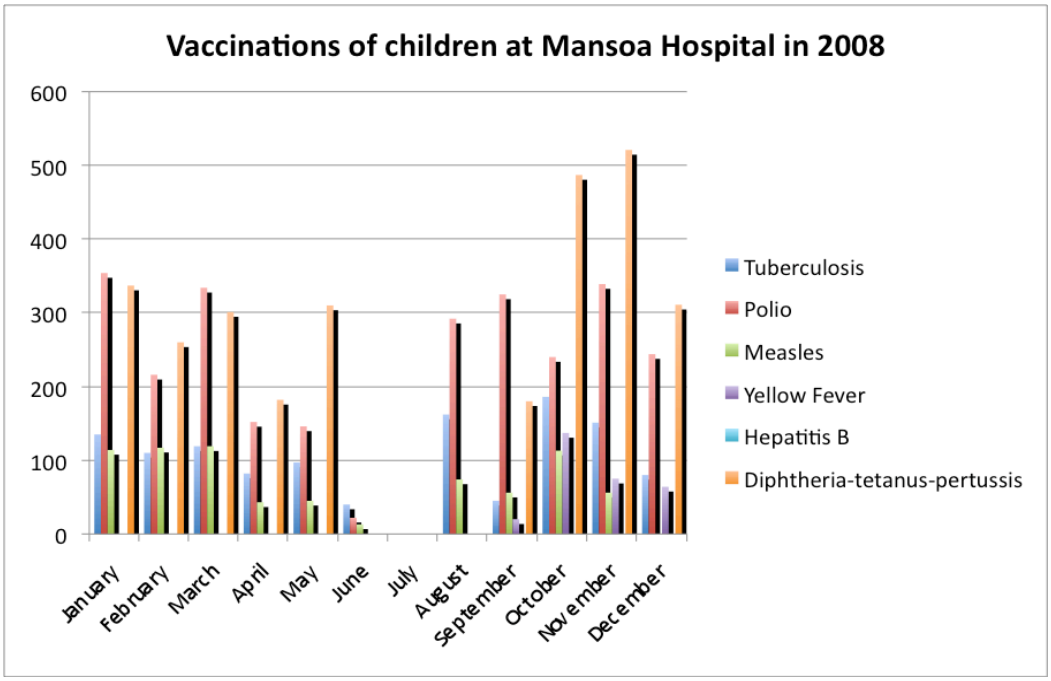

Figure 9. Vaccinations of children < 1 year of age at Mansoa Hospital by month. Data from the Regional Health Board in Oio for the year 2008.

