

Fertility and Poverty in Western and Coast Villages of Kenya.

Re-Examining the Impacts of Female Autonomy on Fertility, Child Mortality and Poverty

by

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Project Report January 2015



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Acknowledgement

We would like to acknowledge the financial support from the Norwegian Research Council (NRC) and the Hewlett Packard Foundation through Grant No. 199408/S50. This study was administered by the Department of Sociology and Political Science, NTNU in collaboration with Population Studies and Research Institute (PSRI), University of Nairobi and African Population and Health Research Center (APHRC).

The study team acknowledges the contribution of research assistants who supported data collection as well as staff of collaborating institutions who provided critical logistical and other forms of support. We are greatly indebted to the study participants: individual interviewees, Focus Group participants, and Key-informants in Bungoma and Kwale who shared their experiences with us.

Finally, we want to thank local administrations and community leaders of visited places for supporting this project and assisting when necessary.

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Report Citation

An-Magritt Jensen, Anne A. Khasakhala, George Odwe and Salome Wawire (2015):

Fertility and Poverty in Western and Coast Villages of Kenya.

Project Report.

Published:

<http://psri.uonbi.ac.ke/> and <http://www.svt.ntnu.no/iss/an-magritt.jensen/card/Publications.html>

Foreword

This project is a follow-up from previous case studies in Bungoma 1988 and Kwale 1990. At the time there was no plan to repeat these case studies. Nevertheless the fertility development in Kenya, and the particular ways in which fertility changed in the two areas motivated a second round of case studies in 2011. During the first round the research team consisted of late Dr. Magdallen N. Juma in Bungoma and Dr. Anne A. Khasakhala in Kwale, together with Dr. An-Magritt Jensen (project leader).

With the follow-up Dr. Anne A. Khasakhala, Population Studies and Research Institute (PSRI) at University of Nairobi again joined the project, which was very important to keep continuity. In addition, the research team was expanded. George Odwe was recruited and financed as PhD-candidate at the PSRI. His thesis *Fertility and household poverty in Kenya: A comparative analysis of Coast and Western Provinces* was accepted for the PhD-degree award at the convocation held on December 5th 2014. In the thesis information from the case studies are expanded by statistical analyses of data from KDHS from 1989 to 2008/09. Finally, Dr. Salome N. Wawire was recruited as post.doc at African Health and Population Research Centre (APHRC). The full research team has participated in the fieldwork.

The project was financed by The Research Council of Norway and the Hewlett Foundation. Grant no. 199408/S50. Project leader: An-Magritt Jensen.

List of Acronyms

AIDS-	Acquired Immunity Deficiency Syndrome
CBS	Central Bureau of Statistics
CPR-	Contraceptive Prevalence Rate
DHS-	Demographic and Health Survey
FGD-	Focus Group Discussion
GoK	Government of Kenya
HIV-	Human Immunodeficiency Virus
IDI-	In-depth Interviews
IMR-	Infant Mortality Rate
KCSE-	Kenya Certificate of Secondary Examination
KDHS-	Kenya Demographic and Health Survey
KII-	Key Informant Interviews
KNBS-	Kenya National Bureau of Statistics
TFR-	Total Fertility Rate
U5M-	Under Five Mortality
KIHBS -	The Kenya Integrated Household Budget Survey
PSRI-	Population Studies and Research Institute
APHRC-	African Population and Health Research Center

Executive Summary

The *Fertility and Poverty-project* examined fertility changes in Western and Coast Regions over a twenty-year period (1988-2011). Initially the fertility level was very high in Western and relatively low in Coast while a substantial decline followed by a stall took place in Western while in Coast only a modest decline has taken place. Both regions are now in the upper end of the fertility range. These two regions provide insights into regional variations in the Kenyan fertility stall. The Fertility and Poverty-project combines case studies in rural villages with KDHS-data for Western and Coast. Emphasis is given to examining linkages impacting fertility such as poverty, child mortality and gender relations.

The case studies included personal interviews with women and men in rural villages about twenty years apart. The first round took place in 1988 (Bungoma, Western) and 1990 (Kwale, Coast), and the second round took place in both areas in 2011. In Bungoma universal marriages and polygamy pushed fertility up, while in Kwale unstable marriages and reproductive health problems suppressed fertility. Child deaths were associated with higher fertility in both areas. Twenty years later, in 2011, poverty was manifest in the study villages. Despite more education, formal employment and stable income were very limited, child mortality remained high and polygyny prevailed. Gender relations were strained, and particularly so in Bungoma. In Kwale women had gained some access to economic resources.

The analyses from the KDHS data revealed that the initial fertility decline continued among Non-poor women over the entire period (1989 – 2008/09) but not among the Poor. In Western the decline stalled while in Coast a fertility increase (particularly among the youngest women) occurred. Furthermore, poverty, child mortality and fertility are interlinked.

Both the case studies and the analyses of KDHS-data found that poverty and child mortality were reinforcing forces pushing fertility up. However, people saw no link between poverty and the number of children in a family. To them, poverty was caused by lack of income and scarcity of land, but not from having many children. To women children were a means to gain resources and security, while to men they were a source of pride and a means to demonstrate power in the absence of employment and income. In conclusion the project finds that poverty is a key to understanding the fertility stall.

1.0 Background and Rationale

Over the last three decades, fertility has dropped below the replacement level in an increasing number of countries. Lutz and his colleague have observed that ‘birth rates have been on the decline in virtually all countries of the world’ (2006: 168). Increasing empowerment of women mainly due to better education and access to modern family planning, are central to explaining this development. Alternatively, some studies have attributed the change to a global economic system which is making children more costly (Caldwell and Schindlmayr, 2004). Whether this has been influenced by the changing role of women or the global economic system, fertility decline has reached a climax and as observed by Wattenberg (2004: 149), ‘Never have birth rates and fertility rates fallen so far, so fast, so low, for so long, in so many places, so surprisingly’. Nevertheless, in some countries fertility still remains high. Given the scope and magnitude of the global fertility decline, Kenya stands out as a particular case and little research at the household level is available to explain the continued high birth rates especially at regional levels.

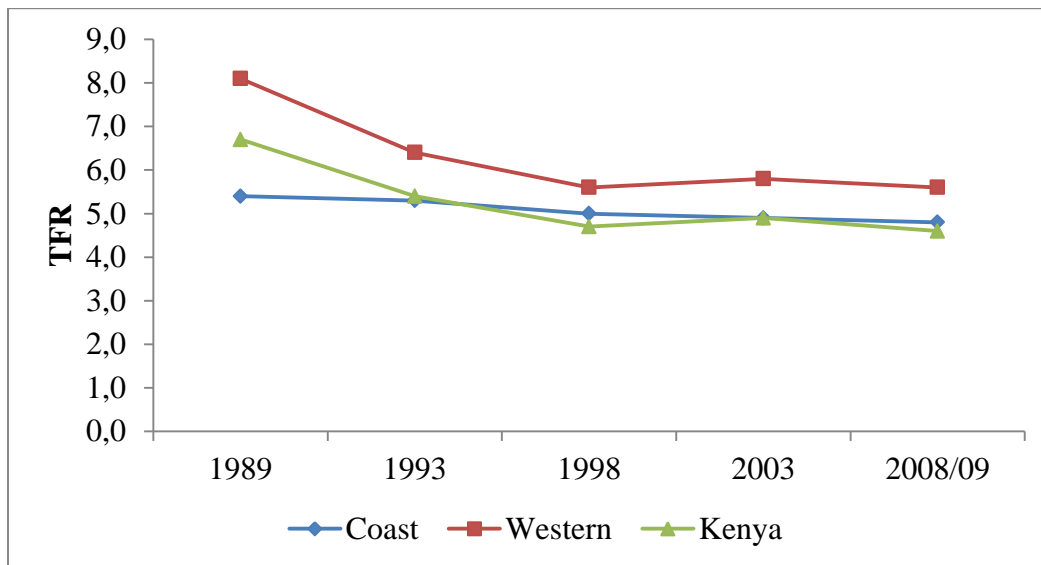
Kenya is one of the sub-Saharan African countries that has recorded fertility decline in the last decades at national level. Total fertility rate (TFR), declined from an estimated 8.1 children per woman in the late 1970s to 4.6 in 2008/09 (KNBS and IFC Macro, 2010). The decline in Kenya, which began in the mid-1980s, was projected to reach a TFR of 3.2 by 2015-2020 (CBS, et.al, 2004). However, like in other sub-Saharan countries, for example, Zimbabwe and Ghana, Kenya's fertility decline has slowed considerably since then. By 1998, the rapid decline observed earlier began to slow down, and by 2003 the decline in fertility had been reversed to a rate of 4.9, declining modestly to 4.6 by 2008/09 (CBS, et.al, 2004; KNBS and IFC Macro, 2010).

The factors associated with the phenomenon of high level of fertility stall in a number of sub-Saharan African countries have drawn attention of a number of researchers. For instance, Bongaarts (2006) found that the stall was caused by lack of socio-economic progress while Shapiro and Gebreselassie (2008) confirmed these findings. In a global perspective the high levels of the stall is unique for the region (Bankole and Audam, 2009). While fertility decline is observed countrywide, there are indications that it is not happening at the same rate and regional

differences are substantial (Blacker, 2002). Two regions, Western and Coast provinces¹ capture this variation.

According to Kenya Demographic and Health Survey reports, Western Province which is predominantly Christian had initially a sharp fertility decline from 8.1 in 1989 to 6.7 in 1993 but this came to a halt by the end of the 1990’s. Indeed fertility increased slightly to 5.8 in 2003 from 5.6 in 1993. By contrast, little change has taken place in Coast Province which is predominantly Muslim. Fertility trends in the two provinces indicate that there has been a stall and yet fertility levels remain higher than the national average of 4.6 children per woman. Figure 1 presents fertility trends between 1989 and 2008/9 in Coast and Western provinces.

Figure 1: Trends in TFR, Coast, Western and Kenya



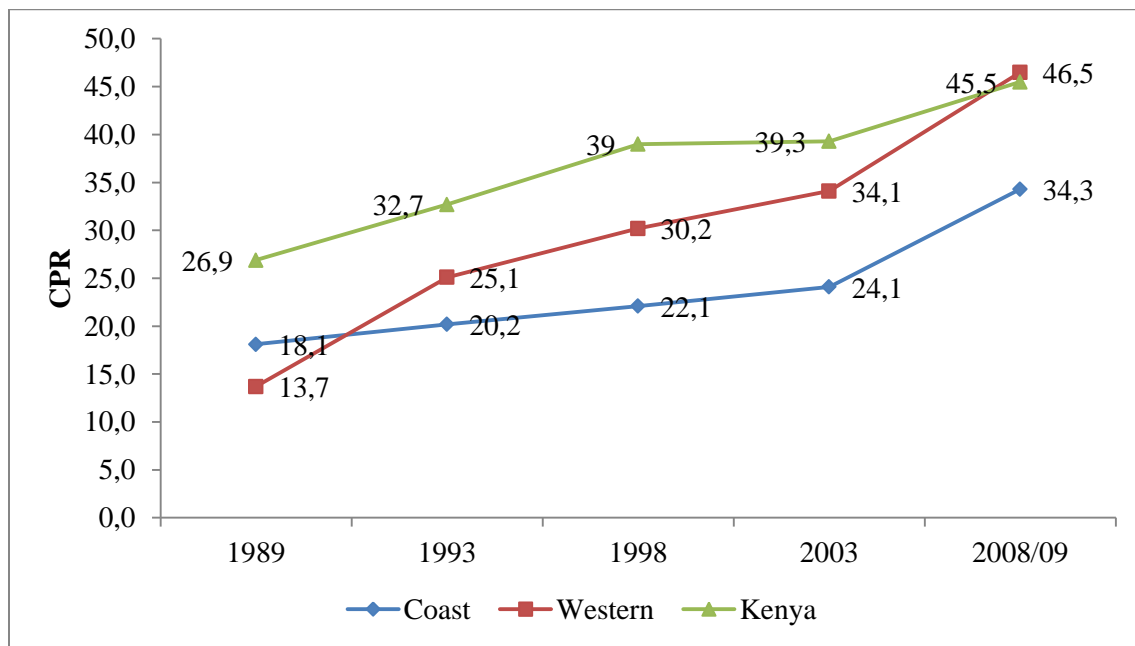
Source: KDHS reports

The dramatic fertility declines in the 1980’s and early 1990’s was due, in part, to increased acceptability and use of contraceptives (Kelley and Nobbe 1990; Brass 1993). At National level, contraceptive prevalence rate (CPR) for all methods increased from single digits in the 1970s to 39 percent by 1998 (NCPD et al., 1993 and 1999; and CBS et al., 2003). However, during the

¹Kenya was divided into eight administrative units known as provinces before the constitution of Kenya 2010, came into force. The first schedule of the Constitution of Kenya 2010 replaced the eight provinces with a system of 47 Counties. This study used data files of 1989, 1993, 1998, 2003 and 2008-09 Kenya Demographic and Health Survey (KDHS) which were only available at the national and provincial level.

stall in fertility decline, CPR had also plateau (Figure 2). The 2008/09 KDHS reported a CPR of 46 percent. Regional differentials in CPR are stark. Western Province show CPR trend that follows the national pattern, however, the CPR in Coast province remains low at 34 percent in 2008/09.

