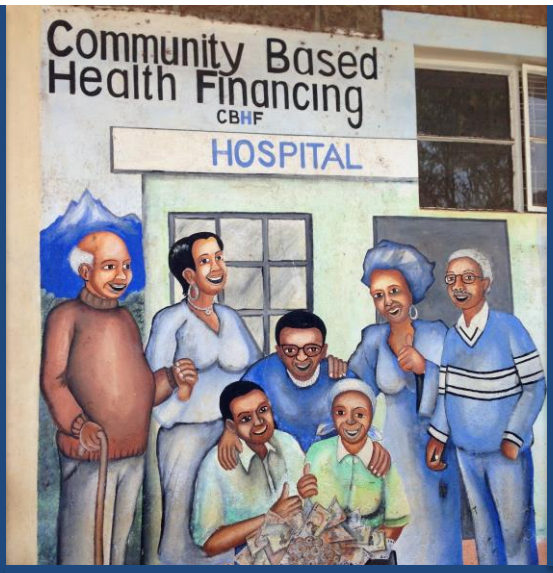
Microinsurance Learning and Knowledge

Balancing client value and business case
in Kenyan health microinsurance



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Executive summary

In an effort to better understand how profitability and client value complement one another and how they conflict, the MicroInsurance Centre's Microinsurance Learning and Knowledge (MILK) project conducted extensive research on health microinsurance in Kenya from both a business case and client value perspective.

While private expenditures comprise a significant proportion of healthcare spending in Kenya, health insurance (and microinsurance) covers a small percentage of the population. The public National Hospital Insurance Fund (NHIF) is the largest insurer in the country, covering formal sector workers through their employers and informal sector workers on a voluntary basis. A number of private insurers offer the remainder of products. One such provider is the Afya Yetu Initiative, an NGO that oversees and implements 30 Community Based Health Insurance schemes. Another is the commercial insurer British-American Insurance Company Kenya (Britam).

To understand client value, MILK conducted two "Client Math" studies of similar hospitalization insurance products offered by these two private insurers. We used surveys to uncover the full costs low-income people (insured and uninsured) incurred in connection with a high-cost hospitalization and how those costs were financed. We found that while both products offered value to clients, the Afya Yetu product was better understood by respondents and reduced costs to the insured more than Britam's Majani product. In both cases, insured respondents were able to finance their costs more independently than uninsured respondents by reducing spending rather than taking out loans. Support from friends and family was a similarly common source of financing for both insured and uninsured respondents, and insurance acted as a valuable complement to this important but insufficient form of support.

To understand the business case, MILK analyzed financial outcome data for Afya Yetu and Britam over the 5-year period 2008-2012 and held detailed interviews with management of these insurers and other key stakeholders. The struggles of these two programs appear to mirror those of others across Kenya. Neither has achieved sustained profits on its microinsurance activity without subsidy. Competition among private insurers and with the public NHIF program is significant. Both programs have taken steps toward sustainability, but Britam's business case is the most promising, at least in the short term.

Combining the lessons of this value and business case work, we find that insurance does not cover all costs, and it does not need to do so in order to be valuable. Nonetheless, there are clear tensions between client value and business case. As insurers work to resolve these tensions, they may benefit from considering some of the critical features of the programs we studied; elements that contribute to and/or undermine the client value proposition and the business case:

- Level of coverage is important, but not the only determinant of value.
- Simplicity in product features can improve value, even where some flexibility and choice must be sacrificed.
- Perceptions of value by clients drive demand, enrollment, and renewals.
- Low enrollment and adverse selection continue to challenge insurers.

The highly subsidized public option provided by NHIF has shaped the Kenyan microinsurance landscape. As long as this option continues to be available, it will likely be difficult for unsubsidized private players to compete directly from both a value and a business perspective. However, some potentially promising opportunities exist to provide complementary coverage.

1. Introduction

Both client value and business case are needed for microinsurance to be sustainable. In an ideal world, the two will ultimately reinforce one another. We hope that value will be recognized by clients, leading to greater satisfaction with and demand for insurance, contributing to insurers' bottom lines. We also hope that reasonable profits to insurers will contribute to the sustainability of microinsurance schemes, enhancing their ability to provide value to clients in the medium and long term. Complications of the real world make achieving both value and business goals more difficult. A careful balance of product elements must be struck:

- Premiums must be affordable for clients but must also be adequate to cover insurers' costs.
- Benefits must be sufficient to provide value to clients, but must not be so high as to render products unsustainable.
- Administrative processes must ensure that clients receive good service, adequate information, and sufficient support to use products, but insurers' expenses must also be kept in check.

Health insurance is particularly difficult from both a value and business perspective. Health needs are particularly complex, costly, and likely to vary greatly between individuals. Health insurance is also particularly susceptible to adverse selection and fraud (Radermacher et al., 2006). Designing and administering health microinsurance products that meet clients' and providers' needs is a great challenge and one for which few clear-cut standards exist.

In an effort to better understand how profitability and client value complement one another and how they conflict, the MicroInsurance Centre's Microinsurance Learning and Knowledge (MILK) project conducted extensive research on health microinsurance in Kenya from both a business case and client value perspective. To understand client value, the MILK team used two "Client Math" studies of programs with similar coverage, calculating the full costs incurred for a high-cost hospitalization and how those costs were financed by insured and uninsured people. We also conducted an in-depth study of the profitability of the two private insurers that underwrite these products, complemented by interviews with a number of other microinsurance stakeholders in Kenya. Our examination of both value and business case considers the Kenyan context, specifically the large, government-sponsored National Hospital Insurance Fund (NHIF). We consider where and how there may be space for private health microinsurance to provide value to clients and achieve profitability for insurers.

The remainder of the paper is organized as follows: Section 2 provides background on healthcare in Kenya and the public and private insurance programs operating there; Section 3 provides an in-depth description of a Client Math study of the value of two private microinsurance programs; Section 4 provides an in-depth description of our business case analysis; and Section 5 concludes.

2. Healthcare and health microinsurance in Kenya

2.1. Healthcare in Kenya

The Kenyan healthcare system is based on a cost-sharing scheme between the government and patients, with donors making up a significant portion of the gap. Households contribute between 29% and 50% of aggregate health expenditures (out-of-pocket), the government covers between 30% and 39%, and donors fund the remaining expenses. (Wamai, 2009; Luoma et al., 2010; Smith et al., 2010). Despite the significant costs borne by government and donors, a hospital visit typically represents a significant financial burden on Kenyan families. The World Health Organization reports that a public hospitalization in Kenya costs an average of USD 35 per day (excluding drugs and diagnostics) (WHO, n.d.) - over seven times the typical daily wage (World Bank, n.d.). These costs are combined with additional fees for consultations, tests, and medicines. Particularly when associated with a long-term hospitalization they can bring immense hardship and lasting financial struggle to patients and their families.

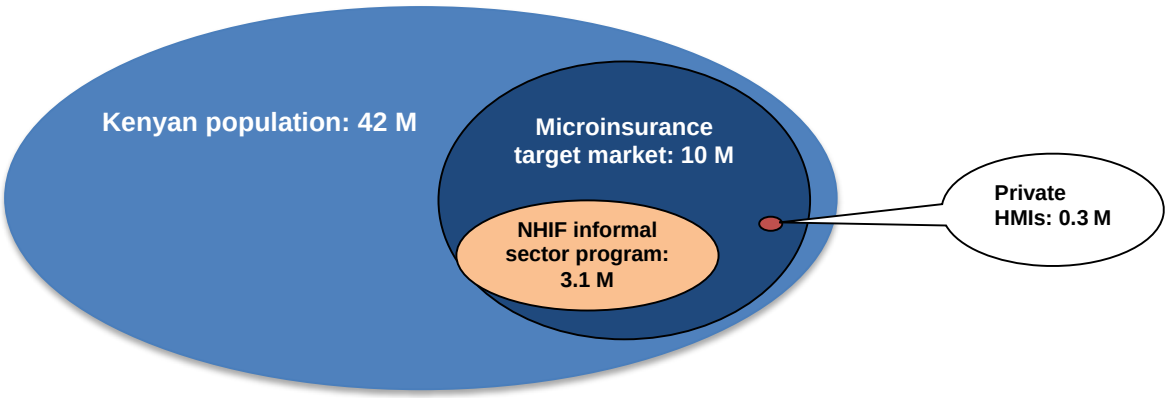
For others, costs may prevent or deter them from seeking care when needed. The disparities in use of inpatient care in Kenya suggest that access is particularly limited for some. Wealthy Kenyans and residents of urban areas are far more likely to seek inpatient care than their poorer and rural counterparts[1] (Kenya Ministry of Health, 2009). For outpatient care, the tendency to skip care due to cost may be even more pronounced. Kenya Ministry of Health (2009) found that 16% of surveyed Kenyans who fell ill within the past 4 weeks did not seek outpatient care, and of those who skipped care 38% cited lack of money as the reason.

These hardships signal a clear gap in the ability of many Kenyans to cope with the financial costs of health, a gap where insurance has potential to play an important role.

2.2. Public and private health insurance

Despite the potential value of health insurance, coverage remains very low. As of 2009 just 10% of Kenyans were estimated to have health insurance, and this figure was even lower for women, low-income and rural populations (Luoma et al., 2010).

Figure 1: Health microinsurance coverage in Kenya



The public National Hospital Insurance Fund (NHIF) represents the vast majority of the existing health insurance coverage in the country. Employers are mandated to provide NHIF coverage to their employees (deducting the premium from their salaries); informal workers may purchase coverage for themselves for an annual premium of USD 22[2]. As of June 2013 the informal sector program covered 3.1 million people including dependents (See Figure 1). The NHIF provides in-patient hospitalization coverage to the insured, their spouse and children in all government hospitals and many accredited

[1] In 2007, individuals in the richest wealth index quintile were nearly twice as likely to use inpatient care as those in the poorest quintile (37 admissions vs. 20 per 1,000 population). Urban individuals have a higher admission rate than rural (38 vs. 24 admissions per 1,000 population), likely due to a combination of greater access to facilities and greater ability to pay.
[2] In this study, USD equivalents were calculated using the exchange rate on December 31st of the year cited as stated on XE Currency Converter.

mission and private hospitals. Though any Kenyan may opt-in to NHIF insurance, the scheme still fails to reach the majority of the population.

We estimate that about 300,000 Kenyans are covered under approximately 125,000 private health microinsurance policies, representing less than 1% of the Kenyan population of about 42 million (2010) of which more than 50% live in poverty (Financial Sector Deepening project). Community Based Health Financing Schemes (CBHFs) are voluntary groups that have been active in Kenya since 1998, allowing individuals to pool their health risks and draw from the pool in the event of an emergency. Their activities are coordinated under the Kenya Community Based Health Financing Association (KCBHFA). KCBHFA's members include insurance providers, trainers, researchers, and service providers (KCBHFA, n.d.). The Afya Yetu program described below is one such member. In 2006, USAID counted 30 such groups, with membership bases ranging from 14 to 2,100 members. Monthly premiums average 100 Kenyan Shillings (USD 1.15) (Smith et al., 2010).

The vast majority of the target population for microinsurance is not covered by either public or private insurance, though it is difficult to find another country in the world, aside from India, with as much health microinsurance activity as Kenya. Forty-six insurers compete in saturated upscale markets where there is little prospect for growth, with 15 insurance companies writing health insurance. In this context it is easy to see why insurers would take interest in health insurance and particularly health insurance for the less well off, who represent a large untapped market. However, despite more than a decade of significant efforts from insurers, few poor Kenyans are enrolled in private health microinsurance. Insurers struggle to break even in this space, and little is known about the value these products have to the few clients who are covered.

2.3. PRODUCTS WE STUDIED

In an effort to begin to fill these gaps in understanding, MILK conducted in-depth studies of a) the profitability of the two largest private health microinsurance providers in Kenya and b) the client value of select products (with similar coverage) offered by those insurers. In each case we consider these private schemes in the context of the NHIF program, in an effort to understand where and how these private schemes may best complement the large public program. We also complement the analysis with select interviews and desk research on other health microinsurance programs in Kenya, as well as lessons gleaned from MILK's work in other countries.

MILK studied the profitability of Britam and Afya Yetu over the five-year period 2008-2012 and the value of select products offered by these insurers in the Central Province region of Kenya (see Table 1 for an overview of the providers and products).