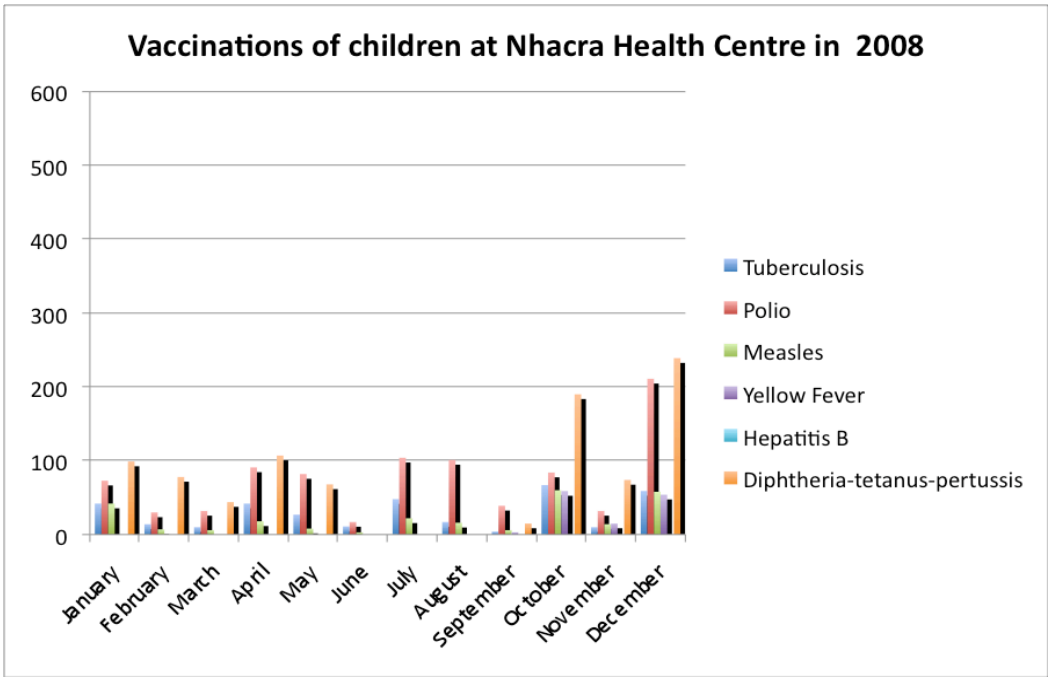

Figure 10. Vaccinations of children < 1 year of age at Mansoa Hospital by month. Data from the Regional Heal the Board in Oio for the year 2008.

According to information regarding vaccinations among < 1 year old children there is much variation in vaccinations and not a clear pattern in number of vaccinations when the facilities are compared (Figure 7-10). At the hospitals (Figure 7-9) there seems to be a peak in number of vaccinations in March to May and October to November, although the peak in March to May is not as clear at the hospital in Farim (Figure 8). What can however affect these numbers and the difference is that sometimes there is a shortage of vaccine. In Mansoa, for instance, there were no vaccinations in July, according to the data. However, the data regarding consults shows that the hospital was open. The increase in the number of vaccinations in March to May, that is indicated in Bissora and Mansoa, and slightly in Farim and Nhacra, might be because the cashew harvest starts during that time, but is most intense in April and May. At the time of the cashew harvest, people have more money and are therefore more likely to be able to afford health care service and vaccinations. One nurse in my interviews even stated that people had more money during the cashew crop season and that during that time people were more likely to seek health care. The fact that lack of money is a common obstacle when it comes to seeking health care services for children is what the mothers and health care workers stated in the interviews. This gives support to how important factor poverty is and that it can be an obstacle when it comes to children receiving health care.

In this chapter I have outlined the results of my interviews with mothers and health care workers on child mortality and children's health care. I have also put forward health statistics on children's consultations and vaccinations.

In the next chapter I will discuss the findings of my research in the light of the theoretical background. Then, I present my conclusions on the findings of the thesis in the final chapter.

6 DISCUSSION

In this thesis I have presented the historical development of child mortality and global commitments made and the strategies put in place to improve the situation. I have also presented the findings of my interviews with mothers and health care workers, in Oio region, on child mortality and children´s health care. In addition, I have put forward health information regarding children from the Regional Health Board in Oio region, Guinea-Bissau. This I have done with the aim of trying to identify the social factors that contribute to the high child mortality rate that persists in the country.

During my fieldwork and research I found that Guinea-Bissau is very much affected by its poverty. Both the people, who struggle to provide for their families and the government, trying to provide proper primary health care, and other services to its people. It seems that poverty is at the core of all issues relating to child mortality.

The findings of my interviews are that poverty, lack of proper and accessible primary care health services, deficient transport and use of traditional medicine are the main factors that contribute to the child mortality rate in Guinea-Bissau. According to the health care workers I interviewed, it is very common that parents seek health care late for their children and both the health care workers and women stated that it is most commonly due to lack of money, but the health care workers stated that it can also be because people seek traditional medicine first. Most of the mothers I spoke with had waited 3-7 days before bringing their child to receive health care and they all said that it had been because they did not have money and had to raise money first. The women and health care workers explained to me that people need time to sell something or get a loan to pay for the health care services, and the additional cost of transport and drugs they might need. But that adds to the time delay. It also seems to be common that necessary health care treatment options are not available close to people's homes and/or the health care facility closest to their home might not be functional. This relates to the fact that transport is expensive and not always available.