Figure 2: Trends in Contraceptive Use among Currently Married Women 1989-2008/9



Source: KDHS Reports

In documenting the causes of fertility stall, the impact of child mortality has also been examined. Westoff and Cross (2006) and Shapiro and Gebreselassie (2008) supported a causal link between increase in infant and child mortality, mainly due to HIV/AIDS, and fertility stall. According to Cleland (2001), an early child death truncates breastfeeding and as such allows an early return to ovulation and a shortened birth interval. Preston (1978 cited in Cleland 2001) observed that parents who had lost a child were only 20-30 percent more likely to proceed to the next birth.

Nationally, infant mortality which is an indicator to socio-economic development has dropped from 59 deaths per 1000 in 1989 to 52 per 1000 births in 2008/09. Although child mortality rates has decline in Coast and Western Province, the rates are still very high above the national rate as shown in Table 1. In 2008, IMR was 71 and 65 deaths per 1000 in Coast and Western province respectively (KNBS and IFC Macro, 2010).

Table 1: Trends in IMR and U5M

Year	IMR (Deaths per 1000 births)			U5M (Deaths per 1000 births)		
	Coast	Western	Kenya	Coast	Western	Kenya
1989	109.0	75.0	59.0	157.0	133.0	91.0
1993	68.0	63.0	63.0	108.0	109.0	93.0
1998	69.0	63.0	71.0	67.0	95.0	105.0
2003	78.0	79.0	75.0	116.0	144.0	133.0
2008/09	71.0	65.0	52.0	87.0	121.0	74.0

Source: KDHS 1989-2008/09

The role of gender systems² on fertility decline has also been recognized in literature (Mason, 2001). It is widely recognised that increase in investment in women in terms of human capital through education increases the status of women while also lowering fertility through a number of ways (Jejeebhoy, 1995). For example, educations affect fertility by delaying entry into first union. Data from KDHS shows that Median age at first marriage among women in Kenya increased by 2 years from 1989 to 2008/09 (KNBS and IFC Macro, 2010).

The present study is a follow-up of two case studies conducted about 20 years ago in Western and Coast Provinces (Jensen and Juma, 1989; Jensen and Khasakhala, 1993). The first case study was conducted in Bungoma, in 1988 while the second was conducted in Kwale, two years later. Both areas were predominantly rural, and poverty was widespread. Key findings from these studies were that fertility was high Bungoma combined with higher fertility desires. By contrast, women in Kwale had a relatively low number of children and fertility desires, however, majority of them were unable to accomplish their fertility desires due to reproductive health problems.

The initial studies also found that marital patterns differed substantially. In Bungoma, polygyny was prevalent and was mainly encouraged by men's desire for more children. Women in monogamous marriages declared that they had to give birth to many children in order to prevent their husbands from marrying additional wives. By contrast, in Kwale, polygyny was not common; however, there was marital instability. Every second woman was remarried, divorced, separated or 'stayed with a man'. The study found an interaction between fertility and marriage

²Mason (2001) defined gender systems as 'a set of beliefs and norms, common practices, and associated sanctions through which the meaning of being male and female and the rights and obligations of males and females of different ages and social statuses are defined.'

patterns. Many women had problems in getting pregnant and reported spontaneous miscarriages. Women's marital histories indicated that these problems were associated with unstable marriages, which seemed to have a long history in the community.

Evidence from anthropological studies supports these findings that revealed existence of two different sets of gender systems. For example, most women interviewed in Bungoma (Western Province) had a modest level of education, relatively stable marriages and had many children. Women in Kwale (Coast Province), by contrast, were less educated and described as 'backward, but independent' (Gerlach, 1963; Gomm, 1972; Gillette, 1978), however, the study found that they possessed some degree of autonomy which was lacking from women in Bungoma (Jensen, 1995).

Gender relations were important to understand the high fertility in Bungoma, but also the relative low fertility in Kwale (Jensen and Juma, 1989; Jensen and Khasakhala, 1993). It was clear from these two studies that there was a close association between marriage and gender systems; and fertility and reproductive health, and that the impact of marriage and gender systems is an important pathway to variations in fertility. Despite widespread poverty in both areas, households also benefited differently from having many children.

Following the findings from the initial case studies described above, the present study sought to understand fertility development through re-visiting the two rural areas in Western and Coast Provinces, Kenya. Since 1989, interesting fertility changes have taken place. Western Province had high fertility and a sharp fertility decline which came to a halt by the end of the 1990s. By contrast in Coast Province had lower fertility within the Kenyan context, and little change had taken place since (CBS, et al., 2004; KNBS and ICF Macro, 2010). While the two provinces marked the extremes of national variation in fertility levels (apart from Nairobi) by the end of the 1980s, today both areas represent the highest fertility levels. As such, the questions of the present study were: Why did fertility in Bungoma initially decline, then halt at a fairly high level? Why did fertility in Kwale remain stable only with a moderate decline? Attention is given to the linkages between poverty and fertility. These questions are approached through qualitative and quantitative methods. In his PhD-thesis Odwe (2014) employs quantitative analysis (KDHS) and finds that the fertility stall is concentrated among poor women in both Western and Coast, while

among non-poor women fertility continued to fall. Furthermore, child mortality pushes fertility up. Mechanisms of poverty and fertility linkages were further examined in qualitative analysis of the project. While the two original studies had the primary focus on women (although some men were also interviewed at that time) the present study includes both.

1.1 Study Objectives

Based on the results from the initial case studies, five (5) thematic areas were identified which formed the sub-projects under the current study. The project had five main objectives;

- i. Data from the first case studies were re-examined with a focus on ways in which female autonomy and fertility interacts with poverty in the household. Efforts were made to follow-up on how children of respondents in the first case studies did manage in their adult life in terms of education, occupation, fertility and marriage. The study also examined changes in demographic and economic development of the two areas since the 1990s.
- ii. Secondly, the study examines the impact of child mortality on fertility and poverty in Western and Coast Provinces based on Kenya demographic and Health survey data.
- iii. Thirdly, the study examined the relationship between fertility and poverty at the household level. Between 1989 and 2008/9 fertility declined rapidly in Western provinces then stalled while moderate decline occurred in Coast province under similar poverty and child mortality levels. The research examined the relationship between fertility and household poverty to establish the role of poverty on the stall in fertility decline in the recent past, especially during 1998-2003.
- iv. Fourth, the study explored the impact of gender systems in two different cultural and religious contexts, on fertility and poverty. The main issue here was to examine differences in fertility intentions among men and women and to understand whether changes in gender relations contributed to recent fertility development in Bungoma and Kwale.
- v. The ultimate objective is to synthesise findings from the above objectives in the national and international context.

1.2 Theoretical framework

Three theoretical ideas are essential to the present study. First, the theory of the demographic transition pointed to socio-economic development as being necessary to enhance people's motivation for having fewer children. Secondly, gender theories suggest that men and women have different ideas and levels of power in fertility matters. Thirdly, wealth flow theories point to the benefits and burdens of having many or few children and consider how education can change the direction of flow. Hence, three concepts from the theoretical debate have inspired this study: socio-economic development, gender systems and the value of children. The theoretical ideas are in accordance with the preconditions for fertility decline as formulated by Ansley Coale: 'ready, willing and able'. 'Ready' implies that having fewer children is seen as economically advantageous, 'willing' entails having fewer children becoming culturally acceptable, and 'able' involves the availability of measures to reduce births, that is, family planning (van de Kaa, 2003).

In the classic theory of the first demographic transition, as formulated by Frank Notestein ([1945]), three elements were seen as crucial for fertility decline: socio-economic development, increased survival and cultural modernization. He saw a demographic transition as being generated from broad social changes, such as rising levels of income, improved health, increasing education and rising hopes for the future. Improved survival of children has a central position in theories of fertility decline. Notestein (1953) and Kingsley Davis (1963) argued that mortality declines constitute both necessary and sufficient catalyst for fertility declines since more children have to be reared and educated and that available resources have to be shared among more siblings and would hence trigger fertility regulation. Perhaps the most influential model of fertility choice among economists is the economic theory of fertility offered by Becker and Barro (1988) who posited that fertility rates will initially rise as child mortality declines because average cost of raising surviving children is lowered. Others have pointed to responses to child loss such as replacement or hoarding in anticipation of future child loss (Cleland, 2001; Doepke, 2005). As a result, child mortality is a source to increase total fertility rate.

Initially birth control had no place in the theory, as it was claimed that 'lower fertility could only be reached after the long-term process of modernization' (Szreter, 1993: 670). However, less

than a decade later, Notestein realized that a decline in mortality without a subsequent decline in fertility would lead to a 'periodic Malthusian crisis of famine' (op. cit.), and they advocated accelerating the demographic transition through birth control. The 'demographic trap', as King (1990) called it, involved rapid population growth. King deemed Kenya to be one example of such a trap. Socio-economic development and family planning have represented core issues in population debates ever since. Central elements of the theory of the demographic transition have persisted, namely that once a transition had started it was 'largely irreversible and gained momentum' (Knodel and van de Walle, 1979: 232).

The theory of the demographic transition did not distinguish between the roles of women and men but during the 1980's many have emphasised the importance of gender in understanding fertility. Among them, Mason (1985) explored the need to direct attention to women as the once who bear children in order to understand why fertility varied and how change can be brought about. It is widely recognised that education increases the status of women while also lowering fertility (Jejeebhoy, 1995). However, taking measurements of women's empowerment and reproductive behaviour has been challenging (Cosio-Zavala, 2002). Furthermore, while 'gender' was initially understood as a matter of 'women' alone, attention is now increasingly turning to the importance of including men in understanding gender systems and the interactions between women and men (Dodoo, 1998; Mason, 2001). Male influence on fertility decisions cannot be ignored or captured via proxy information from the wife (Adamchak and Adebayo, 1987; Lasee and Becker, 1997; DeRose and Ezeh, 2005).