Table 1: Summary of providers and products discussed in this paper

Insurer	Distribution	Product	Annual Premium	Covered Lives
Britam	Tea factories and Majani Broker	Cashless inpatient coverage bundled with life insurance*	Average USD 21 (KSH 1,800)	220,000 lives
	MFIs	[Various]		
	Direct	[Various]		
Afya Yetu Initiative (30+ CBHIs)	Community leaders and community-based agents	Product 1: NHIF plus* Product 2: small household* Product 3: expanded households*	Most clients pay USD 8 (KSH 700) for Product 2	30,297 lives
NHIF	Various	Cashless inpatient coverage	USD 22 (KSH 1,920)	3.1M lives

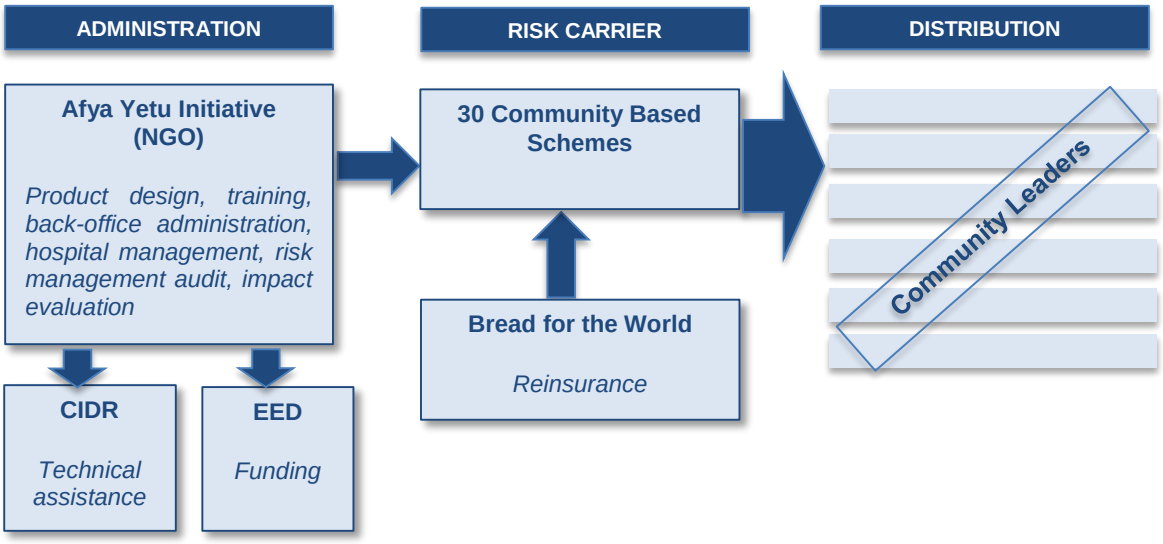
** Client Math study only for starred products.*

AFYA YETU INITIATIVE

Afya Yetu ("our health" in Kiswahili) is an NGO that oversees and implements 30 Community Based Health Insurance (CBHI) schemes in the Nyeri, Murang'a, and Kirinyaga districts of the Central Province. The schemes cover 9,786 households and 30,297 people, offering cashless hospitalization coverage with high coverage limits. Membership is mostly rural from a catchment population of about 125,000 people, indicating a participation rate of 24%. Afya Yetu markets and sells coverage through community-based agents. Each CBHI scheme takes on the risk without the involvement of a private insurer. The NGO itself is funded primarily by the German organization Evangelishcher Entwicklungsdienst (EED), and this funding is used for administrative purposes only - there are no premium subsidies. The NGO exists to facilitate the creation of the individual schemes and expects the schemes to become self-sufficient following these initial stages. There are seven hospitals in in the Afya Yetu network: four public hospitals and three private hospitals.

Each CBHI scheme has access to shared technical and administrative resources through Afya Yetu. In addition, risk is pooled across the network of schemes. Reinsurance is provided by Bread for the World that covers claims in excess of the budgeted amount. Figure 2 provides an overview of these stakeholders.

Figure 2: Overview of Afya Yetu Initiative



Afya Yetu offers three health insurance products:

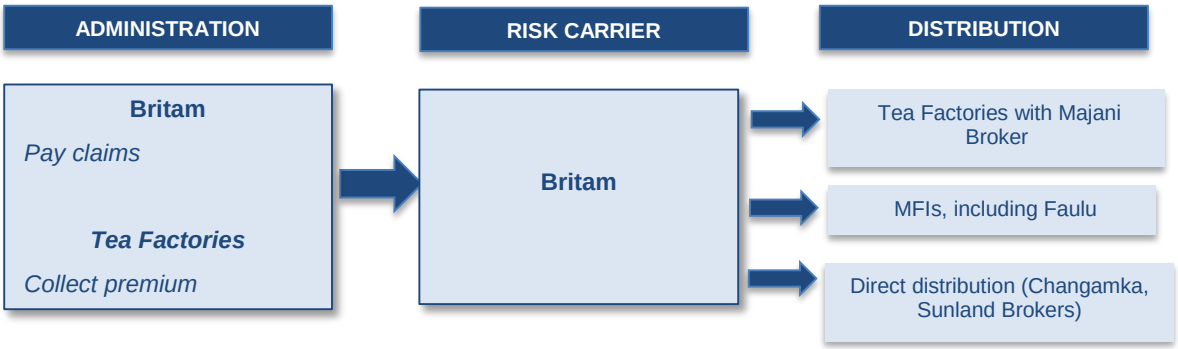
- **Product 1: Security with NHIF** adds additional cashless hospitalization coverage on top of NHIF insurance, allowing patients to access care at mission and private hospitals (while NHIF covers 100% of costs in a public facility, it only covers a predetermined daily rate in private hospitals up to a maximum of USD 29 per day). This product covers an additional USD 115 above NHIF coverage, for an annual premium of USD 4.35 on top of the USD 22 for NHIF coverage.
- **Product 2: Small Household** is Afya Yetu's staple product, designed specifically for low income households, and accounts for 71% of Afya Yetu members. The product offers cashless hospitalization coverage at an annual premium of USD 8 (KSH 700) per household, and that premium covers the contributor, spouse, and all children under 18. Patients are entitled to coverage at their closest network hospital, with a USD 3.43 copay and coverage up to USD 229 per hospitalization.
- **Product 3: Enlarged Household** allows members to add coverage for family members not included in Product 2. This includes the client's grandchildren and any children between 18 and 25 who are students. The premium is an additional USD 1.14 per person annually, over and above the standard costs for Product 2.

BRITAM AND THE MAJANI PROGRAM

British-American Insurance Company Kenya, or Britam, is a part of the global financial group British American, which has been operating in Kenya since 1965. It began to focus on microinsurance in 2007 and is now the largest private sector player in the health microinsurance segment. Britam's program is entirely commercial, and it receives no donor or government subsidy. Britam's management sees health microinsurance as a growth opportunity and intends to make a profit from its business, although at this point total health microinsurance premiums account for only 1% of the company's total premiums earned.

Britam partners with a number of different distributors, including the microfinance institution Faulu and the broker Changamka, although these distributors have produced limited enrollment to date. Britam also has an ownership interest in both Equity Bank and is its insurance partner; however, the Equity program is priced well above what could be considered microinsurance. Figure 3 below provides an overview of Britam's structure.

Figure 3: Overview of Britam's microinsurance structure



Britam's signature program is the Majani ("leaves" in Kiswahili) cashless hospitalization insurance product offered through the Kenya Tea Development Agency (KTDA) to its members. The product is also known as Kinga ya Mkulima ("farmer protection" in Kiswahili). KTDA, through its fully-owned subsidiary broker Majani, collects premiums from the tea farmers. Premiums are deducted from member's tea income either monthly or annually, depending on the member's preference. Countrywide, KTDA has 600,000 members, and Majani insurance covers roughly 20% of them.

Majani insurance is restricted to KTDA members between the ages of 18 and 74 and covers the KTDA member, spouse, and children under 18 (or up to age 23, if they are students). The product includes eight levels of coverage, each with a specified premium for the policyholder and a charge for each additional family member.[3] Each coverage level pays a daily hospitalization rate (with a maximum of 30 days per person per year), a surgery payout (with a maximum of one surgery per year), and a life insurance payout in the case of death. The lowest tier has an annual premium of USD 3.34 for each adult and USD 2.06 for each child, with a daily hospital benefit of USD 5.72, a surgery benefit of USD 57, and a death benefit of USD 57. The highest tier of coverage has a USD 21 annual premium per adult and a USD 14 annual premium per child, with a USD 48 daily hospital benefit, a USD 460 surgery benefit and a USD 460 death benefit. The product is completely cashless up to the coverage limit, above which patients are responsible for 100% of their hospitalization fees.

Majani members may seek care at any of a long list of in-network hospitals, both public and private, and they have the option to go to out of network hospitals and be reimbursed for out-of-pocket costs. Enrollment is continuous and year-round, with coverage delay or waiting periods that depend on treatment (for example, maternity care does not go into effect for nine months).

While similar in scope, the two insurance programs differ in cost, process and coverage. The MILK Project implemented two Client Math studies, one for each program, to better understand these differences and how they may affect the value of health insurance to the end clients.

[3] See Appendix A for details on rates and coverage levels.

3. "Doing the Math" for High-Cost Hospitalization

Most health microinsurance products in Kenya cover only hospitalization. Academic studies point to evidence that health microinsurance, in particular cashless coverage, reduces out-of-pocket health expenditure of low-income people (Pham and Pham, 2012; Jütting, 2004; Schneider and Diop, 2001; Ranson, 2001; Sepehri et al., 2006; Aggarwal, 2010). However, where insurance is less comprehensive, or encourages people to attend higher cost facilities, out-of-pocket spending might not differ from that of the uninsured (Lei and Lin, 2009; Smith and Sulzbach, 2008). This may happen because the insurance does not cover all medical costs or even indirect costs related to the health shock (Magnoni et al., 2012).[4] In an effort to better understand the value to clients of a basic hospitalization package, we studied how two such products are used to cope with the particularly large financial shock of a high-cost hospitalization.

3.1. Methodology

In July 2013, we interviewed 144 people who had recently undergone a high-cost hospitalization[5] in Kenya's Central Province. Some of these patients were covered by either the Afya Yetu or Majani hospitalization insurance products (described in detail in Section 2.3 above), and some had no insurance. Using MILK's Client Math methodology, we asked these former patients about the full direct and indirect cost of the hospitalization and how that cost was financed, exploring the role insurance played in helping clients deal with the shock.[6] Additionally, we assess the other barriers to health access mentioned above, determining the extent to which the insurance may have improved health care access by reducing non-financial barriers.

The study targeted four groups of patients that had recently been hospitalized for each study: patients whose stay was covered by insurance (Afya Yetu and Majani) and patients in the same communities with no hospitalization insurance. The respondents in both groups had experienced health shocks of similar magnitude and cost. To reach the insured populations, MILK researchers identified appropriate samples from hospitalization claims filed in March, April, and May 2013. The marketing and sales agents for each product contacted the insured respondents to schedule interviews. As these agents are community members themselves, they were also able to identify and contact uninsured individuals in the same communities who had recently experienced similar shocks to enquire their interest in and availability to participate in the study. Surveyors from the Nairobi-based firm Research Guide Africa conducted all surveys in Kikuyu, the local language.

3.2. Who are the respondents?

DEMOGRAPHIC AND SOCIOECONOMIC CHARACTERISTICS

Table 2 summarizes some of the important demographic and socioeconomic characteristics of all respondents. The majority of Afya Yetu insured respondents have the scheme's low-cost product for small households covering public hospital care.[7] There are no statistically significant differences across the insured and uninsured populations in the Afya Yetu study.[8] The income and expense indicators suggest that respondents are slightly above the average income level of much of the Kenyan population,

[4] Dalal et al. (2014) discusses evidence of the value of health microinsurance (including lessons from MILK's Client Math studies and other research) in more detail.
[5] At least 8,000 Kenyan shillings (USD 92) to someone paying out of pocket.
[6] In total, researchers visited 144 respondent homes and conducted interviews utilizing a smart-phone based survey. The survey instrument consisted of 60 detailed questions about the patient's hospitalization costs and how he / she financed those costs. Additionally, the insured respondents were questioned on their satisfaction with the product and how they might have financed the shock in the absence of insurance. The uninsured survey included a section exploring respondents' attitudes towards and perceptions of insurance. Respondents were interviewed on a voluntary basis using oral consent, with the option terminate the interview at any time.
[7] See Section 2.3 above for a full description of the products. 17% of respondents had Product 1, 78% had Product 2, and 6% had Product 3.
[8] Though not statistically significant, it is worth noting two disparities across the insured and uninsured populations: the uninsured sample is slightly older and has a higher household income. This age difference may be due to the fact that older uninsured individuals are more likely to go to the hospital despite their lack of insurance, whereas younger uninsured people may avoid hospitalization. The income disparity may be partially a product of the age difference, as part of the income disparity is due to higher pension income among the uninsured. It is also possible that higher income households choose not to purchase insurance; however, this is not supported by responses to our question of why the uninsured do not have insurance.

where Gross National Income per capita (in current local currency units) is USD 76 monthly.[9] This is to be expected as Kenya's Central Province is the second wealthiest in the nation.

Table 2: Socioeconomic characteristics of respondents

	Afya Yetu Study			Majani Study		
	Insured (n= 36)	**Uninsured** (n= 33)	**p**[10]	**Insured** (n= 40)	**Uninsured** (n= 35)	**p**
Age	47.0	55.6	0.094	55.8	48.2	0.053
% Women	61.1%	66.7%	0.632	60.0%	45.7%	0.216
Years of Education	8.6	8.8	0.827	8.2	8.8	0.434
Household Size	3.8	4.0	0.544	3.4	3.7	0.333
Monthly Individual Income (USD)	96.08	105.49	0.071	100.81	91.83	0.538
Monthly Household Income (USD)	127.12	155.61	0.059	168.41	132.20	**0.048**
Monthly Household Expenses (USD)	121.69	124.73	0.833	121.83	99.64	**0.029**

In the Majani study sample, we see a few statistically significant differences between the groups. The insured group reports slightly higher monthly income and expenses than the uninsured group. It is plausible that the insured respondents, as members of the KTDA cooperative, are more financially established than the uninsured respondents, which included non-members. Much like the Afya Yetu study population, the Majani study population exhibits slightly higher income levels than the average Kenyan. Respondents paid between USD 9 and USD 43 annually for premiums, with the majority paying USD 21.[11]

There is no statistically significant difference between the Afya Yetu and the Majani study groups in any of these demographic and socioeconomic indicators. Because of this, we can assume that both products target the same population. As such, the differences in costs and financing mechanisms between studies are likely not the result of socioeconomic or demographic indicators.