According to the health care workers traditional medicine can be the cause of delay in care-seeking behaviour or people not seeking treatment at all. Some of the health care workers stated that it was an issue difficult to tackle because

traditional medicine is part of the culture of the Balanta. Although, the health care workers said that the issue of money was more common and use of health care was on the rise. Most of the women I spoke with used traditional medicine in some way or form but none said that they sought ceremonies. Of the women I spoke with one said that her child had gone to a ceremony at a djambaku, but it was his grandmother that had taken him there. Also, the grandmother I interviewed had gone to a ceremony with her children when they were younger but not now with her grandchildren. This suggests that it is more the older people who seek djambakus, but the younger people seek western health care and perhaps use the herbs, ointment and teas.

The late care-seeking behaviour has a significant importance because when people seek health care late it lets the illness progress, that can make the treatment more difficult and it might also be too late. For example, malaria is one of the main causes of child mortality (WHO, 2010) and malaria and fever was the most commonly named when mothers and health care workers were asked about most common illnesses and reasons for a child dying. The treatment for malaria is simple but when it is not treated soon it can get complicated and more difficult to treat.

According to Chinkhumba and Chibwana (2010), "responses of caregivers are pivotal and play a critical role in provision of medical care for children with fevers" (p. 520). They also found that in areas where malaria is an epidemic, in most cases, cases of fever were treated outside the formal health sector, either in the homes or the community. In most cases children with fever, in areas where malaria is an endemic, do not get prompt and effective anti-malarial treatment. They conclude that "numerous social, cultural and economic factors interact in complex ways and influence caregivers´ responses to children with fever" (p. 520). A study in Nigeria showed that high family socioeconomic status, and also high maternal education and high paternal education, were significantly associated with care-seeking behaviour within 24 hours of the onset of illness. Although, they also found, that illnesses characterised by fever have better care-seeking behaviour than for other illnesses (Ogunlesi and Olanrewaju, 2010).

Child mortality is an issue that should concern us all because it is a human rights issue and the international community has recognized it as such. In turn the international community has made promises to fight the U5MR, the most

important one being MDG 4. The fact that the main causes of child mortality are preventable with interventions, which are well known and commonly used in health care systems of the high-income countries, is promising. Therefore, it is safe to assume that improved and accessible health care with appropriate health care measures is the key to lower the U5MR but research shows that access and coverage of health care is much lower in low-income countries than in the high-income countries (WHO, 2010). In addition, despite the impressive progress made towards MDG 4, this progress has not been distributed evenly across the globe because in correlation with the widening gap between the rich and the poor in the world and difference in access to primary health care, progress in lowering the child mortality rate has been fast in high-income countries but slower, if any, in the low-income countries (UNICEF, 2009a). Most of the countries with the highest U5MR are in Sub-Saharan Africa, where most of the poorest countries in the world are.

Guinea-Bissau is one of the countries in Sub-Saharan Africa and it has one of the highest child mortality rates in the world, but according to numbers from 2008 195 children of every 1.000 live births, die in Guinea-Bissau (UNICEF, 2009a). Most commonly children in Guinea-Bissau die due to malaria, pneumonia, diarrhoea and complications related to birth. These are all causes that are preventable with proper health care measures and treatment. Despite the fact that there has been progress in lowering the U5MR in Guinea-Bissau, it has been slow. If the country keeps the same pace it will not reach MDG 4 (Black et al., 2010).

Many projects have proved to be effective in the fight against U5MR, like the many vaccination projects and bed net campaigns (Bryce et al., 2003; United Nations, 2008). There are also evidence-based projects that can be affective and do not require much cost. IMCI, for instance, has been proven to be successful in a low-income country setting but it trains and teaches community health workers how to classify and treat the most common illnesses. Since its introduction, multi-country evaluations of IMCI have showed benefits in health service quality and reductions in mortality and health costs (Bryce, Victora, Habicht, Black and Scherpbier, 2005b). According to the research by Armstrong Schellenberg et al. (2004) on IMCI in Tanzania, the introduction of facility-based IMCI was associated with improved quality of care. Over the first 2 years after IMCI was put

in place, the mortality rate was 13% lower in districts where IMCI had been implemented than in comparison districts, with a rate difference of 3.8 fewer deaths per 1000 child-years. They also found that more than twice as many children were checked for cough, diarrhoea, and fever in the IMCI facilities as in the comparison districts and sick children were 1.7 times more likely to be correctly classified in IMCI districts than in comparison districts. Additionally and interestingly, costs of children's health care with IMCI were similar to or lower than those managed without IMCI.