Caldwell (1982) argued the direction of the flow of wealth as a crucial element in understanding fertility. Where children represent an economic benefit (upward flow) to the family, he claimed that fertility is controlled by the older generations and men. With more education the direction of the flow was expected to reverse and fertility fall. Caldwell integrated a gender perspective in his theory and claimed that male power is produced by weak links between husband and wife which intensify higher levels of fertility. Caldwell's perspective is in agreement with studies in developing Countries (Bulatao and Lee, 1983) showing that fertility depends on the way people perceive children: either as a benefit or a liability.

Theoretically this project builds on concepts of female empowerment, gender systems and child mortality in assessing reproductive behaviour and its impact on poverty. The previous case studies demonstrated, on the one hand the necessity to adjust our definitions to the local contexts, but on the other hand also the need to locate some general mechanisms across contexts

1.3 Study Context

This section describes the context of the study focus which consisted of Bungoma County in Western Kenya and Kwale County in Coast. The context under which fertility dynamics operates is illustrated by several background factors. They include demographic, poverty, education and health.

Bungoma County

Bungoma County is located in Western Kenya along the border with Uganda. As at 2010, the County had 7 local authorities (Municipal Councils of Bungoma, Webuye and Kimilili, County Councils of Bungoma and Mt Elgon, and Town Councils of Sirisia and Malakisi). It covers an area of 3,032.2 sq. km with temperatures ranging from a minimum of 15 – 30 Degrees depending on the season. It has two rainy seasons with rainfall ranging from 1200 mm to 1800 mm per annum.

Population

The Population of the county is estimated at 1,375,063 comprising of 48 percent males and 52 percent female (GoK, 2009). The population density is 453.5 people per Km². It contributes 3.6 percent to the national population and has a growth rate of 4.3 percent per annum. The county has a young population made of 46 percent in the age range 0 – 14 years; 51.4 percent aged 15 – 64 and only 2.3 percent aged 65+.

Poverty

A household is defined poor if it cannot attain the recommended daily food energy intake of 2,250 calories per adult. According to the Kenya Integrated Household Budget Survey (KIHBS) report (2005/6) about 53 percent of the population in Bungoma live below poverty line. This is

above the national average of 46percent. Causes of poverty in Bungoma County are many and they vary from HIV/AIDs, unemployment, squatter/landlessness, to illiteracy. The region is characterized by low incomes, high child mortality and dependency ratio.

Economy

Agriculture is the main economic activity in the county with sugar cane and maize farming being the major crops grown and accounting for part of the income generated. Other economic activities revolve around Webuye Pan Paper Mills, Nzoia Sugar Factory, BAT Malakisi and Mastermind tobacco, and commercial businesses. Other crops produced in the county include Coffee, Tobacco, Bananas and Sweet Potatoes.

Education

In terms of education, Bungoma County has 804 Primary schools, 207 Secondary schools and 40 Tertiary institutions as at 2007. Total primary school enrolment was 400,407. Based on the 2009 population and housing census, only 21 percent of Bungoma County residents have secondary education or above, 61 percent of residents have only a primary level of education while 18 percent of residents have no formal education. Other important information is as follows: Primary Teacher to Pupil Ratio: 1:50 (Public Schools); secondary: Total Enrolment (41,310); Teacher to Pupil Ratio: 1: 29 (Public Schools).

Health and Water

Bungoma County has 94 public, 18 faith-based, 4 non-governmental and 28 private health facilities that are spread all over the county. In terms of health personnel, the doctor to patient ratio is 4:100,000. The most prevalent diseases in the district are Malaria, Acute Respiratory Infections and skin infections. A total of 72 percent of residents in Bungoma County have access to improved source of water³ and use improved sanitation, while the rest use unimproved source of water and sanitation.

³Improved sources of water comprise of protected spring, protected well, borehole, piped into dwelling, piped and rain water collection while unimproved sources include pond, dam, lake, stream/river, unprotected spring, unprotected well, jabia, water vendor and others.

Kwale County

The county is located in South Coast of Kenya, it borders the Republic of Tanzania to the South West, and the following Counties; TaitaTaveta to the West and North West, Kilifi to the North and North East, Mombasa to the East, and the Indian Ocean to the East and South East. It covers an area of 8,270.2 Sq. Km². The average temperature is 24.2°C and rainfall amounts range between 400mm and 1,680mm per annum.

Population

The population of the county has been estimated at 649,931 (Male – 49 percent, Female – 51 percent) with a density of 79 people per Km² and contributes 1.7percent to the national population. Annual growth rate 2.6 percent. The county also has a young population as depicted by the following age distribution: 0-14 years (47.2 percent), 15-64 years (49.4 percent), 65+ years (3.4 percent). Kwale County has 3 districts (Kwale, Msambweni, Kinango) and 2 Local authorities (Kwale Town Council and Kwale County Council).

Poverty

One of the major challenges facing the county is the persistent and increasing incidence of poverty. According to the Kenya Integrated Household Budget Survey (KIHBS) report (2005/6) about 72 percent of the populations in Kwale live below poverty line-one of the highest in the country. About 31.77percent of adults in this county live below food poverty (Inability to afford or access healthy diet) level with 0.23percent below absolute poverty and 26.2percent below hard core poverty⁴. Kinango Constituency is among the 5 poorest constituencies in the country ranking 207 out 210. There are many causes of poverty in the county which include the following: Poor infrastructure development; low agricultural production due to land tenure problems; poor and undeveloped agricultural marketing; poor agro-industry base; vagaries of nature of droughts and flood; high population dependency ratio.

⁴http://www.sustainweb.org/foodaccess/what_is_food_poverty/

Economy

Land ownership is also another problem facing the county where most land owners do not have title deeds. In addition, there is a large proportion of the population without land while others are living as squatters in their own ancestral land after grabbing/allocation hence farmers are not keen on developing their land (which would increase efficiency and production) due to fear of losing their investment. Among other farm products, Kwale produces oranges, pawpaws, mangos, bixa, coconuts, a variety of vegetables and cereals.

Health and Water

Malaria and HIV/AIDS are major killer diseases in the area while, tuberculosis (TB), tract system and skin diseases are widespread. Health in Kwale is strongly related to the water supply. The poor quality and access to clean water has been linked to the high level of child mortality. Less than a half (47%) of households use improved sources of water, with the rest relying on unimproved sources and only 30 percent of residents use improved sanitation, while the rest use unimproved sanitation.

Education

Kwale County has 349 primary and 41 public secondary schools but pupil enrolment is low with 163,772 pupils in primary schools. The county has a low primary-secondary transition rate - about 52 per cent while only about five per cent of the Kenya Certificate of Secondary Examination (KCSE) candidates proceed to university. About 70.5 per cent of the population in Kwale County are primary education graduates while only 6.3 per cent are secondary school leavers. Only 64.8 per cent of the 5-18 year age groups attend school compared to the national average of 70.9 per cent (KNBS, 2010).

Study Sites

In Bungoma, the study was done in Muchi and Makuselwa, both of which are sub-locations that represent a different economic system. Muchi is an area that represents a cash crop economy as the population there is highly dependent on sugarcane as a source of income. On the other hand, Makuselwa is characterized by a subsistence economy, where most of the population owns small

pieces of land and depend on subsistence farming for food and income. In Kwale, the study was done in Kibundani and Mtambwe. Kibundani is a semi-urban setting where residents live close together and depend on small businesses and tourism to earn a living. Mtambwe is a rural sub-location, where the mainstay is farming of subsistence crops.

2.0 Data and Methods

This paper is part of a larger study for which design included the use of quantitative secondary data, mainly from the Kenya DHS, as well as qualitative data collected from locations in Bungoma, Western Kenya, and Kwale, Coastal Kenya. According to the study design, Kenya DHS data are to be used to answer questions relating to the linkages between fertility, family planning, child mortality and poverty. Qualitative tools were used to capture information showing change over time with regards to gender systems, fertility and poverty.

In Western Kenya, the study was done in two sub-locations in Webuye, a district in Bungoma County. The two sub-locations were Muchi and Makuselwa, each of which represents a different economic system. Muchi represents a cash crop economy as the population there is highly dependent on sugarcane farming as a source of income. Makuselwa is characterized by a subsistence economy, where most of the population owns relatively small pieces of land and depends on subsistence farming for food and income. The predominant ethnic group in the two sub-locations is Bukusu, though there are a notable proportion of Tachoni people in Makuselwa. In Coastal Kenya, the study was also done in two sub-locations in Msambweni district in Kwale County. Each sub-location represented a different economic system. Kibundani is a semi-urban setting where residents live close together and depend on small businesses, fishing and tourism to earn a living. Mtambwe is located in the rural area, where the mainstay is subsistence farming and fishing.

Before fieldwork commenced, the team had a pre-fieldwork trip to the study areas. During this visit, the study team made contact with the local government and community leadership and identified the areas where the previous studies were done. This was necessary because there were many physical and administrative changes that had occurred since the last studies in 1988/1990. The boundaries and government administrative areas had since significantly changed, and there

was need to update these changes with regards to our study area. It was also during this visit that we set up a network of potential field assistants to help with identification and mobilization of respondents, as per the design of the study. Also, with the help of the government and community leadership, the team identified potential Research Assistants, all residents of the study areas, who would assist in conducting in-depth interviews whenever necessary. This would mostly be in instances where there was a language barrier or cultural inappropriateness for the research team to conduct the interviews. These Research Assistants were later interviewed and a selection of six and five Research Assistants was selected in Bungoma and Kwale, respectively. Training workshops for data collection for research assistants were carried out in both areas. There were also two transcribers selected in each of the two Counties.

Qualitative data were collected through in-depth interviews (IDIs); key informant interviews (KIIs) and focus group discussions (FGDs) in Western and Coast. In addition, data based on field observations for the entire period of the study were collected and recorded as field notes in both study areas. Data were collected in two phases: Phase 1 involved IDIs and KIIs, while phase 2, which involved FGDs, was done 5 months later, and sought to fill gaps on issues that were not fully explored in phase 1.

Table 2: Summary of In-depth Interviews and Focus Group Discussion conducted In Bungoma and Kwale

	Bungoma				Kwale				Total
	Makuselwa		Muchi		Kibundani		Mtambwe		
	Men	Women	Men	Women	Men	Women	Men	Women	
In-depth Interviews									
18-34 years	6	17	3	14	3	12	2	13	70
35+ years	0	6	3	7	3	6	5	8	38
Total	6	23	6	21	6	18	7	21	108
Focus Group Discussions									
18-34 years	1	1	1	1	1	1	1	1	8
35+ years	1	1	1	1	1	1	1	1	8
Total	2	2	2	2	2	2	2	2	16

The IDI interviews were administered to women and men from the age of 18 and 68, divided in two age groups. There were two reasons for including informants above reproductive age. First, comparing perspectives and practices of the young and the old is essential in identifying intergenerational differences and changes in fertility perceptions and behaviors. Second, the previous studies focused on women in reproductive age, but we had to include them in this study as they were the link to new respondents as described below.

The respondents were selected through snowballing, where the initial respondent, referred to as the 'core' respondent, was a participant in the two aforementioned studies 20 years earlier. It was a difficult and frustrating process to identify and recruit core participants in both areas, as some were dead and others had moved out of the study areas. In Western, more than seven core participants were identified. It was more difficult to find core participants in Coast, as many of the women had relocated, probably due to re-marriage. Field notes were the basis for locating 'core' respondents, however information from the prior study was scanty as the women's names were not accurately recorded or had changed. In spite of this, a number of core participants were identified through a 'recall' method, where the only core participant we could identify provided information about other participants she remembered to have taken part in the study 20 years earlier. Using this information, a few others were found, and their identity was later verified through photographs that were taken with their consent for the prior study, twenty years earlier. The protocol for the study was approved by the Ethics committee of National Council for Science and Technology, and all participants, including FGD participants, provided informed consent prior to participating in the study.