LIVELIHOOD STRATEGIES

Farming is the primary livelihood strategy for much of the Afya Yetu study population (100% of the insured and 94% of the uninsured population) and for 100% of the respondents in the Majani Study. Tea is the most important cash crop in the region, and the majority of respondents in both studies grow tea as their primary income source.

A surveyor speaks with an uninsured respondent in her home

Roughly a quarter of the insured and uninsured Afya Yetu study samples had secondary incomes, primarily as small business owners or casual employees. By contrast, only a small percentage of the Majani study sample had secondary income (13% of the insured and 14% of the uninsured), primarily as business owners or casual employees. Many respondents in both studies received remittances (28% and 40% of the insured in each study respectively and 45% and 29% of the uninsured), pensions, and dividend income from cooperative shares [12] (some 15-20% of all respondents). This

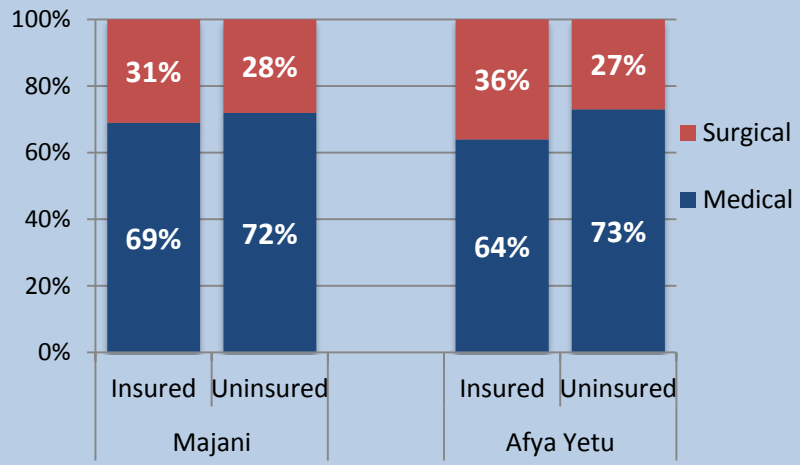
[9] n.d. Kenya. *The World Bank*. Web. 15 Aug. 2013 < http://data.worldbank.org/country/kenya>
[10] A p value of .05 or less indicates a statistically significant difference between the insured and uninsured groups.
[11] See Appendix A for a breakdown of product coverage and premium levels.
[12] Most SACCOS pay a dividend to members, who own shares of the SACCO. Farmers also receive a yearly bonus for tea sales from their buying center (the buying center purchases the tea from the farmers directly and then pays out a bonus after the tea is sold). It is possible that some farmers who reported dividend income were referring to this bonus, as the translation is a bit ambiguous.

illustrates the complex economic lives of this rural population, as well as the growing sophistication of the rapidly expanding Kenyan economy and rising middle class.

HOSPITALIZATIONS

Claims data from participating hospitals categorize a hospitalization as either medical or surgical. In both the Afya Yetu and Majani studies the ratio of medical to surgical hospitalizations is similar (see Figure 4). The length of hospital stay is comparable as well, averaging 8 days in the hospital for the insured in both study groups, 8 days for the uninsured in the Majani study, and 11 days for the uninsured in the Afya Yetu study.[13] Accordingly, we can expect that hospitalization costs across groups should be roughly similar, with the Afya Yetu uninsured sample having slightly higher average costs due to their slightly longer hospital stays.

Figure 4: Reasons for hospitalization



In the Afya Yetu study, the most common reason for medical hospitalization was normal childbirth, followed by hypertension and diabetes.[14] The most common surgical hospitalizations were for caesarean sections.[15] The majority of visits for both groups were unplanned emergency visits (64% of the insured and 94% of the uninsured). The fact that 36% of the insured's visits were planned may suggest better access to healthcare and a higher level of comfort in scheduling a hospital visit, as they knew that they would be able to afford it. Likewise, uninsured patients may have delayed until the condition became an emergency, avoiding an expensive hospitalization until absolutely necessary.

Hypertension was the most common medical hospitalization in the Majani study, followed by diabetes and stroke.[16] The most common surgical procedures in this study were cesarean sections, followed by fibroid and tumor removal. The majority of visits for both groups were emergency visits (89% of the insured and 91% of the uninsured). We do not see the same pattern of pre-planned visits among the Majani insured as we do among those insured by Afya Yetu, which may hint at lower perceived value. Below we outline the total cost of these illnesses to the Majani insured and find that they received less support from insurance with direct medical costs than Afya Yetu patients. This is consistent with the lower ceilings Majani has on coverage and may have been a barrier to planning needed surgeries, as patients instead waited for medical emergencies to get treatment.[17]

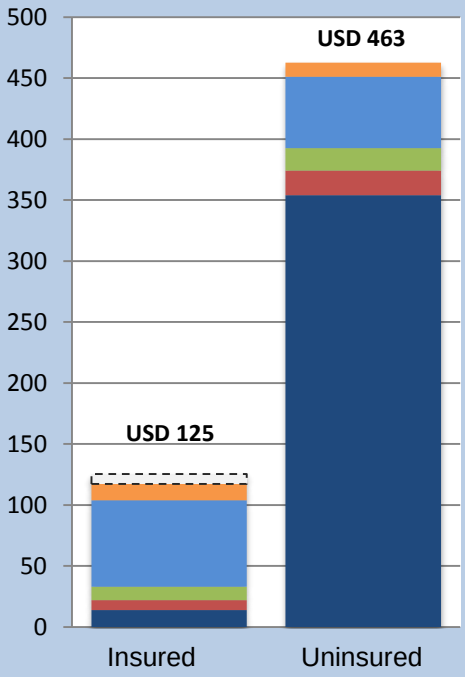
3.3. How much did the illness cost?

We calculated the direct, indirect, and opportunity costs of high-cost hospitalizations for the respondents of both studies. As evidenced in Figures 5 and 6, both patients insured by Afya Yetu and patients

[13] The range of days for hospitalizations across all 4 groups was 2-30 days.
[14] Other common reasons for medical hospitalizations were broken bones, pneumonia, stroke, tuberculosis, cancer and meningitis.
[15] Other surgical hospitalizations included tumor removal, appendix extraction and eye surgery.
[16] Other common medical hospitalizations were for typhoid, fractures, ulcers, burns, and tuberculosis.
[17] We analyzed the possibility that the planned surgeries under Afya Yetu may have been primarily C-sections, thus creating moral hazard. However, we found no evidence to support this possibility among our respondent sample.

insured by Majani enjoyed cost savings as compared to their uninsured counterparts, and Afya Yetu members incurred the lowest costs overall.

Figure 5: Average costs, Afya Yetu study



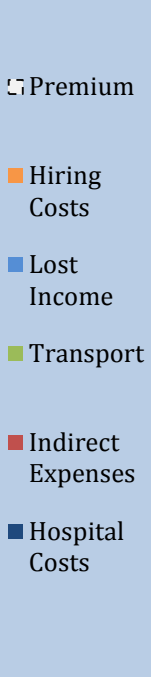
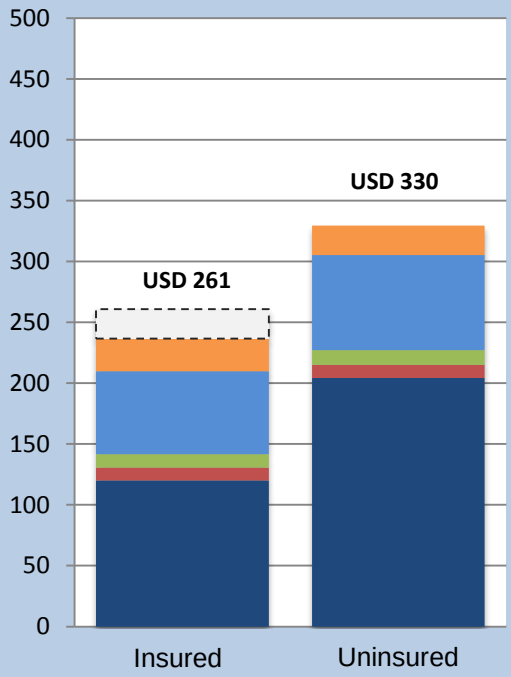


Figure 6: Average costs, Majani study



DIRECT HOSPITALIZATION COSTS

Direct hospitalization costs include all out-of-pocket costs (but not the cashless coverage for the insured) incurred during the patient's primary hospitalization and any follow-up admissions: service fees, lab tests, supplies, medicines and food at the hospital. In the Afya Yetu study,[18] these costs were 25 times higher for uninsured patients than for the insured patients. On average, Afya Yetu members paid just USD 14 in hospitalization costs, while the uninsured paid an average of USD 354. In fact, 74% of Afya Yetu insured patients incurred no direct hospitalization costs at all: their costs were fully covered by the insurance. Hospital type and illness were comparable between the insured and uninsured groups, with the insured group having more normal childbirths and cesarean sections, and the uninsured group staying in the hospital for slightly longer. While these two factors may play a role in the cost differences, the nature of Afya Yetu coverage dictates that members would have had all or most of their costs covered even if they had had more expensive procedures and / or been hospitalized longer. Therefore, we can conclude that insurance is the main driver of these cost differences. Including the average annual premium cost of USD 8 for comparison purposes, Afya Yetu members saved an average of USD 328 in comparison to their uninsured counterparts.

Unlike in the Afya Yetu study, nearly all respondents[19] in the Majani study incurred direct hospitalization costs: 87% of the insured and 100% of the uninsured. The insured population paid, on average, 59% of what the uninsured patients paid for their hospital stay, incurring USD 120 in hospitalization costs, while the uninsured sample paid an average of USD 204. If we include the average annual Majani premium cost of USD 21 in the hospitalization costs for comparison purposes, Majani members still have an average savings of USD 63 over their uninsured counterparts. While this is an appreciable difference, the magnitude of savings is considerably lower than it was for Afya Yetu members.

It is notable that that the uninsured in the Afya Yetu study had higher costs than did the uninsured in the Majani study. This is likely due to the fact that the uninsured Afya Yetu population stayed in the

[18] Two outliers were eliminated as their reported costs and financing amounts heavily skewed the averages in this small sample.
[19] Four outliers were eliminated as their reported costs and financing amounts heavily skewed the averages in this small sample.

hospital for an average 3.4 days longer than the uninsured population in the Majani study. If we compare the Afya Yetu insured population to the Majani uninsured population, and include the premium cost, Afya Yetu members saved an average of USD 182 over this uninsured population – roughly three times what Majani members saved as compared to this same group.

TRANSPORT AND OTHER INDIRECT COSTS

Transport costs for the Afya Yetu study were slightly higher among the uninsured sample (USD 18 for the uninsured and USD 11 for the insured), though transportation methods were similar (taxis were most common, followed by buses). This cost difference is likely due to the fact that Afya Yetu members are required to go to their assigned hospital, which is always the in-network hospital closest to them. The uninsured population reported being more likely to choose a hospital based on reputation and positive past experiences, and therefore may have traveled further and incurred higher transport costs.

In the Majani study, transport costs were comparable between the two groups, with the insured group paying USD 11 and the uninsured paying USD 12 for transport. The majority of patients took a taxi to the hospital. The uninsured population was more likely to make a decision about which hospital to attend based on price, while the majority of the insured population chose which hospital to go to, based on proximity and good past experiences rather than cost.

Other indirect costs – those associated with the illness but not directly with the hospitalization – include doctor visit fees, lab tests before or after the hospitalization, or a special diet before or after hospitalization. Such indirect expenses in the Afya Yetu study were lower among the insured patients, who paid an average of USD 8.19, than for the uninsured, who paid USD 20. The majority of the cost incurred for the uninsured group was in post-hospitalization specialty diet costs (47% of the uninsured reported paying for a special diet after hospitalization). It is likely that the uninsured group disproportionately faced these indirect costs as the insured group was hospitalized more frequently for giving birth, and such a hospitalization would not necessitate a special diet. In the Majani study, indirect expenses were identical, averaging USD 11 for both groups. Both incurred the majority of these costs after the hospitalization in the form of doctor and medicine fees.

OPPORTUNITY COSTS

Lost income due to missed work**,** or the opportunity cost associated with the hospitalization, was slightly higher for insured patients in the Afya Yetu study. Insured patients lost an average of USD 71 in income while the uninsured lost an average of USD 59. Additionally, 39% of the insured sample and 25% of the uninsured sample incurred costs while hiring replacement labor, for averages of USD 14 and USD 11, respectively. This figure represents the cost of hiring replacement labor for both paid and unpaid activities. The latter was incurred solely by female patients who were unable to keep up with household chores during and after their hospitalization.