However, for low-income countries to be able to put such projects in place and effectively and efficiently maintain their function, funding is needed. In the case of Guinea-Bissau, the country has not been receiving much aid in recent years and aid flow has been uneven, especially since the war in 1998-1999. The need for aid in Guinea-Bissau is evident, but its human development index is one of the lowest in the world. However, because of policies put in place in the 1990s, that put conditions about governance and partnership for aid receivers, some of the countries that need aid the most, like Guinea-Bissau, have been left behind (Einarsdóttir, 2007). Research suggests that distribution of funds between countries has since then been uneven and also the distribution between different issues. The issue of child mortality has, for instance, seemingly not been getting the attentions it needs despite the fact that the health of women and children has evidently been getting more attention and the importance of primary health care is on the rise (Piva and Dodd, 2009; UNICEF, 2009a). Therefore, due to continuing political and economic instability, Guinea-Bissau is considered to be an undesirable candidate for partnership in aid. Because of this the government lacks funds and is not able to provide proper primary health care to its people (Murphy, 2008).

During my fieldwork I found that resources are scarce and the conditions of the health facilities in Guinea-Bissau are very basic. Guinea-Bissau does not have the funds and means to provide proper primary health care services. There is a lack of everything from proper housing, beds and skilled health care workers to proper equipment, medical supplies and drugs. There is also problem of access to electricity, running water and proper toilets. These are all things that are taken for granted in high-income countries and significantly impact child survival. This shortage is mostly because of chronic lack of funds. Research on the matter

(Murphy, 2008, Sachs, 2010), and my interviews with both the mothers and health care workers support this. Both the health care workers and mothers expressed a strong desire for a better and more accessible health care system and they identified that as the core factor to reducing U5MR in Guinea-Bissau. This is also supported by UNICEF (2009a) and WHO (2010).

What has made access to health care service even more difficult, in many African countries, is the practice of user-fees. Providing proper primary health care is a wide spread problem in Africa and in an effort to get funding for health care services user fees schemes were put in place over twenty years ago. Interestingly, the opinion that abolishing user fees is a key factor in creating a more accessible and better health care is on the rise (Evans and Etienne, 2010). The idea of abolishing user-fees is logical in a setting where poverty is one of the main reasons why children do not receive health care or receive it late. Some researchers (James et al., 2005) even claim that user-fees do not generate much revenue anyway so it should not cost much to abolish them. In addition, the reward would be so much more valuable and in line with international commitments, like the MDGs. The solution to get funding to provide health care in a low-income setting by user fees is in contradiction with one of the main problems in the low-income countries, i.e. that people cannot afford to pay for health care service.

Since the year 2000 National Demographic and Health Surveys (DHS) in different countries have increasingly included a set of questions to the main female member in each household about the extent of problems she faces in accessing health care. In all ten surveys, for which results have been published, the highest ranked problem was getting money for treatment, followed by distance to the facility and difficulty in getting transport (African Union and UN Economic Commission for Africa, 2005).

Interestingly, these factors, along with traditional medicine, are the factors that I found contribute to a high child mortality rate. The impact of poverty on children's survival is well known and an accepted fact (WHO, 2010; UNICEF, 2009a) and poverty has an MDG on its own (MDG 1). Furthermore, research and experience of the last decades shows that a good and accessible primary health care system that includes health education, vaccinations, prenatal care, birth assistance and has a good emergency care is essential for child survival (UNICEF,

2009a). The necessity of proper primary health care with proper health care resources, and educated health care workers has received increasingly more attention and more awareness. The Alma Ata Declaration and the MDGs are evidence of that. Even other related issues like education, equal rights and maternal health are receiving more attention and all of those issues have an MDG as well.