Using references by core participants, women and men of reproductive age within their networks were recruited. The participants who were snowballed were mostly younger than, and related to, the core participants - daughters, sons, daughters-in-law, sons-in-law, grandchildren, nieces and nephews. In addition, a few participants were randomly selected when it was verified that they satisfied the criteria of belonging to the desired age group and had interesting views and experiences to share. This snowball approach was favored for this study because, by collecting views from core respondents from the previous studies, and also from the younger (current) cohort, it allowed the study to explore generational and temporal differences in attitudes towards

marriage and fertility. A summary of the background characteristics of the female IDI respondents is in the table below:

Table 3: IDIs Background Information

Age	Frequency (N =87)	Percent
18-27	25	28.7
28-37	24	27.6
38-47	15	17.2
48+	16	18.4
Missing	7	8.1
Education		
No education	8	9.2
Primary	41	58.6
Secondary +	24	17.5
Missing	4	4.6
Marital Status		
Married	70	80.5
Separated/ Divorced	8	9.2
Widowed	7	8.0
Single	2	2.3

Eight focus group discussions in each area were held with married and unmarried women and men (see table 2). The issues discussed included perspectives on marriage patterns and practices, gender roles and fertility desires and outcomes and perceptions of poverty. Participants were selected on the basis of their age and, for women, status as having ever given birth. The selection process was done with the help of community mobilizers who were familiar with the discussants and their fertility history. The discussions were held in Bukusu in Bungoma and KiDigo and KiSwahili in Kwale, and moderated by a research assistant who was duly trained in FGD moderation, as well as on the subject matter of the discussion. In the first phase of the study (which involved use of IDIs), it emerged that marriage patterns played a key role in the women's decision-making with regards to fertility desires and outcomes, and other household dynamics. The issue was therefore interrogated further in the follow-up phase (which involved use of FGDs), where discussions sought to reveal a more nuanced picture of the various marriage forms and patterns. The data excerpts presented in this report are from both phases of data collection.

The data were transcribed and coded using Atlas.ti qualitative software. The coding process captured emerging themes and also enabled us to continue to make discoveries about deeper realities in the data that were referenced by the codes. Data were analyzed using these themes to identify connections between the themes and the respondents.

2.1 Ethical Approval

The project was carried out within ethical guidelines for research in Norway and Kenya. Authorization from the Privacy Ombudsman for Research in Norway was obtained through Norwegian Social Science Data Service. In Kenya, necessary permit of research was obtained through Population Studies Research Institute (PSRI), as was also the case for the first case studies. Study participants were informed about the project and interviews were conducted in accordance with their informed consent. All members of the research team, including staff-members (among them transcribers, IT-personnel) signed a declaration of confidentiality.

3.0 Analysis and Findings

This section organizes and discusses, by thematic area, the study findings. The findings are based on the analysis from the four sub-projects research results as outlined in the objectives above.

3.1 Sub-project 1: Female Autonomy and Fertility in the Context of Poverty

An-Magritt Jensen⁵

Introduction

The two studies in the first round (1988/1990) provided new insights on how marriage and gender relations were important to understand why fertility in Bungoma was much higher than in Kwale. See Introduction for a general description of the areas. Two factors were important to understand the high fertility in Bungoma and the lower fertility in Kwale. First, the different

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economic structures implied a higher need for many children in the agricultural Bungoma than in the cash economy in Kwale. Second, marriage types accorded with the value of children in the two areas. In agricultural Bungoma universal marriages with high levels of polygamy pushed fertility up. Women were exposed to a strong fertility pressure from their husbands. In the cash-economy Kwale instable marriages caused reproductive health problems and the subsequent sub-fecundity contributed to fewer children being born. Here marriages patterns suppressed fertility. From this conclusion family patterns and gender relations was given increased attention in the follow-up study in 2011.

The follow-up twenty years later

Bungoma 2011

Returning after twenty years nothing seemed to have changed at a first glance. The roads to the villages were as impassable as remembered. Grass thatched mud-huts still dominated people's housing. By a second glance social changes surfaced. For example the Pan African Paper Mill, one of few industrial plants of the area had closed as had also the Catholic hospital located close to the villages. By result the formal labour market was reduced and distance to hospitals was enlarged. At the same time education among the young, both women and men had increased. Furthermore, new technology, such as mobile phones was common and Internet was available at the village centre.

The context of poverty

At the time of the second study many parents had succeeded in educating children. However, the lack of employment was a major problem. Unemployed adult children remained at home and still depending on their now old parents. The overall impression was that widespread poverty affected life maybe even stronger than twenty years ago. Many informants now told that their land was leased out, an issue not mentioned during the 1988 round. Employment was casual, like farm work for the 'richer' people, selling of vegetables, washing clothes etc. Excessive drinking was a recurring topic in the interviews and strongly linked to joblessness among men. The impact of drinking habits is described in bitter terms among women. The subject comes through in the Focus Groups in particular where examples include husbands who sell livestock (cows and

chicken) and mosquito nets (provided by the government) to buy alcohol. Fathers consume the food of the family in drunkenness. The research team could observe drunkenness among men as a public issue during the field work. Drinking contributed to more poverty and is likely to be associated with less control over fertility. At the same time, the demand for alcohol also created a market through which women, as brewers, could earn some money. Women offered the 'goods' wanted by men, such as brewing alcohol.

Another means for women to obtain cash was to offer sex for money. Examples, which surfaced primarily in the Focus Group interviews, included male relatives demanding sex in return for assisting widows with school fees and parents using daughters to sell sex as a means to attain some income. Examples also included young women selling sex at their own initiative, to add something 'extra' in their life, with a gain down to a soda. Sex for money may aggravate poverty as it may lead to pregnancy and new children for the (old) parents to cater for. Pregnant daughters sometimes moved out of the parental home into a rented room in the village centres. In a next turn these young women represented a source from which married men might 'add' a new wife, and have more children.

Female autonomy

Women's access to resources remains limited. Ownership to land is probably the clearest symbol of gender divided access to resources in Bungoma despite changes in the new Constitution. Still, only boys inherit land and all sons are expected to have a share when the father dies. Despite this, exceptional cases were observed in which inheritance of land from a late husband had happened.

Two changes were traced in bride price. First the number of cows paid had declined strongly. Second, a shift seemingly is taking place in terms of the payers while the bride price is always paid to the parents of the bride. The bride wealth used to be 12 – 13 cows, but informants now state that both what is paid for sons and received for daughters is much lower, typically under five cows. Sometimes nothing is paid. Now mothers' of the bride, the young groom and sometimes the bride herself state that they, not the groom's father, are the payers. However, resistance is traced where the young married couple decides to prioritize their children's

education rather than bride price payment. When asked to reflect on future hopes, young women typically tell that they want an income of their own in order to depend less on their husband.

Fertility

Women are still exposed to much pressure from the husbands and children are perceived as their main means to prevent the husband to 'adding a wife'. However, the mother of the husband also plays an important in pressuring a son to acquire another wife. Having children is not sufficient. A gender balance is also required. Women perceive that too few children and too few boys in particular, is a main motivation for men to have another wife. Women with no co-wife give birth to many children to prevent the man from marrying another wife while women with co-wives compete to have many children to attain more of the household resources. However, men are expected to carter for school-fees. Hence, interviewing women and men separately reveals that both desire fewer children than their parents had.

The emphasis on childbearing seems to be rooted in a situation with no alternative hopes for the future. Education was believed to take them out of poverty but to many this did not come true. Joblessness is widespread. The little money they can gain is spent on drinking and sex, both of which may lead to pregnancy, an 'added wife' and to higher fertility. Fertility has declined over the twenty years, as shown in the Introduction, but both poverty and gender relations counteract further decline.

Kwale 2011.

Returning to Kwale was very different from Bungoma. In Kwale both village boundaries and mobility (from instable marriages) caused problems in locating the areas and respondents. Furthermore, field notes from the first study were scanty due to a sudden and unexpected break of diplomatic relations between Kenya and Norway in October 1990 and the interviews had to be completed under considerable time pressure.⁶

Also in Kwale little seemed to have changed. From the village centre we visited the homes on feet by narrow paths. Women were assembled outside some houses to weave roof-mats (makutis)

⁶ This is also why we ended up with 67 women in Coast, rather than 65 as in Western. Also, the interviews with men were carried out but could not be used in practice.

as they did twenty years ago. Nevertheless, social changes beyond the first observations were striking.

While twenty years ago formal education was equated with ‘modern life’ and thus resisted, it is now embraced. This was formulated by an old woman in the following way: ‘Modern life is based upon a pen’. Today the majority of young women have at least primary schooling. No resistance to western education is traced. Parents have high aspirations for their children’s education. The fieldwork displayed women crossing traditional gender barriers in learning a trade.

The context of poverty

Also in Kwale social problems recur in the interviews. While alcohol is not mentioned (or observed) as a social problem, drug use among young people is stated as widespread. Domestic violence, drinking or smoking does not appear as problematic but adulterous behaviour is. Divorces are still widespread, as stated by informants ‘divorce is normal’. Sex for money has long traditions but does not surface as a ‘woman issue’. During fieldwork the research team observed groups of young men competing to offer sexual services to female tourists at the beach.

Female autonomy

Women’s access to material resources seem to have expanded over time. Noteworthy women list assets like gold jewelry, like earrings, necklace, ring and gold tooth, with a worth of 10.000 to 15.000 Ksh.⁷ Gold jewelry is regarded as investment.

Bride price is paid in money and the amount varies much, from a few hundred up to 100.000 Ksh. Traditionally bride price was given to the woman’s parents but this has now changed as the bride herself have independent negotiations. The groom’s parents may receive food stuff while the bride receives her own part of the bride price. As an example a young woman tells that she was given Ksh. 10.000: ‘That’s when the consent for my marriage was given. So in my marriage the dowry is mine, they say that’s my right, a right for the wife.’ Monetary payments can be combined with other commodities like furniture and food stuff. Payment of bride price to the

⁷10.000 Ksh. 85=118 USD.

bride is a modern phenomenon. The money can put in an own bank account or invested in gold jewelry. Based on this women have future plans include establishing a business, building a house, educating children or themselves.

Marriage patterns are fluctuating and men can often 'add a wife'. However, polygenic marriages do not seem to last long as either the first, or the new, wife may leave when discovering the situation. Within marriages the husband takes an active part in household chores as was also found in the first study.

Fertility

Having children is essential for women's life but neither the number nor the gender seems to be as imperative in Kwale as in Bungoma. Elaborating on the issue most will give a number in the range of four to six. Much unlike twenty years ago, women now seem to be able to have the number of children they want to have. Few mention that they have reproductive health problems and health personnel confirm improvements in this area. Also, much unlike the first round, most young women now have personal experiences with modern contraceptives, although usage may not be effective. According to statistics (see Figure 1 in Introduction) fertility has remained fairly stable in Coast. Our study indicates that this can be a result from two kinds of changes, balancing each other. On the one hand, health barriers to fertility have improved and by this the fertility potential increased. On the other hand, availability of modern contraceptives has widened and by this women are able to keep fertility at a desired level.

Summing up

In both areas do we find that children are highly valued, sometimes mentioned as the most important 'assets'. However, fertility development has followed different paths in Bungoma and Kwale. A strong decline followed by a stall took place in Western while a minor decline happened in Coast. Twenty years ago the two provinces represented extreme points in the national fertility range outside Nairobi. Today they are side-by-side among the three top-fertility provinces in the country. People in Bungoma may have managed to reduce their fertility to the number of children they can manage to carter for. However, reducing the number further is both difficult (due to uncontrolled circumstances) and the risk of having too few surviving children.