In the Majani study, the uninsured reported slightly higher lost income due to missed work, despite missing fewer days of work (the uninsured sample missed 19 days on average, while the insured missed an average of 32 days), and despite reporting lower income in the first place. The insured sample lost an average of USD 68 in missed work income, while the uninsured lost an average of USD 78.

3.4. HOW DID THEY PAY?

To understand how these respondents dealt with their hospitalization costs, we consider six primary financing strategies in addition to insurance. These strategies are formal and informal loans, gifts (either in cash or in kind), reduced spending, use of personal or household income, use of savings, and sale of assets. Figures 7 and 8 show the average financing strategies used by insured and uninsured respondents in both studies.

Figure 7: Financing strategies, Afya Yetu study

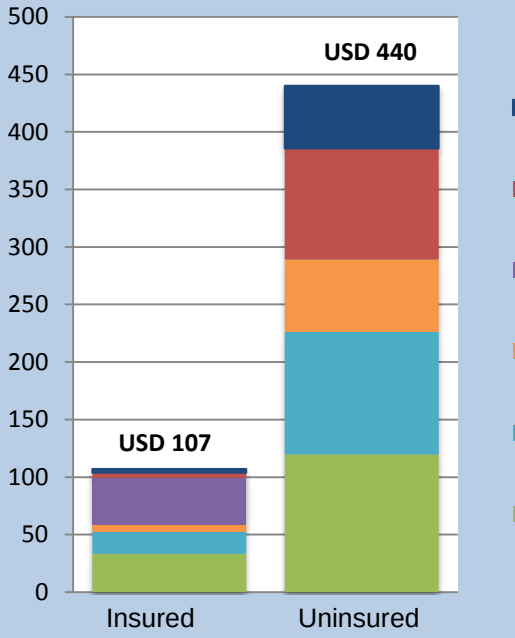
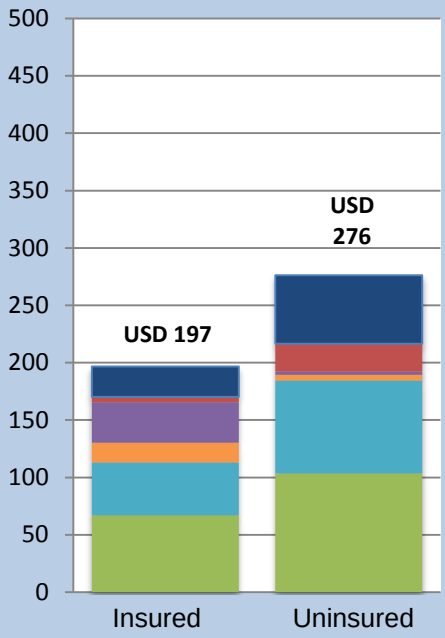


Figure 8: Financing strategies, Majani study



DIFFERENCES IN FINANCING STRATEGIES

The financing strategies of Afya Yetu members and their uninsured counterparts differed appreciably. In contrast, Majani members financed their hospitalizations with strategies that were comparable to those used by uninsured patients in both groups. All respondents financed slightly less than their total costs, potentially because they did not cover all of their lost income.

The patients with Afya Yetu insurance **reduced spending** on food, education, and/or other healthcare needs to fund a large portion - 38%[20] - of their total financing. It is likely that this option was available to Afya Yetu members because the total cost of their hospitalization was quite low, and they could feasibly finance it by spending less on other expenses for a short time. The uninsured population had far higher costs, and none of them reduced spending as a financing mechanism. Reduced spending may have been an unrealistic strategy for financing the high costs that the uninsured incurred.

Much like in the Afya Yetu study, insured respondents in the Majani study reduced spending in greater amounts than the uninsured respondents: spending cuts make up 18% of the total amount that insured respondents financed and only 1% of what uninsured respondents financed. Again, this option was likely available to the insured group as their costs were lower. However, as their costs were not as low as those of Afya Yetu members, reduced spending played a smaller role in financing Majani member costs.

Respondents in both studies relied heavily on **gifts and fundraising**. This is a common financing mechanism in Kenya for any financial shock, and by far the most popular method used by all study groups. Roughly 83% of the uninsured and 60% of the insured in both studies used gifts and fundraising as a major funding mechanism, including a small percentage sent from migrants outside the community. For each group of respondents, roughly one-third of total financing was comprised of gifts.

After gifts, **personal and household income** was the next most frequently used financing mechanism, with roughly 60% of both uninsured populations and 50% of both insured populations turning to this strategy. In the Afya Yetu study, insured respondents raised 18% of their financing through income, and

[20] The percentages used in this section refer to percent of total financing reported, not percent of total cost reported. As costs and financing line up well in this study, percent of financing is a good indicator of percent of total cost.

uninsured respondents financed 24% through income. The majority of income used in the Afya Yetu study was not the patient's own income but rather income from other adults in the household. This makes sense, as the patient was unable to work during hospitalization, and it illuminates the fact that a large health shock affects the finances of entire households. Income was an important strategy for respondents in the Majani study as well, making up 23% of the amount that the insured financed and 29% of the amount that the uninsured group financed.

The uninsured Afya Yetu sample relied more heavily on **loans** than did the insured sample**,** taking out loans to finance an average of 34% of their hospitalization, while the insured sample financed just 7% of their health shock with loans. The Majani insured financed over twice as much of their costs with loans as the Afya Yetu insured. Loans played a larger role in financing for the uninsured as well: those without insurance financed 31% of their shock with loans, while those with Majani insurance financed 15% with loans. In both studies, loans played a bigger role in financing for the uninsured samples then it did for the insured.

For the uninsured Afya Yetu sample, 14% of financing came from **savings**, while the insured group only raised 6% of their financing through savings. None of the respondents in the Afya Yetu study sold assets to finance their costs. Majani members, on the other hand, used more of these difficult strategies than the Afya Yetu members. They used more savings (and in a few cases asset sales) than their uninsured counterparts, perhaps because Majani members were more likely to have savings and were somewhat more financially stable than their uninsured counterparts.

MORE INDEPENDENT FINANCING AMONG THE INSURED

Insured patients covered by both programs were able to finance their hospitalization relatively independently. In the case of Afya Yetu, the insured mostly reduced their spending and fundraised small amounts. Their uninsured counterparts relied most heavily on loans, a mechanism that may have long-term impact on their finances. They were also forced to fundraise larger amounts and to rely on more household income, a mechanism that has consequences for their entire family. Figure 9 and Figure illustrate that the majority of both the insured and uninsured populations in the Afya Yetu study utilized two financing mechanisms (including insurance). This means that, on average, insured respondents only used one financing strategy in addition to insurance, presumably using fewer difficult strategies as per the discussion above.

Figure 9: Afya Yetu study number of financing strategies

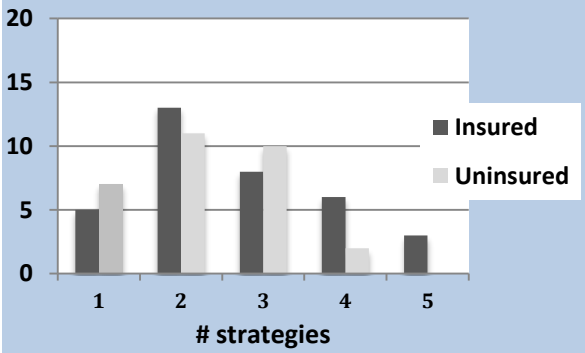
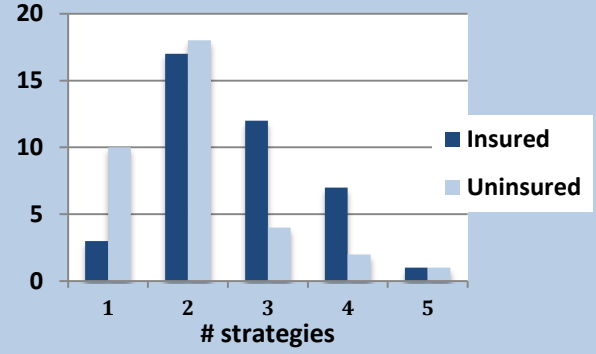


Figure 10: Majani study number of financing strategies



Unlike the pronounced differences in financing strategies seen in the Afya Yetu study, Majani members and their uninsured counterparts used very similar financing mechanisms, with a few minor differences. In the Majani study, the majority of the insured also only required one financing mechanism after insurance and both groups mostly used two mechanisms including insurance. This allowed the better-off Majani members to finance more of their shock by reducing spending and utilizing savings, while the uninsured took out more and larger loans.

3.5. SATISFACTION AND SERVICE VALUE

As a network of CBHFs, Afya Yetu has a high-touch feel that is unique to this type of small community-based product. The agents know their communities well, and the administration is closely connected to the members. The insured report that they are very happy with Afya Yetu's coverage, customer service, and costs and are satisfied with the product.

The majority of Majani members were generally satisfied with the product as well. However, many were disappointed in the level of coverage (which had lower ceilings than the Afya Yetu product) and 60% reported paying more than they had expected (compared to 31% of Afya Yetu members). These perceptions mirror our findings from the Client Math studies. Several respondents did not have a good idea of what coverage they had going into the hospital. Additionally, some patients complained about the 30-day hospitalization maximum and one surgery-per-year limit.

Insured patients in both studies (as well as uninsured patients) reported similar hospital quality. While these products are not accompanied by quality improvements of facilities as some health microinsurance programs are, in some cases they give patients access to facilities that they otherwise would not be able to afford. Moreover, the products likely help strengthen the finances of hospitals (and in doing so, the quality as well) by ensuring that the hospitals are paid in full.

3.6. CLIENT VALUE LESSONS

While both products offered value to clients, the Afya Yetu product was better understood by respondents and reduced costs to the insured more than the Majani product. This was likely due to two factors: the greater level of coverage of the product and its simplicity (fewer restrictions and ceilings). This helped provide greater financial value and allowed clients to better predict what costs of the hospitalization would not be covered. The larger number of planned surgeries as opposed to emergency surgeries in our small sample begins to suggest that this had some behavioral effects in terms of encouraging patients to schedule needed medical interventions rather than waiting for an emergency response. Planned, early treatment can generally be expected to result in better quality of care and better health outcomes than treatment that is delayed until the point a critical health intervention is needed. These planned surgeries covered cancer, eye surgeries, hernias and C-sections – medical interventions that could be delayed until more critical health interventions are needed, but with potentially serious health consequences.

The insured respondents in both studies were able to finance their costs more independently than uninsured respondents by reducing spending and using income. Reduced spending and income use are more realistic coping mechanisms for the lower costs faced by the insured groups, and likely would not be sufficient in covering the uninsured patients' costs. These were especially important strategies for Afya Yetu members, whose hospitalization costs were very low. As the Majani insured had higher costs than the Afya Yetu insured, their financing strategies mirrored those of the uninsured more than the Afya Yetu insured, and accordingly, Majani patients took out more loans and asked for more outside help.

Support from friends and family (gifts) is a traditional approach to financing a major shock, and gifts played an important financing role for all study respondents. However, this strategy was by no means sufficient: respondents financed less than 30% of their costs, on average, in this way. This implies that ***insurance can provide a complementary strategy to this traditional approach.*** Similarly, we found that insurance complemented remittances for financing this hospitalization; insurance did not appear to crowd out remittances, but instead provided valuable additional support (Sobol et al., 2014).

While both Afya Yetu and Majani offer substantial cost savings to clients, Afya Yetu members faced dramatically lower hospitalization costs (USD 14) than both Majani members (USD 120) and their uninsured counterparts. This implies that ***Afya Yetu's CBHF model may offer more value for this low-income population*** then the "traditional" insurance model of Majani.

The contrast between the client value of the Afya Yetu scheme and Majani's calls attention to some of the trade-offs between voluntary community-based microinsurance schemes versus commercial schemes through traditional insurers. Majani represents a commercial model of health insurance that provides value in the form of flexibility and convenience: insurance holders can choose their level of

coverage as well as which hospital they wish to attend, and premiums can be easily deducted from paychecks (in this case, tea grower’s cooperative distributions). Afya Yetu, on the other hand, represents a community-based model that offers less flexibility but a significant cost savings and lower premiums. For the low-income households that purchased this product, the trade-off between flexibility and savings seems to have offered good value. In the case of the Majani program, it struggled to offer sufficient coverage and communicate the relatively complex product details effectively to its low-income clients.

4. Business Case

MILK completed an in-depth analysis of the business case for health microinsurance in Kenya, focusing on the business case faced by the two health microinsurance providers that offer the Afya Yetu and Majani programs discussed above. In the case of the Afya Yetu Initiative, we studied the profitability of the scheme as a whole, examining the role of donor support in building and sustaining a business case. We also studied the profitability of health microinsurance operations of the commercial insurer Britam, which underwrites the Majani program as well as various other health microinsurance products.