However, the issues of cultural beliefs and transport have not gotten the attention they need but those were factors commonly named in my interviews. Traditional medicine is widely used in Guinea-Bissau. According to Temudo (2009), who interviewed tha Balanta people in Guinea-Bissau, the Balanta rarely go to hospitals. In addition, she states that a leader of a new religious movement among the Balanta people, called N´hala, believes that witchcraft is an influential factor in use of health care of the Balanta (Callewaert, 2000). I did not find much research on how or if co-operation of traditional medicine and the western medicine is a possibility or even desirable. Nonetheless, health education and further research is necessary.

Studies have shown that caretaker´s lack of knowledge of danger signs of illnesses can contribute to child mortality (Ogunlesi et al., 2005). According to a study performed in Zambia (Sasaki et al., 2010), health education might improve care-seeking practices in the community. The study showed that the percentage of caregivers immediately seeking care from health professional for children with danger signs significantly increased from 56.1% to 65.8%, in a three-year follow-up. "Poor accessibility to health facilities was a significant barrier to care-seeking in a peri-urban area. However, when caregivers are properly educated about danger signs and appropriate responses through community-based intervention, this barrier can be overcome through behavioural change in caregivers" (p. 312).

Transport is an important factor when it comes to seeking health care in Guinea-Bissau and was commonly named in my interviews as well, among both the women and health care workers. However, the issue is not getting the attention it needs. In the report *Transport and the Millennium Development Goals* it is stated that an efficient transport system and transport service is critical if the MDGs are to be fulfilled (African Union and UN Economic Commission for Africa Both). They point out that it is especially important in Africa, which is a big continent with poor transport infrastructure and in addition the most affected

by poverty and child mortality. This is supported by Gunnlaugsson and Einarsdóttir (2009).

If proper and accessible primary health care was put in place, with health education, it could contribute to counteract all the factors I found contributory, i.e. accessible primary health care, transport, traditional medicine and poverty. In Guinea-Bissau village health units were constructed in an effort to make health care more accessible. The basic idea of village health units is good and very appropriate in a country with limited resources and lack of educated health care workers. People within the community are trained to identify common illnesses and provide common treatment resources. This is a practical way to provide health care in a low-income setting and it reaches people better in the rural communities in many ways. The access to health care is better, in that, it is closer and saves people the money and trouble of getting transport. Thus, people who might otherwise not be able to go or afford to seek receive health care have the chance to do so and they have the chance to do so sooner. Also, the person trained as a community health worker is a person from the community who probably understands the people and their conditions better and might therefore better be able to reach the people on a personal level. That makes the community health workers better equipped to reach people and even those who might otherwise not seek western health care.

The research of Einarsdóttir and Gunnlaugsson (2009) on village health units in Guinea-Bissau shows that people trusted the community health care workers and they could be a valuable help because the community health workers were able to reach people better at the community level. The health care workers I spoke with were all aware of the issue of reaching people and being able to provide health education. Most of them expressed the need and desire to be able to educate people and get them to use western health care and vaccinate their children. In addition, many of the health care workers and women specifically expressed that they thought that well functioning village health units would be affective in making health care more accessible in Guinea-Bissau. However, research of Einarsdóttir et al. (un-published manuscript) also shows that only 30 of 106 village health units were working in Guinea-Bissau in 2009. They also do not always have the resources and medicine they need, which means that people have to go further to receive health care. Both the mothers and health care workers

I spoke with expressed that the village health units are not functioning and that they saw it as an obstacle in regard to child survival.

However, what is promising is that my interviews, with both mothers and health care workers, suggests that people who have used the health care service are positive towards the services, they continue to use it and they want it to be more available. The health care workers seem to be willing to do their best and they see an increase in the use of health care. That said, everyone I interviewed, and my research, indicates that what is urgently needed to achieve further results in the fight against child mortality in Guinea-Bissau is funding.