Likewise, in Kwale health improvements may have reduced the involuntarily ‘scarcity’ of children among women suffering from reproductive health problems. At the same time, also here children now go to school which may cause increased expenses to the families. Hence, social changes can impact fertility in both directions, first an increase in the ability to have more children and next an increased motive to reduce the number. The two impacts may neutralize each other to appear in statistics as an apparently a relative lack of changes.

3.2 Sub-project 2: Fertility, Child Mortality and Poverty

Anne A. Khasaakhala⁸

Introduction

The relationship between child survival and fertility has been a subject of immense academic discourse. Studies on this subject have revealed that researchers have reached various conclusions. As far back as the early 1950s concluded that improved survival of children was a necessary but not a sufficient condition for people to reduce their number of children. In short it was argued that society needed to be ‘modernized’ and health had to be improved. As more children have to be reared and educated while available resources have to be shared among more siblings, parents would solve the problems by having fewer children.

High child mortality is in general linked to high fertility. This is both because parents tend to want more children in order to be sure that some will survive (‘hoarding hypothesis’), but also that loss of a baby child may lead to an early ovulation, followed by a short interval to a new pregnancy and with more children as a final result. It has been difficult to find clear linkages between child mortality and fertility because many other issues are relevant. Likewise, it is even more complicated to find a clear linkage between child mortality, fertility and poverty. This is the focus of the study.

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Data and Methods

This report examines the linkages between fertility, child mortality and poverty, using Kenya Demographic and Health Surveys of 1993 – 2008/09. Various methods of analysis were used to describe the stated questions. These included descriptive and multivariate analysis. All deaths of children under 5 years are included in the measure of childhood death. The wealth-measure used is the same as described in Sub-project 3 and implies that poverty status is based on possessions, quality of housing and sanitation. From this a wealth index divided into five poverty groups is established. Here Poor women are those belonging to the two lowest categories while Non-poor are those belonging to the two highest wealth groups. With regard to age of women, three age categories were recorded from the age group of women into: <24; 24-34 and 35+. Marital status was categorized into two categories: married (currently married and those living together) and others which included never married; divorced and separated and widowed.

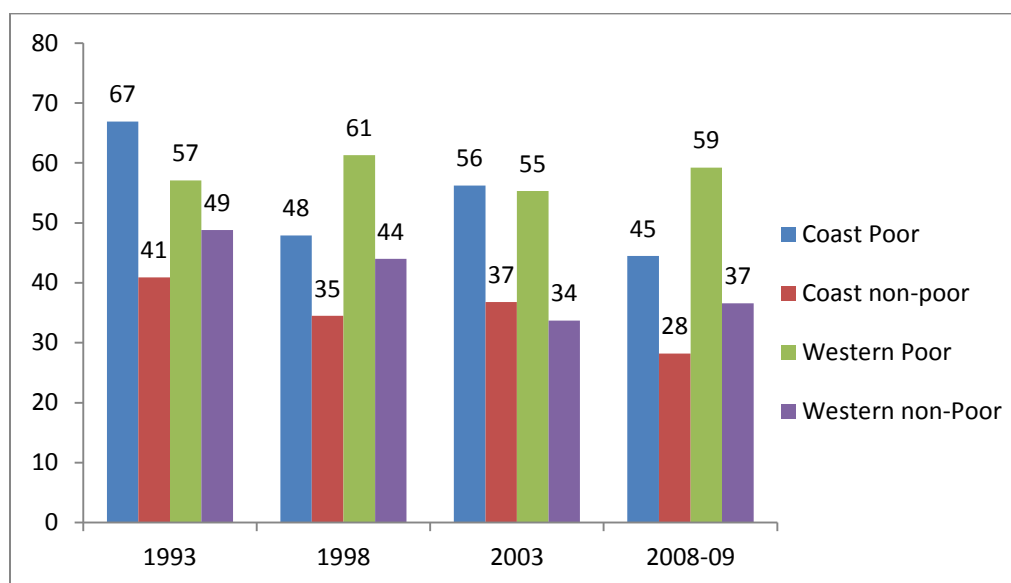
Findings

The study was expected to answer three questions by using the distinction between Poor and Non-poor. The questions to be answered include the following:

- 1. Can the loss of a child trigger additional births to substitute dead children among the Poor than the Non-poor?*

The results in the figure below indicate that generally there was higher proportion of childhood deaths among children of Poor women than the Non-poor in the two provinces. Proportion of childhood deaths were higher in Coast in 1993 but declined in 1998. However in 2003 the proportion increased but declined again in 2008-09 while in Western there was an increase in the proportion of childhood deaths among Poor women in 1998, a decline in 2003 and an increase in 2008-09.

Figure 3.2.1: Per cent distribution of children dead among children ever born, 1993-2008/09
KDHS



The decline in childhood deaths in Coast Region has been much faster than Western Province. In Coast the proportion of childhood deaths among children of Poor women were higher than in Western (67% and 57%) in 1993 respectively. However, in 2008-09 the proportion was much lower in Coast (45%) than in Western (59%). The results indicate that generally there has been a steady decline in the proportion of childhood deaths among children of Poor women in Coast (67% in 1993 to 45% in 2008-09) compared to Western region (57% in 1993 to 59% in 2008-09). Among the Non-poor a decline has taken place in both regions. The proportion of deaths in this group was lower in Coast than in Western in 1993 (41% and 49%). This pattern is repeated in 2008-09 (28% and 37%).

From the above results the following observations can be made: First, in both regions the proportion of childhood deaths was much higher among the Poor than the Non-poor women. Second, a downward trend could be observed among the proportion of dead children among children of Non-poor in both regions. Third, among the Poor in Coast proportion of childhood deaths declined faster than in Western where the proportion remained stable and even higher.

1. *Are women who experience high childhood deaths more likely to have short birth intervals and hence higher fertility in the two regions?*

The results indicate that factors that are significantly associated with higher childhood deaths among the Poor in both Coast and Western were children whose mothers had 7 or more children. A more detailed examination reveals that there are multiple risks of experiencing a childhood death for children of mothers with high birth order (4+) and birth intervals of less than 24 months in both Coast and Western regions in all the surveys. The risk is much more pronounced among the Poor than the Non-poor. This is the most consistent factor in the analysis. In essence this implies that Poor mothers in both Coast and Western provinces had more children ('hoarding hypothesis') in anticipation that some might die.

2. *What are the important factors influencing differences in fertility and childhood mortality in the two regions?*

The important factors associated with differences in fertility and childhood mortality in Coast region, were no education, age of women (35 years or more, birth order of 4 and above, and birth intervals of less than 24 months. Similarly in Western Province, children whose mothers had 7 or more children, had primary education, were aged 35 years or more, were of birth order of 4 and above, and had birth intervals of less than 24 months were associated with higher child deaths. Marital status was not significantly associated with child deaths in both regions. This pattern is observed for all survey years 1993 – 2008/09. The above scenario is repeated for the non-poor in the two regions. This implies that there may be a very thin line between the poor and non-poor in the two provinces with regard to the role of marital status and childhood deaths.

This section looks at further linkages between childhood deaths, fertility and poverty. It can be observed from Table 4 that in Coast region among the poor women the risk of childhood deaths was higher among women who had primary education, whose age was below 24 and above 35 years, birth order 2-3 and birth interval of less than 24 as well as women who had birth order of 4+ and birth interval of less than 24 months. With regard to the Non-poor in Coast a similar pattern is observed as that among the poor women. However, among the Non-poor mothers with low education (both No education and Primary) have much higher risk of child deaths than those with Secondary education. It is important to note here that levels of education are generally low in Coast Province. It can also be observed that older age of the mother plays a larger role among

the Non-poor. Further, having many children and shorter birth intervals also push the risk of child death up in this group.

Table 4: Summarized risks of child deaths among Poor and Non-poor in Coast and Western Province, KDHS1993 and 2008-09

Variables	Poor 1993		Poor 2008-09		Non-poor 1993		Non-poor 2008-09	
	Coast	Western	Coast	Western	Coast	Western	Coast	Western
Education: Secondary (Ref)								
No Education	No	++	No	+	++	++	+	++
Primary	+	+	No	++	+	++	++	+
Age: 24-34 (Ref)								
<24	+	+	+	+	++	+	+	+
35+	+	No	No	++	+	+	+	+
Marital Status: Married (Ref)								
Other	No	+	+	+	++	++	+	No
Birth Order and Birth Interval: First Birth (Ref)								
2-3 births &<24 months	+	++	+	+	+	+	+	+
2-3 births &>24 months	No	No	No	No	No	No	No	No
4+ births &<24 months	++	++	++	++	++	+	++	++
4+ births &>24 months	+	+	+	+	+	+	+	+

*Note: a positive relationship is indicated by +, a negative by -, while **No** stands for no relationship.*

Changes over time since 1993 take a somewhat different path for the Poor as having many children and short birth interval have remained strong factors pushing child deaths up throughout the period. Unexpectedly, having no education has weakened over time, while having Primary education as opposed to having Secondary education has become the most important factor pushing child deaths up.

In Western Province, as had been observed in Figure 1 the proportion of childhood deaths were higher among the Poor than the Non-poor. Low education, mother's age (very young or older than 35 years) and having many children and short birth intervals were associated with higher childhood deaths. The results also confirm that children of older and younger women were more prone to higher mortality. Having more than four children and with short birth intervals are associated with a higher risk of childhood death. The most notable change over time (1993 to

2008-09) is an elevated risk of childhood deaths among the older women. However, in general the patterns from 1993 are relatively similar to 2008-09 even if there have been some changes in between (in 1998 and 2003). Among the non-poor in Western region the findings indicate that similar factors predict childhood deaths among the Non-poor as the Poor, although the impact is weaker. There are three factors pushing childhood deaths up in this group: no education, older of above 35 years, and having more than four children and short birth intervals. The most notable change over time is an increased impact of fertility (many children and short intervals) on childhood deaths.

Conclusion

In conclusion, the results indicate that there is indeed differential mortality between the poor and non-poor in the two provinces across all the surveys and under review. The results for the two provinces support the hypothesis that the loss of a child may add to poverty burdens through additional births to replace dead children. Further women who experience high childhood mortality are more likely to have short birth intervals and hence higher fertility in the two regions. This is depicted by multiple risks of high birth order and short birth intervals. In terms of the factors that predict child deaths in the two regions, the results show that they are similar however the magnitude varies by region and poverty status. The determinants child loss as already alluded to are education, age, marital status and the multiple risks of high birth order and birth intervals. What appears to be emerging from the analysis is that the fertility stall in the two regions may have been fuelled by the high mortality among the children of poor women in both Coast and Western regions.

3.3 Sub-Project 3: The Dynamics of Fertility and Poverty

George Odwe⁹

Poverty is a multidimensional concept encompassing not only the material aspects of human life but also the social, physical, mental and spiritual dimensions as well. In this study, both

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quantitative and qualitative techniques are applied in the understanding the relationship between poverty and fertility in the study areas. Since DHS does not collect information on income and expenditure, poverty status was measured based on possessions index and quality of housing and sanitation commonly referred as wealth index quintiles¹⁰. Respondents belonging to the first or the second quintiles of households' wealth are referred as poor while those in fourth and fifth quintile constitute the non-poor.

The poor in the society constitute people with the lowest chances of gaining sustenance and income from the possession of property or skill. The majority of the in-depth interviewers and focus group participants fall in the above categorization of socioeconomic status hierarchy. The majority of respondents in the sample had primary level of education with some indicating dropping out of school due to lack of school fees (see Table 3 above). In terms of employment, the majority engaged in irregular employment and those who had access to land were involved in subsistence production. They typically engage in various casual agricultural activities such growing of vegetables, cereals, which they occasionally sell to earn little money to buy other basic items. Some were engaged in non-agricultural activities such as carpentry and small-scale business like selling used clothes. Interviews were carried out in the house of the respondent, allowing the researcher to observe the conditions under which respondent lived.