4.1. Methodology

The MILK team closely examined financial outcome data for these programs over the 5-year period 2008-2012 and held detailed interviews with management of these insurers and other key stakeholders to provide additional context and nuance.[21] In the course of our investigation we spoke with insurance company management of CIC, Britam, UAP, Pioneer, Pacis and the Association of Kenyan Insurers. We also met with NGOs and MFIs working in health microinsurance, including PharmAccess, Afya Yetu, Faulu, Jamii Bora, and the Kenya Community-Based Health Finance Association (KCBHFA). In addition, we spoke with brokers such as Sunland and Eagle Africa, management of the National Hospital Insurance Fund's Informal Sector scheme, the Kenya Insurance Regulatory Authority (IRA) and several long-time industry observers and analysts.

4.2. The Kenyan health insurance context

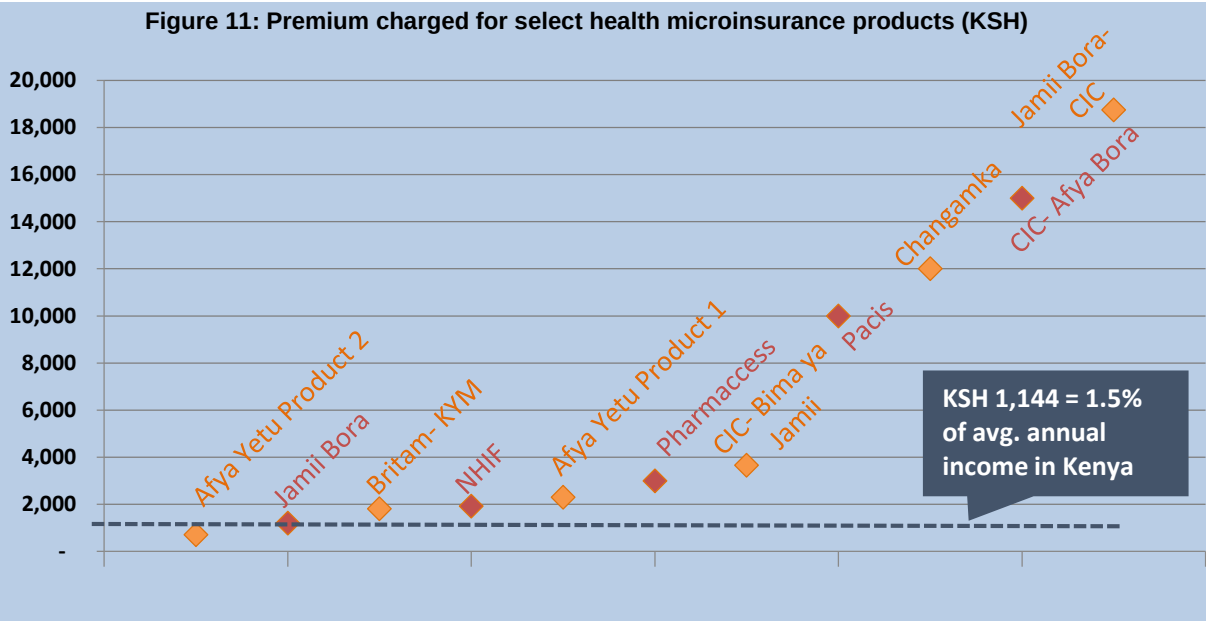
The last ten years have seen much movement among insurers and plan sponsors in Kenya's private health microinsurance market, not all of it promising:

- Pioneer Assurance Company entered the market in 2009 but pulled out by 2012.
- UAP Insurance Company withdrew from the market in 2011.
- CIC experimented with three different iterations of health microinsurance between 2003 and 2013 and suffered from loss ratios as high as 300%; it also reports uptake as low as 1% of its target market.
- Despite a national footprint of 1.1 million members, MFI distribution has produced limited results and generally poor loss ratios.
- The MFI Faulu has had three different insurer partners and has just recently achieved participation of 12% of its members despite eight years of effort.
- Jamii Bora Trust, an HMI established in 2001, which at its peak had 300,000 members enrolled in its health microinsurance scheme, was recently shut down due to regulatory constraints. Jamii Bora now has just 200 members enrolled in a partner-agent scheme.

These market movements must be viewed in the context of the NHIF program for the informal sector, which is heavily subsidized and growing fast (covering over 3 million lives as of June 2013). The NHIF and most private health microinsurance programs in Kenya cover only inpatient care, though a select few (including Changamka and Pacis) are beginning to experiment with outpatient benefits. As seen in Figure 11, these innovative programs are also part of a sharp upward trend in pricing, placing many programs beyond the reach of the poor so that they could no longer be categorized as microinsurance.

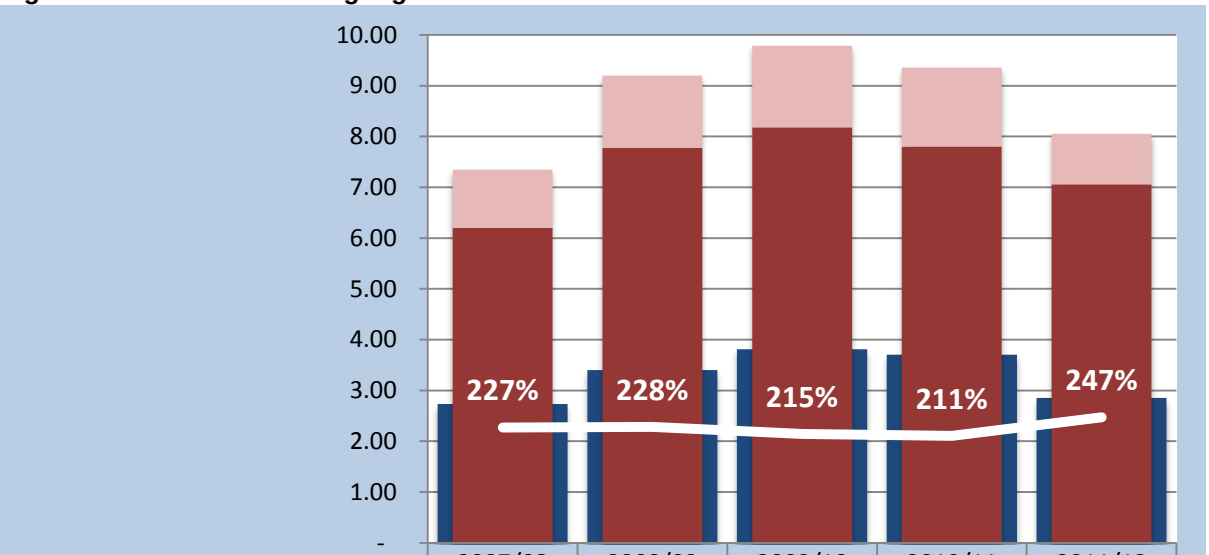
[21] This paper takes a similar approach to MILK's intensive study of the business case for HMI in India (Koven et al., 2013).

Figure 11: Premium charged for select health microinsurance products (KSH)



Health insurance is a challenging line of business in Kenya, as it is elsewhere; health insurance often has higher loss ratios than other lines of business in both the traditional and micro sectors. There are many examples of unsustainable loss ratios in health microinsurance programs, many of these associated with MFI sponsored programs, but also in the informal sector program of the NHIF. As with RSBY in India, the scale of the NHIF federally subsidized program (described in detail in Section 2.2 above) is dramatically larger than its private HMI counterparts. It also requires a subsidy due to its loss ratios, which are well above 200% in each of the years for which we collected data (see Figure 12).

Figure 12: NHIF financial highlights



	2007/08	2008/09	2009/10	2010/11	2011/12
Premium Per Member (USD)	2.73	3.40	3.81	3.70	2.85
Expenses Per Member (USD)	1.15	1.43	1.60	1.56	1.00
Claims Per member (USD)	6.20	7.77	8.18	7.80	7.06
Loss Ratio (%)	227%	228%	215%	211%	247%

NHIF's annual premium charged of KSH 1,920 (currently USD 22) per family has not changed since 1990 (when the USD equivalent would have been around 28) in spite of these high loss ratios. The philosophy of NHIF is that as a social insurer, it is not focused on making profits from the voluntary

segment, as losses can be partially offset by the compulsory product in the formal sector. Further, NHIF has no waiting period for enrollment, although it charges a punitive late renewal penalty of 5 times the un-renewed premium to guard against renewal for a known hospitalization case. If renewal is sought after a one-year lapse period, the NHIF policyholder is subjected to a 2-month waiting period with no penalty charged.

If the current approach continues, it seems that NHIF will continue to dominate the market in a way that makes it difficult for private, unsubsidized programs to compete. However, it is not clear how long the Kenyan government can sustain both the explicit and implicit subsidies in NHIF, particularly given its goal of expanding the population covered as well as the recent addition of maternity benefits and the intention to add outpatient benefits.

Despite the struggles insurers have faced to date in offering health microinsurance in Kenya, the market holds promise. Unlike in India, distribution and administrative expenses are reasonably contained, ranging from 25% to 50% of premium income (among the private health microinsurance programs we studied in India, the composite administrative costs were 80% of premium (Koven et al., 2013)). Commercial carriers appear anxious to compete for the low income segment while there are a dozen or more CBHIs active as well as a contingent of donor groups including the ILO, PharmAccess, Centre Internationale de Developpement et de Recherche (CIDR), Bread for the World (BFTW), and others.

4.3. Afya Yetu Initiative

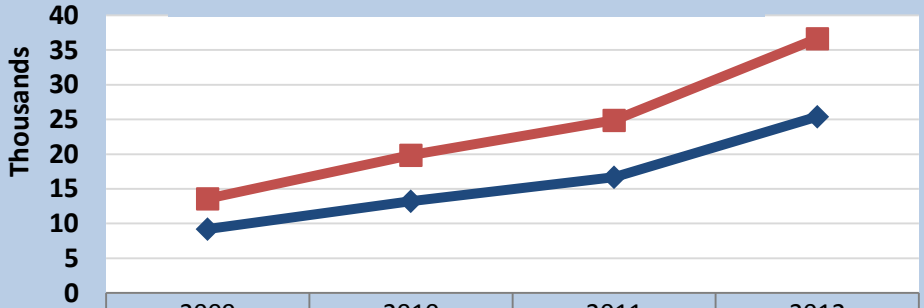
PROGRAM

The Afya Yetu Initiative is comprised of 30 different CBHFs that offer health microinsurance using shared technical and administrative resources. The initiative is supported by donor funding and technical assistance at the administrative and reinsurance levels. This structure, and the insurance products offered through it, are described in more detail in Section 2.3 above.

ANALYZING THE BUSINESS CASE

Scale. As Figure 13 demonstrates, Afya Yeti's program is growing but remains modest in scale, reaching an enrollment of 25,000 people as of year-end 2012. This somewhat limited scale reflects an uptake rate of 24% among 30 community groups of about 4,000 people each (resulting in fewer than 1,000 enrolled members per group, on average). Voluntary, community-based open enrollments take place once each year with a 30-day waiting period for coverage to take effect. To avoid adverse selection, the program limits enrollment to November and December, with coverage beginning the following January. Premium is generally paid annually in advance, although some of the schemes allow installment payments. KCBHFA reports that Afya Yetu is the largest group of CBHIs in Kenya. Its ambitious goal is to reach 60 schemes and 65,000 lives by 2015. Management believes that this growth will come primarily from its low cost product, which offers a more affordable alternative to NHIF. Outreach to coffee farmer societies has yielded positive initial results to support this expansion, nearly tripling the membership base from 2009 to 2012.

Figure 13: Afya Yetu growth



	2009	2010	2011	2012
Covered lives	9,192	13,224	16,680	25,396
Net Premium (USD)	13,591	19,858	24,888	36,642

Revenues. Members pay a premium ranging from USD 8 (KSH 700) per year for the low cost plan up to USD 26 (KSH 2,300) for the plan that includes NHIF coverage (USD 4 (KSH 380) of this premium reverts to the community scheme while the remainder is remitted to NHIF). Afya Yetu receives no commission for distributing NHIF. The initiative receives donor support, however, in two forms. First, Afya Yetu itself receives technical assistance from the French NGO CIDR to support the administrative services it supplies to the 30 CBHIs. Second, for the low cost plan where risk is self-insured by the CBHFs, Bread for the World provides reinsurance protection that applies once claims ratios are 110% to 140% of targeted claims ratio. However no premiums are directly remitted to BFTW as happens in a conventional reinsurance arrangement. The scheme sets aside a reserve equal to 2.5% of the member contribution which acts as additional protection should claims exceed this budgeted amount but not be covered by the BFTW reinsurance.

Costs. Administrative *e*xpenses are incurred in two ways: first, each scheme has costs supported by its own retention of premium; second, costs borne by Afya Yetu to support the schemes are subsidized by the donor. Costs at the scheme and Afya Yetu level are about 50% each. The community schemes receive 15% of premium for enrollment and program support. The remaining 85% goes to the pooled network of the 30 schemes; from that 17.5% goes to administration while 65% is budgeted for claims and 2.5% for reserve. The reserve is only resorted to in the event that the claims ratio exceeds 140% (i.e. when donor money used to pay claims is exhausted).

As Table 3 indicates, claims ratios have risen over time as utilization of hospitals has increased. The overall target loss ratio of 65% was exceeded in 2011 and 2012. The low cost program (Product 2), which is fully self-insured, has had the highest loss ratios. As a result, Afya Yetu increased the premium for the low cost plan in 2012 from KSH 500 to KSH 700 (USD 6 to 8). In addition, a 20% co-insurance provision was instituted. Impressively, 89% of policies were renewed even after the premium increase.