7 CONCLUSION

The aim of this study was to explore the issue of child mortality globally and the commitments and actions to fight it, results of such actions and the support of the international community. In addition, to do fieldwork in Guinea-Bissau to examine the socioeconomic factors that can contribute to child mortality by interviewing mothers and health care workers.

The issue is complex and is connected to many different factors. One can say that all of the MDGs are inter-connected and addressing one goal has an impact on the other goals. Research shows that poverty is a core issue when it comes to health related issues, like child mortality. Eradicating extreme poverty and hunger, lowering maternal mortality, universal primary education, gender equality and eradication of HIV/AIDS and malaria, are all MDGs and all factors that affect the child mortality rate (UNICEF, 2009a). Therefore it is logical to tackle the MDGs as a whole. Likewise, the central message of the Alma Ata Declaration "is that progress in health depends on many factors: economics, education, nutrition health system, and culture and is closely linked to governance, social justice, and changes in other sectors" (Biai, 2010, p. 2). Therefore, considering the complexity and magnitude of the MDGs, and all the contributory factors, it would be naïve to maintain that there is one simple solution. Nonetheless, it all seems to stem from one main problem, lack of funds. Sachs (2010) argues that if promises of aid and funds to low-income countries were kept, MDG 4 would be attainable. International commitments and promises have been made but not kept. Still further, policies for allocation of aid have in recent years worked against countries, in particular so-called fragile states, which need aid the most.

The conclusion that I draw from my research is that despite lack of funds there is progress being made and awareness and importance of good and accessible primary health care seems to be widely recognized in Guinea-Bissau. It is promising that people who use the health care services seem to keep doing so and they want the services to be good and more accessible. What concerns me most is lack of resources and funds, of course, but also the malfunction of the village health units, that seem to be working less than they did. The village health units would be an effective way to give people better accessibility to health care

and in addition they would help make up for the shortage of health care professionals and the stress the hospitals are under. Both the health care workers and the women agreed that accessible health care services, in financial and logistic terms, were a key factor to reduce the U5MR and that functional village health units would contribute towards that goal. It seems that functional village health units would have a positive impact on all the social factors identified in my study that contribute to the high U5MR, i.e. poverty, transport, accessible health care service and use of traditional medicine.

According to WHO and UNICEF (2010, n.p.) "poorly functioning health infrastructure, inadequate numbers of health workers, slow adoption of evidence-based health policies and insufficient focus on quality of care are holding back progress in many countries." This applies to Guinea-Bissau and, as stated before, the most affected region, regarding child mortality, Sub-Saharan Africa only managed to reduce child mortality at an average annual rate of 1% from the years 1990-2006 (You et al., 2010). However, a double-digit reduction is required in each of the remaining years to meet MDG 4 in the year 2015. Now, 33 years after the Alma Ata declaration and 11 years after the MDGs were set, and with only four years to go, this is the reality. Therefore, accelerated effort is urgently needed if we are to reach MDG 4. If we keep the same pace as we have, we will not reach MDG 4.

The phrase, "think globally, act locally" comes to mind when contemplating the issue of child mortality. The issue desperately needs more attention on community level as well as on the global level. On the global level, the fight against child mortality needs the efforts of the international community to keep their commitments and improve their policies to not exclude countries in need. The mobilisation of resources and political will is necessary to defeat child mortality (Horton, 2006). On the local level, the governments in the affected countries need to work with aid agencies and make an effort to work against corruption and warfare, and create good governance and provide proper education and primary health care services. In addition, different approaches must be considered in different places and more attention should be paid to the role of cultural and care-seeking behaviour, when policies are being made for the management of primary health care interventions (Biai, 2010).

Today, there seems to be a growing momentum behind child survival. The focus on economic growth in development aid has started to shift towards health. Despite that it seems that the subject of child mortality is not getting the attention it merits. There are projects and approaches that have been proven to work, we know the main causes of child mortality and how to treat them. We need to build on that and approach each country at its level, work with their governments, create a "low-income country friendly" policies and last but not least, keep promises of aid that have been made. That way we can give each child the best possibility of survival, that they have the right to and deserve.

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