Poverty-Fertility Linkage

One of the strongest messages that emerged from the study is that poor people were not able to relate poverty and childbearing. Focus group participants saw no link between poverty and the number of children in a family, and vice versa. However, they could describe poverty, giving explanations similar to the conventional definition. The question 'Who is a poor person/define poverty' was posed during focus group discussions for men and women in the Kwale and Bungoma samples. Participants generally described poverty as lack of income, food and shelter. They also understood why they are poor, and often gave ideas about what could be done to

¹⁰A proxy for the long-term standard of living of the household and it is based on the data from the household's ownership of consumer goods; dwelling characteristics; type of drinking water source; toilet facilities; and other characteristics that relate to a household's socioeconomic status.

eradicate poverty. The following quote from a focus group discussion with women aged 36-50 from Bungoma summarizes how the participants conceptualized poverty:

'A poor person may not have a good place to stay; he/she lives in those "khulandi" (rented rooms) and has no land to cultivate. In these rented rooms he/she has to go out on the roadside every morning to enable her to eat. The kind of work he/she does, does not earn him/her good income and he/she is not able to educate his/her children. This person is not free at all, once in a while he/she is joyful, but most of the time he/she is miserable.'

Fertility Patterns

Under fertility patterns, the changes in actual number of living children and the desired number of children as stated by respondents are compared. This was made possible by comparing the results of the first round and second round of fieldwork. Respondents were asked to state the number of children they had and how many they wished to have in their lifetime. For older women and those who had completed childbearing, the second part of the question was reframed as follows; 'If you could go back to the start of childbearing, how many children would you wish to have?' Participants gave numerical answers indicating the preferred number of children.

Although the sample size used was small given that both studies were qualitative, the results point to the existing differences between actual fertility and desired fertility in Bungoma and Kwale. However, the results should be interpreted with some caution. The findings show a potential for fertility decline in both areas. In Bungoma, the majority of women sampled have more children than they desired; a situation seen over 20 years ago. The average number of children per woman dropped from 5.6 in 1988 to 4.9 in 2011. Similarly, the desired number of children also dropped from 5.1 to 4.3. By contrast, the average number of living children per woman in the Kwale sample increased from 4.0 to 4.9, while there was a slight decline in the desired number of children from 5.4 to 5.1. The number of living children is almost equal to the desired number of children. This is in contrast to the findings in the initial case studies where the actual childbearing was lower than the desired fertility. The reasons for this unexpected discrepancy between reproductive preferences and observed fertility are highlighted under sub-project 1 (Female autonomy and fertility in the context of poverty).

Analysis based on data from KDHS reveals trends and patterns in fertility changes among poor and non-poor households in Western and Coast provinces. The results shows a consistently higher current and cumulative fertility among poor households in both regions, a pattern which has been displayed in all subsequent KDHS. Two major trends are observed from the fertility level in both areas. First, declining fertility from 1989 to 1998; the decline was simultaneous among poor and non-poor households. Secondly, a stall or slowdown in the fertility decline as from 1998 to 2008/9. In Western province, the fertility rate among poor household indicates an inverted J-shaped pattern. Fertility rate initially declined across all wealth groups followed by a continuous decline among non-poor households and a stall among poor households. In contrast, fertility among poor household in Coast province displays a U-shaped pattern. Between 1989 and 1998, fertility rate declined among poor and non-poor household. However, between 1998 and 2008/9 there was a continuous decline among non-poor households and an increase among poor households. From the findings, it is clear that the stall in fertility decline in Western and Coast provinces is as a result of poor and non-poor fertility cancelling out on each other.

Socioeconomic variables such as female education and child mortality indicators are obviously involved in the relationships between poverty and high fertility. For instance, the bivariate analysis points to differences in the average number of children ever born to women in contrasting household wealth groups. The differentials also exist by child mortality status. Among women who had completed childbearing, those who had experienced child death had at least two children more than those had not experienced child death. This was observed in both provinces.

While fertility has decreased in all other age groups over the last 30 years following the path of the general transition in fertility, young women between the ages of 15 and 19 were the exception in Coast province. Here, fertility increased about 49 percent in their age-specific fertility rate between 1989 and 2008/9. The size of this increase can be questioned, but not the fact that the increase itself was evident. Comparing poor and non-poor women in Coast province, the fertility rate of poor women aged 15-19 more than doubled from 0.099 to 0.215 between 1989 and 2008/9. Furthermore, adolescent and young women in Coast province showed an increase in fertility rates among non-educated and those with child death.

Fertility Preference

Moving back to the qualitative data questions about desired number of children are difficult to deal with since respondents usually tend to rationalize the number of children they actually have. Interestingly, while fertility is higher in the Bungoma sample than Kwale, there is no significant difference in the stated preferred number of children in both areas. However, it must be pointed out here that the two data sources differ in a number of ways. For example, KDHS data sets for Coast and Western provinces include samples from both urban and rural areas while the qualitative data was mainly focused in rural areas. In addition, the qualitative sample had women in reproductive age (15-49) as well as older women past reproductive age (the oldest in the sample was aged 68 years). In light of these differences, the inclusion of qualitative information does not in any way invalidate quantitative findings; instead, it provides context and explanations to the quantitative results.

Both men and women participants preferred to have an average of four to six children in both areas. However, the desired fertility has slightly declined. The study finds that, the average number of children preferred by the majority of respondents is still very high. Hence, achieving fertility decline in Western and Coast provinces will take some time as many couples still prefer having large families. Furthermore, large family size is important in both Bungoma and Kwale, despite differences in the social and cultural contexts. This is reflected in the fertility behavior and in family's rationale for bearing certain number of children. In both areas, families prefer to have many children as a source of pride and to demonstrate power, as well as the wide reach of heritage.

But even as poor women desire more children than non-poor women, analysis on the use of modern contraceptives shows that poor women are less likely than non-poor women to use modern contraceptives-meaning they are less likely to implement their fertility aspirations. This is the case in both provinces. However, it is worth noting that among the poor women, the proportion of couples who wish to space or definitively stop childbearing is still high. For this reason, the more limited use of contraceptives among poor women could be mainly due to an unmet desire to regulate their fertility. Therefore, access and take-up of family planning are the main cause of fertility differentials among poor and non-poor women.

Determinants of fertility

The failure to adjust to lower fertility ideals in these two areas with different socio-cultural context is supported by a number of factors. One such factor is poverty which is widespread in both areas. Poverty is manifested through other indicators like high levels of unemployment, low education standards, high child mortality and food insecurity. The majority of study respondents had experienced at least one or all of the above indicators and this explains the reason for the preference of larger families. Responding to questions on perception of fertility preference and family planning, several factors that moderate the association between poverty and fertility preferences and behavior emerged. Child mortality pushed fertility upwards-a situation also observed 20 years ago. Fertility was high among respondents who have experienced death of a child under five years old. Polygyny emerged strongly as a factor contributing to the high demand for children, especially in Bungoma (Western). Men tend to marry more than one wife to have more children. On a positive note, the majority of respondents tend to revise their fertility goals downwards. This might help to reduce the fertility in the future. Some factors are involved in the process. From the participants' viewpoint, the increased need for and cost of education for children appeared to be particularly salient in creating pressure to have only a few children. Bringing up children in the current generation is viewed as an economic burden. Thus limiting family size is considered as vital way to keep household expenditures low.

Conclusion

In summary, divergent fertility trends are observed among of poor and non-poor women in Coast and Western provinces. Results show that fertility of poor women is increasing, especially in Coast province. During the entire period under review, the patterns are consistent with women from poor households generally maintaining high and often increasing fertility levels while women from non-poor households show signs of decline in their fertility. With growing poverty and growing gap between the fertility of the poor and that of the non-poor households, the implication is that greater proportions of children are increasingly born in poor households. These children, if they survive to primary school age, will generally lack access to quality education, begin childbearing early and continue the reproduction of poverty.

3.4 Sub-Project 4: Fertility and Poverty. The Role of Gender Systems

Salome Wawire¹¹

Introduction

Fertility and family planning research has traditionally been based on data collected from women in marriage unions. It is on the basis of these data that policies and programs in developing countries have been formulated to address family planning and other reproductive health needs in these countries. Granted, women are the ones who bear children and, therefore, in most need for contraceptives. However, men are also impacted by the burden of childbearing through their social responsibilities of maintaining the family's well-being through providing needs such as health, education and shelter. Moreover, it is argued that male influence on fertility decisions is so strong that it cannot be ignored or captured via proxy information from the wife. It is this realization that has, in recent years, prompted research to pay notable attention to the inclusion of men in surveys.

This section examines the differences in fertility desires between men and women in Kwale and Bungoma, and explore the role that men and women play- together or separately – in realizing these desires. These roles are examined in the context of geo-cultural values as perceived through Bukusu and Christian value systems (for Bungoma) and Digo and Muslim value systems (for Kwale). Further, we look at the position of women within these value systems, and examine its impact on fertility desires and the pathway to realizing ideal fertility. Also, this section examines the marriage systems in Kwale and Bungoma, given that in high fertility populations, marriage and marriage processes are known to play a critical role in regulating fertility. We examine the connection between changes in marriage and attitudes towards fertility. How do different men and women perceive marriage and family? How do changes in family formation

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influence marital practices like marital timing, spouse choice, living arrangements, marital stability and fertility behaviors?

Fertility Desires for Men and Women

When participants were asked about family size and family desires, it was clear that they all wanted children. In general respondents suggested that they had no control of the number of children they got because it was all according to God's will. Answers in this regard were framed as 'as many as God allows', 'it's God's decision', 'the ones that God will give me', 'only God knows', 'whatever the number I have, it is God who will have given them to me', among others. These responses were echoed across the board.

There is a common perception that men prefer more children than women. This view was held by women who argued that men were capable of getting more children because of the marriage systems in the areas. Although acceptance of polygyny differs in Muslim and Christian religions it is accepted culturally and is very common. The women argued that men preferred to have many children because polygyny supported such desires. Having more than one wife allowed the men to have many children when the total numbers of all the spouses were tallied. Women also suggested that they preferred to have more children than men because of real or perceived competition between the co-wives for limited resources, as well attention from the husband.

Also, there was the perception that, besides men wanting more children than women, they also preferred male children. In Bungoma the lineage system is historically patrilineal and so importance is placed on the male child. Kwale has a different cultural heritage, from matrilineal towards a mixed system and sex preferences were more modified. This perception was mostly held by women, who argued that men wanted male children in order to extend their lineage and inheritance. However, the same women also agreed that based on the pressures they get to get male children, they too tended to prefer to get at least one male child. This would not only secure their marriage, but also their future and that of the entire family.

There seems to be discordance in fertility desires. Men suggested that they wanted children, but not as many as those suggested by their women to be their (men's) ideal. Also, men did not agree with the sentiment that women were under pressure to have many children, or to have male

children. When asked if they had discussed about their fertility desires, it was clear that any such discussions were minimal among couples.

However in Kwale, it seems like men preferred to have less children than women. Most study participants who were of this opinion also explained that men in this culture were expected to participate in child-rearing activities from a child's tender age, as well as contribute towards household chores. All this in addition to bearing the financial responsibility of the child's cost of education, health, shelter and food. These expectations led men to prefer smaller families in order to fulfill their responsibilities as fathers.

So what is the basis of the perceptions regarding the partner/spouse's fertility desires? It was suggested that historical evidence shows there is great value placed on large family sizes and composition, and many women are expected to live up to that expectation. As the quote below shows, precedence set by the older generation sets the benchmark for the ideal family size for the younger women. The younger women are under covert undue pressure to have children at the same level as their mothers or mothers-in-law.