Table 3: Afya Yetu claims ratios by product

	Product 1	Product 2	Product 3
2010	23.8%	80.3%	71.4%
2011	12.7%	86.5%	48.5%
2012	26.6%	111.0%	17.2%

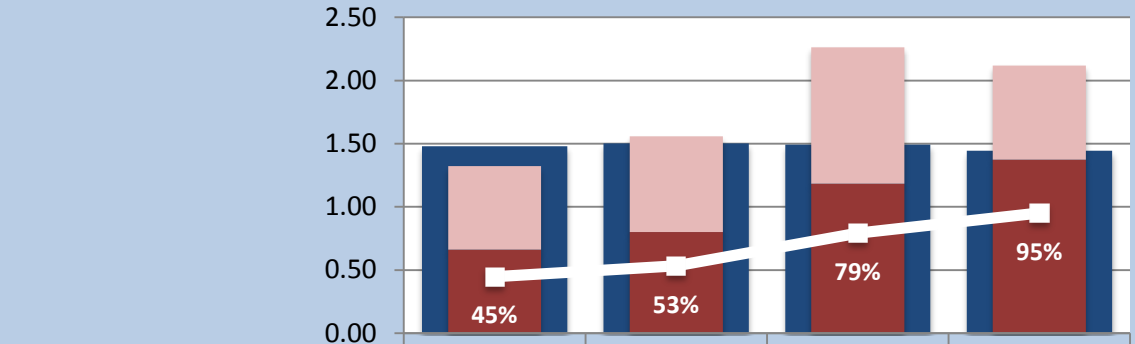
KEY FINDINGS ON AFYA YETU'S BUSINESS CASE

The Afya Yetu schemes are characterized by modest scale, with voluntary enrollment of small community-based populations. The scheme's average uptake rate of 24% seems reasonable given a voluntary enrollment; therefore, Afya Yetu will likely need to significantly expand the number of communities it serves to achieve its ambitious goal of doubling in size in the next few years. If it can gain access to additional communities in its service area, Afya Yetu's track record of high renewal rates (80% - 90%) will certainly help support a business case. Yet it must also be able to accomplish this expansion without greatly adding to the cost Afya Yetu incurs to support the schemes.

Afya Yetu's focus on its low cost product makes sense from a competitive positioning standpoint. It is much more affordable for the poor than is the NHIF offering (with an annual premium of USD 8 vs. USD 22) or, for that matter, most other group programs, including the Majani program. Afya Yetu's low cost plan is designed to support claims of up to USD 231 (KSH 20,000) per hospital visit in contracted public facilities only. NHIF, by contrast, has no financial limit to claims (its limit is pegged to 180 days cumulative hospitalization per year) and covers both public and mission hospitals.

However, our research for the MILK Project has found that low premiums don't always support a business case. Low premiums often come with high administrative expense loads (relative to premium). In the case of Afya Yetu, expense ratios are manageable, but only because they are subsidized by donor support. Unless that donor support is made permanent, or Afya Yetu can grow significantly and realize significant economies of scale, it will be difficult to establish a business case for this model.

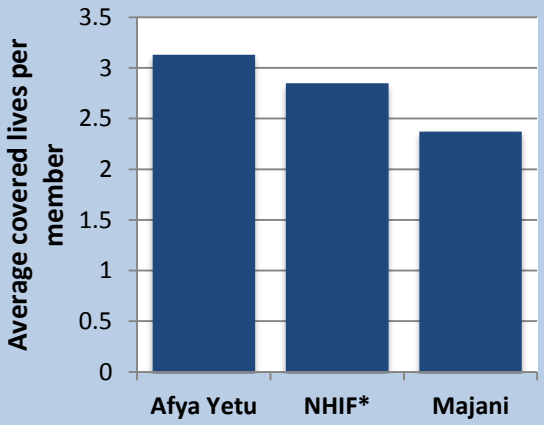
Figure 14: Afya Yetu financial highlights



	2009	2010	2011	2012
Premium Per Member (USD)	1.48	1.50	1.49	1.44
Expenses Per Member (USD)	0.66	0.76	1.08	0.74
Claims Per Member (USD)	0.66	0.80	1.18	1.37
Loss Ratio (%)	45%	53%	79%	95%

In addition, the escalating loss ratio on the low cost product (See Table 3 above) is now at an unsustainable level and requires donor support through the BFTW reinsurance program. This is of particular concern as growth of the program is expected to come from the low-cost product. Afya Yetu may be something of a victim of its own success: as members become better educated about the product and more accustomed to accessing coverage, claims have increased (see Figure 14). In addition Afya Yetu covers more lives (members plus dependents) than either Majani or NHIF (see Figure 15), again most likely a result of the intensive grassroots enrollment and education effort.

Figure 15: Covered lives per member (2012)

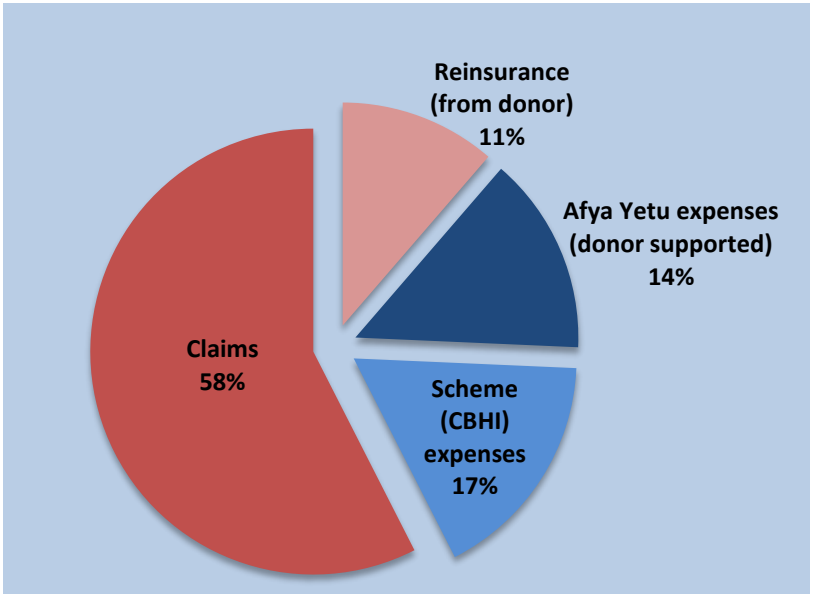


As the coverage matures, claims results should smooth out, but steadily escalating loss ratios remain a serious concern. It is possible, even likely, that the 24% participation rate has led to anti-selection. Afya Yetu reports that 72% of its hospital admissions are female members,[22] which most likely reflects a high level of maternity claims. In addition, the program has no upper age limit for cover, which may contribute to its high utilization.

The Afya Yetu program enjoys strong donor support, which it needs to balance its financials. Management's goal is to get the schemes fully sustainable at the local level. The schemes currently get both administrative and claims support, which comprise 25% of total spending (see Figure 16). Escalating loss ratios, however, threaten management's goal of sustainability. The hoped-for expansion to additional communities and coffee societies could help as risk is pooled at the network level, whereby each CBHF is pooled with all others for claims experience. The sharing of claims experience parallels the sharing of technical and administrative resources at the program's hub. Our work on the MILK Project has identified success in a similar shared resource model in India's Uplift program, which supports a modestly scaled program (125,000 members) in the context of much larger publicly-supported programs (MILK Brief #26).

[22] This mirrors the findings of Kenya Ministry of Health (2009) at a national level, which found that females were hospitalized more often (33 admissions per 1,000 population) than males (19.8 per 1,000 population) during the study period.

Figure 16: Afya Yetu's donor- and scheme supported costs



4.4. BRITAM

PROGRAMS

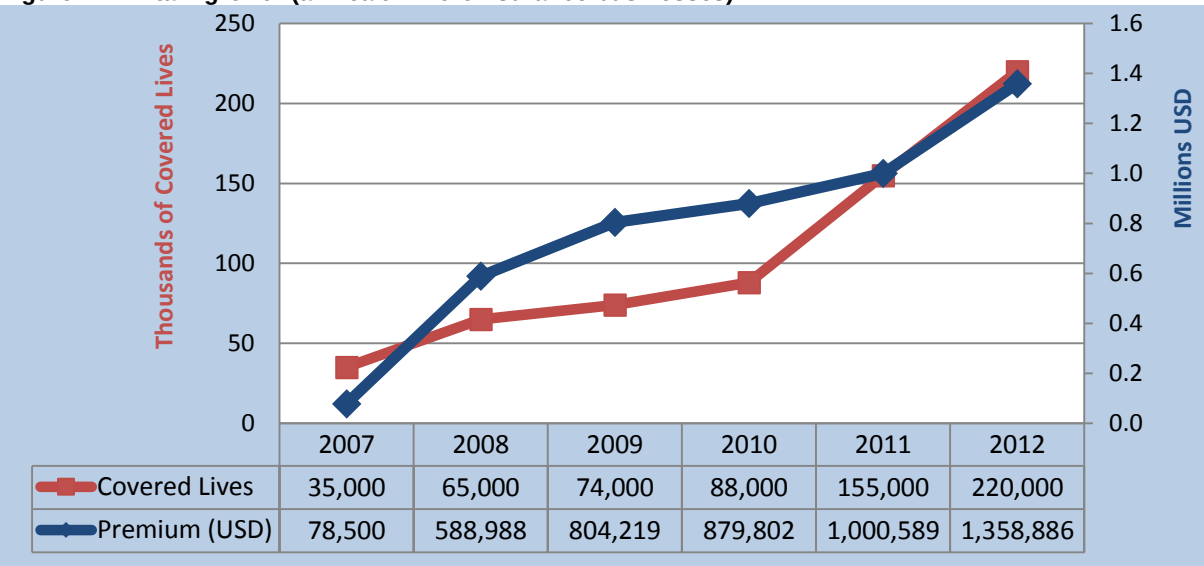
Britam is a large, multinational commercial insurer that has been offering microinsurance in Kenya since 2007 and is now the largest private player in the sector. Britam offers microinsurance through a number of different channels, including MFIs and brokers. One such distributor is the broker Majani, which distributes the Majani product that we evaluated from a value perspective in Section 3. Britam and the Majani program are described in more detail in Section 2.3 above.

ANALYZING THE BUSINESS CASE

Scale. As Figure 17 demonstrates, Britam's health microinsurance has grown at an accelerated pace since 2010, reaching an enrollment of 93,000 policies and 220,000 lives by 2012. Growth from 2007 through 2009 had been modest, as the original HMI product gained limited acceptance with its bundled package of 80% life and 20% medical. In 2010, in response to customer demand, the cover was amended to cover mostly medical expenses and now covers children and maternity.

The Majani program is currently the largest private health microinsurance program in Kenya. Enrollment is voluntary, but tea farmers are approached on a group basis at tea collection stations, which helps to minimize enrollment costs as well as adverse selection problems. Premiums are deducted from tea factory payments to farmers. There are 550,000 tea farmers in the Nyeri region, and at the current uptake rate of 17% in that region, about 93,000 are enrolled. Britam's goal is to increase enrollment to 160,000.

Figure 17: Britam growth (all health microinsurance businesses)

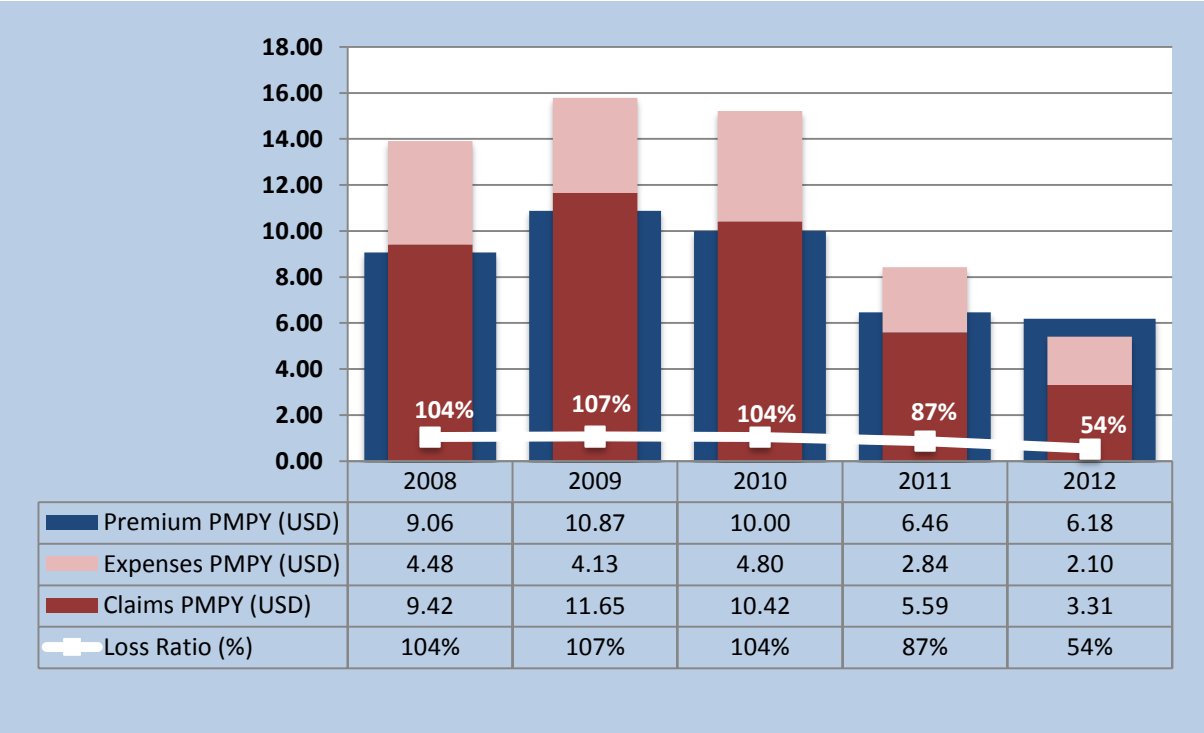


	2007	2008	2009	2010	2011	2012
Covered Lives	35,000	65,000	74,000	88,000	155,000	220,000
Premium (USD)	78,500	588,988	804,219	879,802	1,000,589	1,358,886

Revenues. Revenue for the Majani product is derived entirely from the farmers' premium contributions of on average USD 21 (KSH 1,800) annually per policy.