When women in Bungoma were asked why they believed that men preferred to have more children, they attributed the preferences to the fact that men are usually not exposed to everyday childrearing activities because their participation in everyday childrearing activities was minimal. As such, the men had a skewed perspective of the work involved in childrearing, and often undermined the burden the women shouldered. Their lack of involvement in daily household chores and childrearing activities denied them the experience of the burden of taking care of children to the extent that they favored larger numbers of children.

Marriage/Union Formation

All study participants, men and women, were asked in the in-depth interviews to talk about their marriage/relationships history. The interest was in understanding various aspects of marriage, including the meaning of marriage, reasons for marriage, types of marriage, duration of marriage, age at marriage, dowry, expectations in marriage and prospects for the future of marriage, among others. The respondents, including FGD participants, shared their personal experiences, as well as their thoughts about these issues from a community perspective.

It emerged that study participants had varied marriage and relationship experiences, but it was also apparent that there was a pattern in the processes, especially with regards to marriage. 'Come we stay' was cited by most participants and FGD participants as a common relationship/marriage trend in their communities. From the responses, 'Come we stay' is a marriage formation in which a man and a woman get together in a union that would formerly be deemed legally, culturally and religiously unacceptable. In this formation, the couple lives together, with or without the knowledge or blessings of parents or guardians, or the community in general. Usually, following different sets of circumstances the woman is 'invited' by the man to live with him, hence the name 'come we stay'. This relationship also had other names such as 'sneaking', 'passing through the bush', 'eloping', 'running away' and 'living together'. 'Come we stay' had long traditions in Kwale, while in Bungoma this appeared to be a recent development. These marriages were discussed in detail, as it was seen as one of the most common marriage forms in these communities.

Reasons for changing marriage formations

The participants in the study were asked to discuss the reasons that were associated with the increasing preference for 'come we stay' marriages. Unwanted premarital pregnancy was cited as a common reason for many couples to 'elope' and live together in a 'come we stay' union. Particularly in Bungoma, many participants spoke about the immense pressure on couples to get married when it was discovered that the woman was pregnant. In most cases, it appeared that many couples wanted to avoid the social stigma that is associated with premarital pregnancy, and therefore arranged to live together to somewhat legitimize the pregnancy and the baby.

Study participants often cited pregnancy as the main cause for dropping out of school for young girls. While the Kenyan school policy supports the return to school of girls after childbirth, many girls preferred not to return to school due to stigmatization. As such, many opted to join their partners in 'come we stay' unions.

The discussions around 'come we stay' unions pointed to the role of scarce resources for community members. It was felt that 'come we stay' was gaining popularity because there were few financial obligations for the couple prior to co-habiting. In 'normal' marriages, it was procedural for the man or his family to pay dowry to the family of the bride, or to the bride

herself (in the case of Kwale) prior to the marriage being approved and formalized. Dowry takes several forms and is sometimes a protracted process, which in turn discourages some couples from participating. But beyond that, many study participants were of the opinion that the financial demands of dowry and marriage ceremonies discouraged many couples from taking the culturally and religiously acceptable route to marriage, and led them to take alternative options such as ‘come we stay’.

As seen elsewhere in this results section, ‘come we stay’ is a union that is increasingly gaining support. In most cases, ‘come we stay’ was viewed as a union of convenience, as it arose from various circumstances experienced by individuals and society as a whole, as discussed earlier in this paper. ‘Come we stay’ is occurring more among young people, but old people are also players in the dynamics involved. As such, its acceptability was universal, and its occurrence was seen as inevitable.

The discussions suggest that ‘come we stay’ unions are not entirely viewed as marriage. The participants in the study seemed to agree on the idea that ‘come we stay’ unions were temporary and/or transitional. Transition from ‘come we stay’ status is expected to occur when the circumstances that led to the union change. For example, once an unplanned pregnancy is ‘legitimized’ through ‘come we stay’, it is expected that after a period of time, the couple will move to the next level of their union – a formal marriage sealed with a cultural or religious ceremony. In these circumstances, dowry is paid and/or a religious wedding ceremony is performed.

While the above evidence shows ‘come we stay’ as a positive influence on the couple, some study participants suggested that the temporary nature of the union makes women vulnerable and unsure of the union’s transition to marriage. In which case, women opted to have children in order to secure their place in the marriage. Also, it emerged that marriages that progress from ‘come we stay’ unions were usually unstable, as the women were vulnerable to abuse, and in the case of Bungoma, were exposed to the likelihood of being enjoined in a polygynous marriage.

It was suggested by some study participants that marriages that begin as ‘come we stay’ were likely to last longer than those that begun in acceptable forms such as weddings and cultural ceremonies. The reason behind this sentiment was that ‘come we stay’ couples developed a

relationship that was based on an understanding of equality, dialogue and working together to resolve issues. This was particularly so because these unions begun under very difficult circumstances and so the couple learned early to work through problems together.

This project informed us about the importance of including men. We learned that perceptions on fertility desires differ among men and women but they only exceptionally discuss fertility. We also learned about gender differences between the two study areas. In Bungoma gender differences are more pronounced, polygamy is widespread, women have to endure. Men take no part in child care and women dispose over few economic resources. In Kwale gender differences are weaker. Men here want fewer children than men in Bungoma. Women can leave if the husband takes another wife. Men have long traditions in participating in child care and women dispose of parts of the dowry, which provide them with some economic resources.

4.0 Discussion: Fertility and Poverty

The starting point for the Fertility and Poverty-project is the global fertility decline, in which Kenya along with a few other East-African countries experienced a stall after an initial fertility decline and fertility remained at a fairly high level. This project examines fertility changes in Western and Coast Regions over a twenty-year period (1989-2011). Initially (1989) the two regions represented contrasting fertility levels, very high in Western and relatively low in Coast. Over time the difference between the two regions is almost wiped out, and both regions are now positioned in the upper end of the fertility range. The aim of this project is to increase the understanding of fertility change over time.

Statistics reveal that contraceptive use was far below the national average in both regions in 1989. A substantial increase in usage has taken place in both regions, reaching the national average in Western although lower in Coast. However, the sharpest increase in contraceptive usage has taken place from 2003 to 2008/09 in both regions, while little change occurred in fertility during these years. Contraceptive usage is just a minor piece in the puzzle and does not fully explain why fertility decline stopped in Western, and why only a modest decline took place in Coast. Childhood mortality is another factor, expected to have major influence on fertility. The Fertility and Poverty-project contributes to the knowledge base by emphasizing linkages

impacting fertility beyond traditional demographic factors, such as poverty, child mortality and gender relations.

The project includes two kinds of data sources. First, case studies with personal interviews and Focus Groups were carried out in Bungoma, Western and Kwale, Coast in 1988/90 and 2011. Second, large scale data from KDHS¹² are used to analyze statistical associations between poverty, fertility and child mortality for Western and Coast regions (1989 to 2008/09). By applying various methodologies, both large surveys and interviews in the villages, the foundation for information was widened. However, three differences between the two data sources should be noted. First, while the case studies are based in rural villages the KDHS analyses includes both rural and urban areas. Second, while both women and men are interviewed in the case studies, the KDHS data used here are from women only. Third, the age span of the case studies ranges from 18 to about 70 years¹³ with the majority in reproductive ages while in KDHS the age span is 15 to 49. By combining these data sources qualitative information from case studies provided context and explanations to the quantitative results from KDHS.

The Fertility and Poverty project is a follow up from a first round of studies in the same villages in Bungoma, Western and Kwale, Coast in 1988 and 1990 respectively. The 2011 round contains the four sub-projects as described above. Emphasis is given to results on fertility, child mortality and gender relations. Results from the first round suggested that the desire for many children was higher in Western than in Coast, but also that reproductive health problems prevented women in Coast to have as many children as desired. In agricultural Bungoma universal marriages with high levels of polygamy pushed fertility up, while in cash economy Kwale instable marriages suppressed fertility. Meaning that the two areas showed a potential for movement in fertility, albeit in opposite directions.

Twenty years later, in 2011, poverty was manifest in both study areas. Despite more education formal employment was very limited. Poverty was a shared context in the study communities, but fertility trends diverged.

¹²Kenya Demographic and Health Surveys

¹³ Some interviewees do not know their age.

Among the Bukusu in Christian Bungoma the lineage system is historically patrilineal. Women argued that men wanted male children in order to extend their lineage and inheritance. By contrast, among the Digo in Kwale a matrilineal heritage was transformed to a modified patrilineal system by the transition to Islam. Also here male children are desired, but the strength is modified. These cultural heritages had implications for gender differences between the two study areas as we shall see later. Both areas have wide spread poverty, 53 and 72 percent of the populations live below the poverty line in Bungoma and Kwale respectively. Poverty is manifested through high levels of unemployment, high child mortality and food insecurity. A major change has taken place in education, particularly in Kwale where resistance to western education is no longer an issue. However, although education has increased in both areas, standards are low and employment is scarce and affects young men in particular. 'Boda'boda' (motorbikes) offering transport is common, but the supply by far exceeds the demand and earnings are irregular and little. In agricultural Bungoma land is increasingly leased out and excessive drinking has become a major problem. In Kwale where trade and tourism is more central, drug abuse is mentioned as a problem, primarily among young men.

Twenty years ago women in Bungoma had very limited access to economic resources in 1988, and this situation prevailed in 2011. In Kwale cultural traditions implied that women depended less on their husbands. Over time changes in bride price have opposite implications for women in the two areas. In Bungoma bride price payment (primarily in cattle) has declined over time, but responsibility for payment has shifted from parents to the young couple. Young women now dispose their few economic resources and shoulder the burden of payment together with the husbands. In Kwale, women's access to economic resources is widened as the bride can now negotiate, and receive a portion of the bride price (primarily in cash and jewelry). The money is used for investments in future, including education (for women themselves and their children) and putting up a business.

As revealed in Figure 1 (Introduction) fertility was very high in Western (on average 8 children per woman) and much lower in Coast (on average 5.4 children per woman) in 1989. Over the twenty years fertility declined, and stabilized in Western at 5.6 (2008/09). In Coast fewer changes took place and fertility now remains close to the national average (4.8 in 2008/09). Over time the difference between the two regions is almost wiped out.

Fertility changes took place along with other changes, such as contraceptive use which was far below the national average in both regions in 1989. Over time a substantial increase has taken place but is substantially higher in Western than in Coast (46.5% versus 34.3%). The sharpest increase took place from 2003 to 2008/09 in both regions, while little change occurred in fertility during these years (Figures 1 and 2). The case studies contribute to the understanding of such a paradox.

Comparing actual fertility from the two rounds of case studies reveals a drop in Bungoma, while in Kwale an increase had taken place. In Bungoma women still have more children than they desire and a potential for future fertility decline is indicated. In Kwale, only a minor decrease in the desired number of children was traced and women still have slightly fewer children than they desired. Reproductive health problems, a major cause suppressing fertility twenty years ago, have improved and by this women's ability to have children increased. The study indicates that the relative stable fertility development in Kwale is result from improvement in reproductive health on the one hand, and use of modern contraceptives on the other. By this women are enabled to keep fertility at a desired level.

Although efforts are made to limit fertility in the two areas, there is a shared geo-cultural value on the importance of having many children, which is often framed as 'as many as God allows'. The increase in contraceptive use suggests awareness and agency to limit the number of children. However, use was often discontinued and a new child was conceived in between spells. The situation signifies that childbearing is subjected to a host of circumstances perceived as outside the individual's control.

In this project the effect of poverty on fertility was also analyzed using KDHS data (see sub-projects 2 and 3), dividing women by the poverty-status of the household as Poor and Non-poor respectively. The analyses revealed that the initial fertility decline appeared for both groups but took different paths over time. The decline continued among the Non-poor but not among the Poor. In Western the fertility decline among the Poor stopped while in Coast a fertility increase (particularly among the youngest women) occurred. This result suggests that poverty is a key to understanding the fertility stall. Furthermore, poverty reduces child survival.