Costs. From Majani premium receipts, the distributor KTDA gets 5% and gives 2.5% to the tea factory, which can be considered distribution and premium collection costs. The broker Majani gets 8% for enrollment and administrative services. Britam has internal costs of 20-30%. Over time, distribution and administrative expenses have totaled 43% of premiums, on average. Management has set a target loss ratio of 55%-65%. Medical claims ratios exceeded 100% from 2008 to 2010, but have dropped since, and were just below this target range at 54% in 2012 (see Figure 18).

Figure 18: Britam financial highlights 2008- 2012 (USD)



	2008	2009	2010	2011	2012
Premium PMPY (USD)	9.06	10.87	10.00	6.46	6.18
Expenses PMPY (USD)	4.48	4.13	4.80	2.84	2.10
Claims PMPY (USD)	9.42	11.65	10.42	5.59	3.31
Loss Ratio (%)	104%	107%	104%	87%	54%

KEY FINDINGS ON BRITAM'S BUSINESS CASE

Based on MILK's investigation, Britam's Majani scheme currently has the largest scale and the strongest business case of any private HMI in Kenya. Its fortunes turned for the better in 2010 when it

re-engineered its program to focus more on medical benefits rather than life. Not surprisingly, as demand tends to be much higher for health insurance than for life, enrollment among tea farmers increased. At the same time, loss ratios decreased (somewhat counter-intuitively, as health insurance tends to have higher loss ratios than other lines of business). Waiting periods and upper age limits were also put in place at this time, and these changes may have moderated claims. Nonetheless, before the plan design was changed, life insurance benefits were about 80% of the payout, but as of 2012 are only 40% and medical benefits now account for 60%. Under this new benefit program, more dependents are covered, and this change accounts for much of the recent growth in covered lives. Before 2010, lives per policy were 1.5 (each policyholder had on average 0.5 dependants); average lives per policy have now risen to 2.4.

Britam's expense ratio of 44% in 2011 seems high in the Kenyan context, with other programs reporting expenses in the 25% to 30% range. Britam does have the advantage of running both commercial (up market) and micro books of health insurance. In fact, Britam had a 5% (2011) market share in health insurance in Kenya, and competes in both micro and traditional markets with other commercial carriers.

Britam took over the Faulu account from Pioneer in 2012, which struggled with its initial foray into health microinsurance. Britam's management acknowledges the challenge in taking over this MFI partner-agent scheme. The Faulu distribution channel, which now has an enrollment of 12,000, has not produced significant enrollment with any of the insurers it has worked with over the years, and its loss ratios have been over 100%. It will be interesting to see if Britam can translate the success it has had with the Majani program to Faulu.

The Majani program has certain advantages that may not be replicable. It has the highest ratio of earned premium to expected premium, indicating lower lapse in premium payment than the other programs we looked at in Kenya (See Table 4). Majani's ability to deduct premiums on a monthly basis from the tea factory payments reduces costs and produces better retention at renewal time. Faulu does offer premium financing, wherein Faulu pays the annual premium upfront and the members pay Faulu in monthly or weekly installments, but this is still a relatively laborious process.

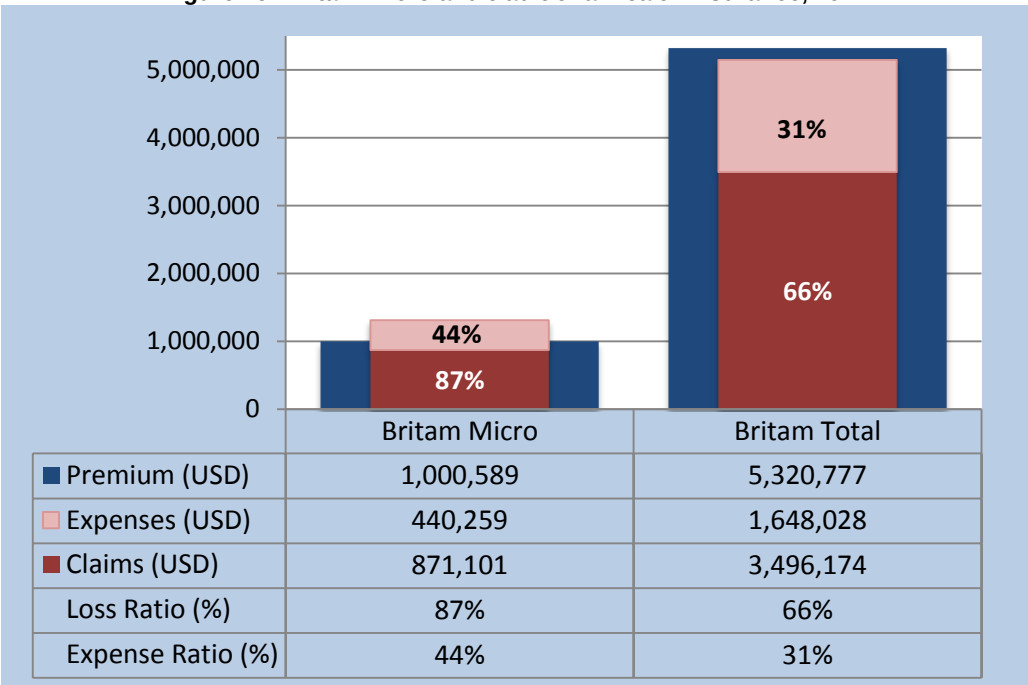
Table 4: Actual and expected premiums (2012)

	NHIF*	Afya Yetu	Majani
Premium per Policy (USD)	8.14	4.52	14.61
Premium per Covered Life (USD)	2.85	1.44	6.18
Expected Premium per Policy** (USD)	22.30	8.13	20.91
Actual / Expected (%)	36%	56%	70%

**NHIF uses fiscal year 2011/2012*
***Expected Premium per Policy is list price; actual is earned premium.*

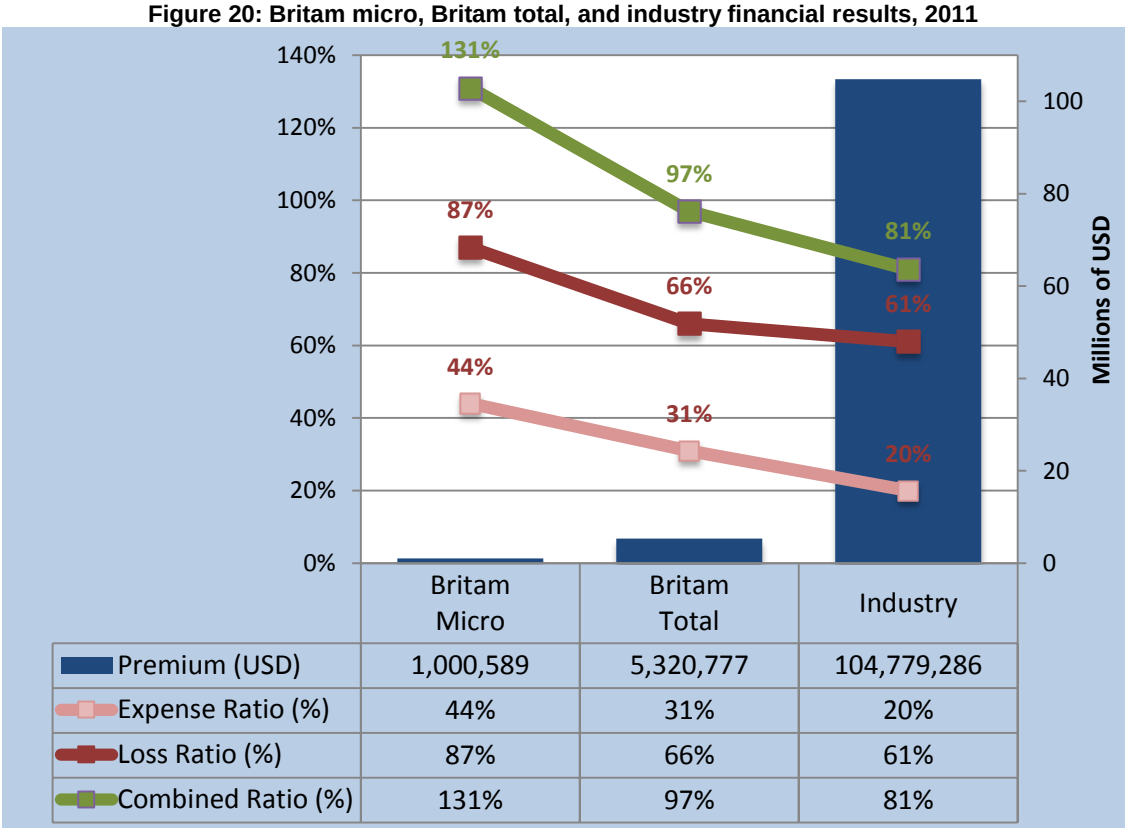
Our findings in other studies illustrate that insurers with mixed books of business can support a micro segment more readily than standalone microinsurance schemes, at least from an expense structure point of view (Koven & McCord, 2013; Koven & Martin, 2013; Koven et al., 2013). While not a major player in the health space in Kenya, Britam does have a book of commercial health insurance business to support its HMI schemes. In Figure 19 and Figure 20 we can see how Britam's micro book benchmarks against its own health business as well as against the industry in total.

Figure 19: Britam micro and traditional health insurance, 2011



	Britam Micro	Britam Total
Premium (USD)	1,000,589	5,320,777
Expenses (USD)	440,259	1,648,028
Claims (USD)	871,101	3,496,174
Loss Ratio (%)	87%	66%
Expense Ratio (%)	44%	31%

Figure 20: Britam micro, Britam total, and industry financial results, 2011



	Britam Micro	Britam Total	Industry
Premium (USD)	1,000,589	5,320,777	104,779,286
Expense Ratio (%)	44%	31%	20%
Loss Ratio (%)	87%	66%	61%
Combined Ratio (%)	131%	97%	81%

On the surface, Britam's business case looks promising, particularly for the Majani program. This program has grown at an accelerated pace while loss ratios have fallen quickly – so much so that by 2012 the program was profitable. However, some questions remain before we can be confident that these trends are sustainable. First, membership growth has in large part come from an influx of dependents covered. Nonetheless premium per policy has remained fairly level; and again at the same time claims per covered life and loss ratios have fallen precipitously. It appears then, that these new covered lives, mostly women and children, are not utilizing the inpatient benefit as much as the previous

members. Low utilization might be expected among children, who tend not to use inpatient care in large numbers.[23] However, low utilization among adult women, who tend to use inpatient healthcare more than men (Kenya Ministry of Health, 2009) may be a sign of lack of awareness of benefits among these new clients or some other problem. Whether these low loss ratios continue over time will be of interest in determining the long term business case for Britam. In addition, it will be very interesting to see if the success Britam has had with the Majani distribution can be replicated with MFIs, as other insurers have struggled with MFI delivery channels.

4.5. BUSINESS CASE LESSONS

Despite sustained effort over the last five years, private HMIs in Kenya are not achieving large scale. Scale is crucial to achieving a business case in a low-margin business line such as microinsurance, but it is also a common challenge in microinsurance. However, the two programs we studied in depth have had significant growth over the 5-year study period: Afya Yetu's covered lives increased 276% to over 30,000, and Britam's increased over 500% to 220,000 (though much of the growth of the latter was due to increases in the number of covered dependents, rather than increased enrollments). However, both have modest uptake (of 17-24%) among their target populations, and their relative success seems to be ultimately constrained by low uptake in groups of relatively small scale. Both providers have high expectations for future growth, though it remains to be seen whether the fast growth they are currently experiencing can be sustained.

Neither program has achieved sustained profits without subsidy. Unlike India, where MILK found that expense ratio and not loss ratio was driving HMI losses, in Kenya high loss ratios have been a problem. Afya Yetu had a combined ratio of 138% in 2012, but is supported by significant subsidy at the administrative and reinsurance levels. Without this subsidy, it could not cover expenses with its premium revenue. It is possible that Afya Yetu might support an (unsubsidized) business case if it reaches its ambitious growth goals in the coming years and achieves substantial efficiencies through scale, but it will likely also need to take additional steps to contain its high claims ratios.

Britam's business case is more promising, at least in the short term. Though its health microinsurance had a combined ratio of 131% in 2011, large decreases in loss ratios for the Majani product made that product profitable in 2012, with a combined ratio of 88%. This sharp decline in loss ratio seems to be related to the large number of new covered dependents who may be under-utilizing covered services.

Competition among private insurers and with the public NHIF program is significant. Competition is perhaps stiffer than we might expect given Kenya's very low rate of insurance coverage. This seems to be partially a result of limited distribution options, a common issue throughout the microinsurance industry but particularly prevalent in Kenya. Even MFIs, which have proven effective (if costly) distribution channels in other contexts, have met with limited success in Kenya. Distribution challenges have led insurers to focus largely on the same easiest-to-reach market segments.

Competition is particularly significant for the Afya Yetu and Majani programs we studied in-depth, which compete with each other in some regions and with NHIF. Majani has the advantages of easy, streamlined premium collection through the tea factories. Afya Yetu has made recent efforts to replicate this approach. Afya Yetu's most popular and most affordable product is significantly cheaper than Majani's (USD 8 vs. USD 21). Although the products are not directly comparable, as the Majani product offers more options for care and also includes life insurance benefits, the affordability of the Afya Yetu product seems to give it a competitive advantage against both Majani and NHIF, especially among the most price-sensitive. This same product, however, is threatened by high claims ratios resulting from increasing utilization of covered services. Afya Yetu has responded to these with one price increase and was able to maintain most of its clients, but it is uncertain whether it can withstand future premium increases.

NHIF's voluntary informal sector program is highly subsidized, and while the ultimate sustainability of this program is by no means certain, the government appears willing at this time to maintain this subsidy, offsetting some of the losses in the voluntary program from its mandatory formal sector program. NHIF has also recently added a maternity benefit, furthering its advantage. Rather than competing directly

[23] A 2007 survey found that children ages 5-14 had the lowest rate of hospitalization of any age group, at 8 admissions per 1,000 population (Kenya Ministry of Health, 2009).

with this highly subsidized program through similar products, private insurers may be best served by differentiating their coverage. Afya Yetu's offer of more limited coverage at a cheaper price to appeal to the most price-sensitive clients is one promising approach.

Outpatient coverage is a great challenge for insurers and is largely unexplored, though it may offer promising opportunities to compete. While insurers have bundled an additional life insurance component with health to support product sustainability, the opportunity for private insurers to offer outpatient benefits as a complement to NHIF's subsidized inpatient cover is largely missed. While outpatient coverage is in high demand by clients, it is a great challenge for insurers everywhere. Further, in Kenya insurers argue that eligibility issues on an outpatient basis are too challenging to manage, especially since smart card technology is mostly absent in Kenya. The move to smart cards is seen as expensive and as a result has been resisted by most mission and public hospitals to date. Some nascent schemes, such as Changamka and Pacis, have moved toward smart card programs that include pre-paid outpatient benefits. We expect that early activity in this area will provide important lessons as to the promise it holds.

5. Can there be value and a business case?

Finally, we consider the combined lessons of our client value and business case work. While the two interests are not perfectly aligned as we might hope from the "ideal world" mentioned in the introduction, the market holds promise for delivering both value and profitability in the future.

5.1. BALANCING CLIENT VALUE AND BUSINESS CASE

Insurance does not cover all costs, and it does not need to do so in order to be valuable. Both the Afya Yetu and Majani products provided significant value to clients who had a major (high-cost) hospitalization. Overall, the insured in our sample spent only 56% of what the uninsured spent for the hospitalization, including the annual premium. The cost savings for the Afya Yetu insured was even more substantial (the insured's costs, including the premium, were only 27% of the uninsureds). Although the cost savings were great, all insured patients were left with substantial costs that the insurance did not cover; these included some expenses at the hospital that insurance did not cover, but were largely comprised of indirect costs and lost income. These remaining costs were financed more easily and more independently by the insured than by the uninsured. These positive differences in financing appear greater among the Afya Yetu insured, for whom a larger proportion of costs were covered by the insurance. Further, insurance seems to have created an incentive to reduce short-term spending, as this strategy could more easily be used to cover a substantial portion of the (far lower) costs of the insured. We have seen similar incentives from insurance in other Client Math studies (see, for example, MILK Briefs 10 and 15). While such spending cuts are difficult in the short term, they are often ultimately less burdensome than alternatives such as borrowing or depleting savings or assets.

There are clear tensions between client value and business case, but a balance remains possible. Both of these programs provide value to clients. While neither provider has shown a strong, unambiguous business case for health microinsurance, Britam has shown promising progress toward developing one. The Kenyan health microinsurance market is infused with entrepreneurial enthusiasm, supported by an insurance regulator that would like to see coverage grow to help satisfy the goal of financial inclusion, and funded by a number of donors who believe in the prospects for HMI in this market. Thus we see some promise that both client value and business case can exist simultaneously in the Kenyan health microinsurance market.

The tensions between the two, however, are also apparent (see Table 5). Afya Yetu provides high financial value for those who make claims, and understanding and familiarity with the product seem to lead to frequent use by clients. The same qualities, however, may have also led to low premium collection rates and very high (and growing) claims ratios that call the program's financial sustainability into question. Perhaps higher loss ratios could be supported by lower administrative costs that a community based group might achieve. However, while Afya Yetu does have lower unit costs than, for instance Britam, it works with a much lower premium basis and so its expenses relative to premium are as high or higher than the commercial example. Further exacerbating the relative cost issue is the weakness of its premium collection processes and controls.

Of course Afya Yetu had apparently been too generous and was forced to raise premiums to catch up with costs of providing value. In contrast, Majani may have been too stingy and improved scale and ultimately profitability when it added health benefits which expanded value.

Britam has experienced promising growth in covered lives, and achieved profitability in its Majani product in 2012. However, a large part of this growth was due to additional covered dependents of previous clients. These dependents, mostly women and children, seem at this time to be under-utilizing the covered services, a trend that is inconsistent with value. Programs like Britam's could benefit from greater engagement in the community, including efforts to improve product coverage understanding at the community level.

To clients, these tensions matter, as they influence long-term program viability. To insurers, client perceptions and experiences matter, as they ultimately drive the demand for their products. This strong interconnectedness between business case and client value questions suggests that both the Majani and the Afya Yetu model must continue to evolve to reach sustainability by tweaking the financial value

to ensure an attractive yet sustainable level of coverage, while reducing administrative expenses through technological innovation.

Table 5: Tensions and tradeoffs between client value and business case

	Client Value	Business Case
Afya Yetu	+ High financial value for those who make claims + High claims incidence - Little flexibility/choice of provider	+ Promising growth - High and increasing claims ratios - Requires substantial donor support to maintain low premium
Britam Majani	+/- Modest financial value for those who make claims - Low claims among some client segments + Great flexibility in choice of provider	+ Promising growth and already substantial scale +/- Marginal profitability due to sharp recent decreases in claims ratios

We are optimistic that these tensions can be balanced. As Britam, Afya Yetu, and other insurers work to do so, they may benefit from considering some of the critical features of the programs we studied: elements that contribute to and/or undermine the client value proposition and the business case.

5.2. Critical features of the programs we studied

***Level of coverage*.** Our Client Math studies highlighted the fact that the level of coverage is, of course, a crucial component of value: the Afya Yetu product covered a greater proportion of clients' out-of-pocket costs and seems to have provided greater value to the clients in our sample than the Majani product did. However, this finding should not be interpreted to imply that greater coverage is always better, especially if that greater coverage threatens the program's sustainability. Increasing the *level* of coverage may not always the best way to improve value, especially in a market such as microinsurance in Kenya, where insurers struggle with high claims ratios. The type of coverage and other product features are also critical determinants of the value clients receive.

***Simplicity and flexibility*.** While simpler certainly is not always preferable from either a business or value perspective, some simplifications can serve both interests. Both the Majani and Afya Yetu product are relatively simple, providing cashless coverage for inpatient care at in-network hospitals. The simpler, more straightforward coverage of Afya Yetu, however, seems to have offered greater value to the low-income clients who used it. This value involved a sacrifice of flexibility and choice, both in product coverage and in the hospital where care was sought, but the tradeoff nonetheless seems to have favored Afya Yetu clients. Majani members, by contrast, have more complex coverage that some struggle to understand. Of Majani insured respondents in our Client Math study, 60% reported paying more than they expected to pay for their hospitalization.

***Perceptions of value*.** Clients' perceptions are related to product coverage, but also to features such as simplicity and ease of use. These perceptions are important to understand, particularly for voluntary programs, as they drive demand, enrollment, and renewals. All Afya Yetu clients in our Client Math study reported satisfaction with the product. Part of this may be due to the relatively "high touch" enrollment process that leverages existing relationships with agents from within the communities of the target populations. Afya Yetu members see the program as a part of their communities and have a great deal of trust in it. They also understand the product and appreciate its simplicity and generous coverage. In fact, Afya Yetu members' perception of value is high enough that even after a 33% increase

in the premium in 2010, 89% of members renewed. Britam's re-design of the Majani program in 2010 to provide more health benefits was met with much greater demand than its earlier product, comprised of 80% life benefits.

***Low enrollment and adverse selection*.** These related problems challenge many insurers offering voluntary products. Afya Yetu has struggled with increasing claims ratios while maintaining its relatively low uptake rate of 24% of its target population, a sign of adverse selection, compounded by significant "slippage" in actual premium collected vs. pricing premium. With the Majani product, Britam has found a successful method of distribution at relatively low cost. This method, by approaching farmers in groups, may also help it to avoid some of the adverse selection problems and premium collection problems that plague Afya Yetu and others in Kenya.

Scale. The continued growth of these programs is key to achieving lasting financial sustainability. Britam has already achieved reasonable scale in health microinsurance in Kenya, far more so than any other private player. Its position is further strengthened by its activity in the traditional health market, providing a larger book of business over which to spread costs. Although Afya Yetu now is far from being financially sustainable without donor support, but if it continues to add more community based schemes which can leverage shared resources at Afya Yetu, expense ratios should decrease.

Claims. The ability to keep claims ratios in check is also crucial to sustaining a business case over time. This must be done, of course, while continuing to offer value to clients. Financial results over the next few years will show whether the recent decline in claims ratios experienced by Britam is sustained, but early indications suggest that it may have come as a result of under-utilization.

This is an area in which the competitive influence of many private players and of NHIF are particularly apparent. Afya Yetu has had some "success" in competing by offering a low-cost product with generous (though less flexible) coverage, but its activity has only been sustained to date through significant donor support. If that support lessens over time, or if claims ratios continue unabated in their upward trend, it may no longer be able to compete in the same way. The highly subsidized public option provided by NHIF has shaped the Kenyan microinsurance landscape. As long as this option continues to be available, it will likely be difficult for unsubsidized private players to compete directly. However, some potentially promising opportunities exist to provide complementary coverage.

Outpatient coverage. Outpatient health insurance is a challenge to provide sustainably anywhere, and there are few examples of success to date, but it holds great promise from both a value and business case perspective. Experimentation with mobile money and smart card technologies shows some early promise. Innovation with primary care capitation networks could clear the way for manageable outpatient benefits as well as premium collection methods.

Deliveries. Of our Client Math sample, 17% of respondents across both studies were hospitalized for deliveries. However, on June 1, 2013, maternity care became free in public facilities for all Kenyans. Many government hospitals are adapting by reserving well-equipped maternity wards specifically for insured patients to avoid losing revenues from private insurance schemes that pay more than public schemes. If clients perceive this additional quality as valuable, it might help reduce the desertion from these programs of otherwise healthy young women. Public maternity coverage may also offer an opportunity for the insurance schemes to offer coverage that excludes deliveries, potentially reducing the premium cost or increasing coverage of other services. This highlights an important aspect of private microinsurance: that it must stay flexible and client centered, keeping in mind the alternative mechanisms (including those financed through governments) clients can use to obtain care. By remaining client-centered, the value and profitability of these schemes can only improve in the long term.

Micro Insurance Centre

Microinsurance Learning and Knowledge (MILK) is a project of the MicroInsurance Centre that is working collaboratively to understand client value and business case in microinsurance. Barbara Magnoni leads the client value effort and Rick Koven leads the effort on the business case. Contact Michael J. McCord (mjmccord@microinsurancecentre.org), who directs the project, for more information.

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Appendix A: Majani Insurance monthly premium rates and coverage (USD)

Option	Daily Hospital Benefit	Death Benefit Per Member	Additional Surgery Benefit	Premium per Adult	Premium per Child
I	5.72	57.24	57.24	0.29	0.17
II	8.59	85.86	85.86	0.46	0.29
III	11.45	114.48	114.48	0.63	0.46
IV	17.17	171.72	171.72	0.86	0.57
VI	22.90	228.96	228.96	1.09	0.74
VII	28.62	286.20	286.20	1.32	0.92
VIII	34.34	343.45	343.45	1.49	1.03
VIII	45.79	457.93	457.93	1.72	1.20