High risk of child mortality is regarded as a major barrier to fertility decline and is strongly linked to poverty. Table 1 (Introduction) shows that despite decline child deaths are higher than the national average in both Western and Coast regions. The decline has been modest in Western, and the sharp increase from 1998 to 2003 corresponds to the timing of the fertility stall. In Coast the marked decline occurred but the level remains high. Child mortality pushes fertility up. Women who have experienced child death had at least two children more than those had not experienced child death among women who had completed childbearing in 2008/09. This was observed in both provinces – as observed also twenty years ago.

Analyzing child deaths by the poverty status revealed a strong association between poverty and child deaths. The proportion of women with childhood death is higher Western, but Poor women had more child deaths than Non-poor. Among the Non-poor a decline in childhood mortality has taken place in both regions. Mothers with many children and short birth intervals faced the highest risk of childhood deaths. Women with child deaths had more children, and women with more children had more child deaths. The most notable change over time is an increased impact of fertility (many children and short intervals) on childhood deaths. While statistical analyses found that poverty and child mortality were reinforcing forces pushing fertility up participants in the case study saw no link between poverty and the number of children in a family. Poverty was caused by issues such as lack of income and scarcity of land, but not from having many children. From the participants' viewpoint, the increased need for and cost of education for children appeared to be particularly salient in creating pressure to have only a few children. Bringing up children in the current generation is viewed as an economic burden.

Unlike traditional fertility research focusing on women only this project also includes men. Emphasis is given to gender communication and marriage processes, recognized as critical for regulating fertility among high fertility populations. Polygyny, though accepted in Islam but not allowed in Christianity, is culturally accepted in both study areas. This study found a strong association between polygyny and high fertility desires in both areas.

While both areas had high occurrences of polygyny, practice differed in important ways. First, marriages were stable in Bungoma, while traditionally instable in Kwale. Hence, in Bungoma women depended more on one husband than in Kwale. Furthermore, marital instability implied

that men learned to manage household chores in between marriages. From the result a main difference between the two areas was traced in cultural expectations for men. While in Bungoma household chores and child-rearing were activities for women only, in Kwale men participated in these activities. Furthermore, different expectations to gender roles were reflected in more modified fertility desires in Kwale while in Bungoma women attributed the higher fertility desires among men to their minimal exposure to everyday childrearing activities. Also fertility desires were perceived to be higher among men (according to women in particular), and at least one male child is perceived as essential. Despite discordance in fertility desires, couples only exceptionally discuss such matters.

Substantial changes in marriage forms were traced. The so called ‘come we stay’ marriages, with long traditions in Kwale, appeared to be increasing in Bungoma. Discussions in Focus Groups linked this to poverty because such unions involved few financial obligations such as dowry and marriage ceremonies. Perceptions of ‘come we stay’ unions were twofold. On the one hand equality, dialogue and co-operation might be enhanced, but on the other such unions were temporary and often a means to ‘legitimize’ an unplanned pregnancy. Women in these unions may opt for more children to secure their place in the marriage and likely to experience a polygynous marriage. Less marital security and limited economic resources among women could hamper future fertility decline in Bungoma. In Kwale women have gained more access to economic resources and with long traditions of marital instability a potential for future fertility decline might be expected.

5.0 Conclusions and Recommendations

The stall in fertility is associated with reproductive behaviour of Poor women, while among the Non-poor a continuous decline has taken place from the period of the first case study. Poor women are also exposed to more child deaths and additional births through replacement of dead children. As result, this analysis suggests that the fertility stall may have been fuelled by the high childhood mortality among Poor women.

Despite differences in the social and cultural contexts having large families is important in both Bungoma and Kwale, although more so in Bungoma. To women children area means to gain

resources and security, while to men they are a source of pride and a means to demonstrate power in the absence of employment and income.

In resource poor contexts, fertility is also impacted by circumstances outside the control of individuals, such as the enhanced but also discontinued contraceptive usage. A worrying finding is the clear linkages between poverty, childhood mortality and fertility. With more children born in poor households these children, if they survive to primary school age, will generally lack access to quality education, begin childbearing early and continue the reproduction cycle of poverty in their fertility behaviour as adults. Poverty, childhood mortality and polygyny hamper fertility decline.

References

- Adamchak, D.J. and Adebayo, A. (1987): 'Male fertility attitudes: a Neglected Dimension in Nigerian Fertility Research.' *Social Biology*, 34(1-2): 57-67.
- Bankole, A. and S. Audam (2009): 'Fertility Preferences and Contraceptive Use in Sub-Saharan Africa'. Paper presented at the *Seminar of the Gender Committee of IUSSP* at African Population and Health Research Center (APHRC) in Nairobi, Kenya, August 24-25.
- Blacker, J. (2002): 'Kenya's Fertility Transition: how long will it go?' *Expert Group Meeting on Completing the Fertility Transition*, N.Y. 11-14 March. www.unpopulation.org
- Brass, W. and C. L. Jolly (eds.)(1993): *Population Dynamics of Kenya*. Washington D.C.: National Academy Press.
- Bulatao, R.A. and R.D. Lee (eds.)(1983): *Determinants of Fertility in Developing Countries*. Vol.1 Supply and Demand for Children. New York: Academic Press.
- Caldwell, J. C. (1982): *Theory of Fertility Decline*, London: Academic Press.
- Caldwell, J. C. and T. Schindlmayr (2003): 'Explanations of the Fertility Crisis in Modern Societies: A Search for Communalities'. *Population Studies*, Vol. 57(3): 241-263.
- Central Bureau of Statistics (CBS) [Kenya], Ministry of Health (MOH) [Kenya], and ORC Macro. 2004. "Kenya Demographic and Health Survey 2003." Ed. by M. Calverton: CBS, MOH, and ORC Macro.
- Cleland, J. (2001): 'Effects of Improved Survival on Fertility: A Reassessment.' *Population and Development Review*. Vol. 27, Supplement: Global Fertility Transition: 60-92.
- Cosio-Zavala, M. (2002): 'Examining Changes in the Status of Women and Gender as predictors of Fertility Change Issues in Intermediate-Fertility Countries.' *Expert Group Meeting on Completing the Fertility Transition*, N.Y. 11-14 March. www.unpopulation.org
- Davis, K. (1963): 'The Theory of Change and Response in Modern Demographic History.' *Population Index* 29: 345-366.

- DeRose, L. F., and A.C. Ezech (2005): 'Men's influence on the onset and progress of fertility decline in Ghana, 1988-98. *Population Studies*, Vol. 59(2):197-210.
- Dodoo, F. N.-A. (1998): 'Men Matter: Additive and interactive gendered preferences and reproductive behaviour in Kenya'. *Demography*, Vol. 35(2): 229-424.
- Doepke, M. (2005): 'Child mortality and fertility decline: Does the Barro-Becker Model Fit the Facts?' *Journal of Population Economics*, Vol. 18: 337-366.
- Gerlach, L. P. (1963): 'Traders on Bicycle: a study of entrepreneurship and cultural change among the Digo and Duruma of Kenya.' *Sociologus. A Journal of Empirical Sociology, Social Psychology and Ethnic Research*, Vol. 13(1): 32-49.
- Gillette, C. (1978): *A Test of the Concept of Backwardness: A case study of Digo Society of Kenya*. Ann Arbor, Michigan: Cornell University, University Microfilms International.
- Gomm, R. (1972): 'Harlots and Bachelors: Marital Instability among the Coastal Digo of Kenya'. *Man*, Vol. 7(1): 95-113.
- Jejeebhoy, S. (1995): *Women's Education, Autonomy and Reproductive Behaviour: experience from developing countries*. Clarendon Press: Oxford.
- Jensen, A.-M. (1995): 'The Status of Women and the Social Context of Reproduction.' *Journal of International Development*, Vol. 7(1): 61-79.
- Jensen, A.-M. and M.N. Juma (1989): *Women, Childbearing and Nutrition. A case study from Bungoma, Kenya*. Oslo, NIBR-report no 16.
- Jensen, A.-M. and A. A. Khasakhala (1993): *Too Many Children? Fertility and Family Planning in a Muslim Society of Kenya*. Oslo, NIBR-report, no 15.
- Kelley A.C. and C.E. Nobbe (1990): *Kenya at the Demographic Turning Point? Hypotheses and a Proposed Research Agenda*. World Bank Discussion Papers, No. 107, Washington D. C.; World Bank.
- Kenya National Bureau of Statistics (KNBS) and ICF Macro (2010). *Kenya Demographic and Health Survey 2008-09*. Calverton, Maryland: KNBS and ICF Macro.
- King, M. (1990): 'Viewpoint: Health is a Sustainable State. *The Lancet*, Sept. 15: 664-667.
- Knodel, J. and E. van de Walle (1979): 'Lessons from the Past: Policy Implications of Historical Fertility Studies.' *Population and Development Review*, Vol. 5(2): 217-245.
- Lasee, A., and S. Becker S. (1997): 'Husband-Wife communication about Family planning and Contraceptive Use in Kenya.' *International Family Planning Perspectives*, Vol. 23(1): 15-33.
- Lutz, W., V. Skirbekk, and M. R. Testa (2006): 'The Low Fertility Trap Hypothesis: Forces that may lead to further postponement and fewer births in Europe.' *Vienna Yearbook of Population Research*: 167-192.
- Mason, K. O. (1985): *The Status of Women. A review of its relationship to fertility and mortality*. New York: The Rockefeller Foundation.
- Mason, K. O. (2001): 'Gender Systems in the Fertility Transition. *Population and Development Review*, Vol. 27, Supplement: Global Fertility Transition: 160-176.

- National Council for Population and Development (NCPD) [Kenya] and Institute for Resource Development/Macro Systems Inc. (IRD) (1989): *Kenya Demographic and Health Survey 1989*. Columbia, Maryland: NCPD and IRD.
- National Council for Population and Development (NCPD) [Kenya], Central Bureau of Statistics (CBS), and Macro International Inc. (MI) (1994): *Kenya Demographic and Health Survey 1993*. Calverton, Maryland: NCPD, CBS, and MI.
- National Council for Population and Development (NCPD) [Kenya], Central Bureau of Statistics (CBS), and Macro International Inc. (MI) (1999): *Kenya Demographic and Health Survey 1998*. Calverton, Maryland: NCPD, CBS, and MI.
- Notestein, F. W. (1976[1945]): 'Population: the Long View.' In T.W. Schultz (ed.): *Food for the World*, New York: Arno Press: 36-57.
- Notestein, F. W. (1963): 'Economic Problems of Population Change.' *Proceedings of the English International Conference of Agricultural Economists*: London: Oxford University Press: 13-31.
- Odwe, G. O. (2014): *Fertility and Household Poverty in Kenya: a comparative analysis of Coast and Western Provinces*. PhD-thesis, Population Studies and Research Institute (PSRI), University of Nairobi.
- Shapiro D. and T. Gebreselassie (2008): 'Fertility Transition in sub-Saharan Africa: falling and stalling.' *African Population Studies*, Vol. 23: 3-23.
- van de Kaa, D. (2003): 'Ready, Willing, and Able: Ansley J. Coale, 1917-2002.' *Journal of Interdisciplinary History* Vol. 34(3): 509-512.
- Westoff, C. F. and A. R. Cross (2006): *The Stall in the Fertility Transition in Kenya*. DHS Analytical Studies No. 9. Calverton, Maryland: ORC Macro.
- Wattenberg, B. J. (2004): *Fewer: How the New Demography of Depopulation Will Shape Our Future*. Chicago: Ivan R. Dee.