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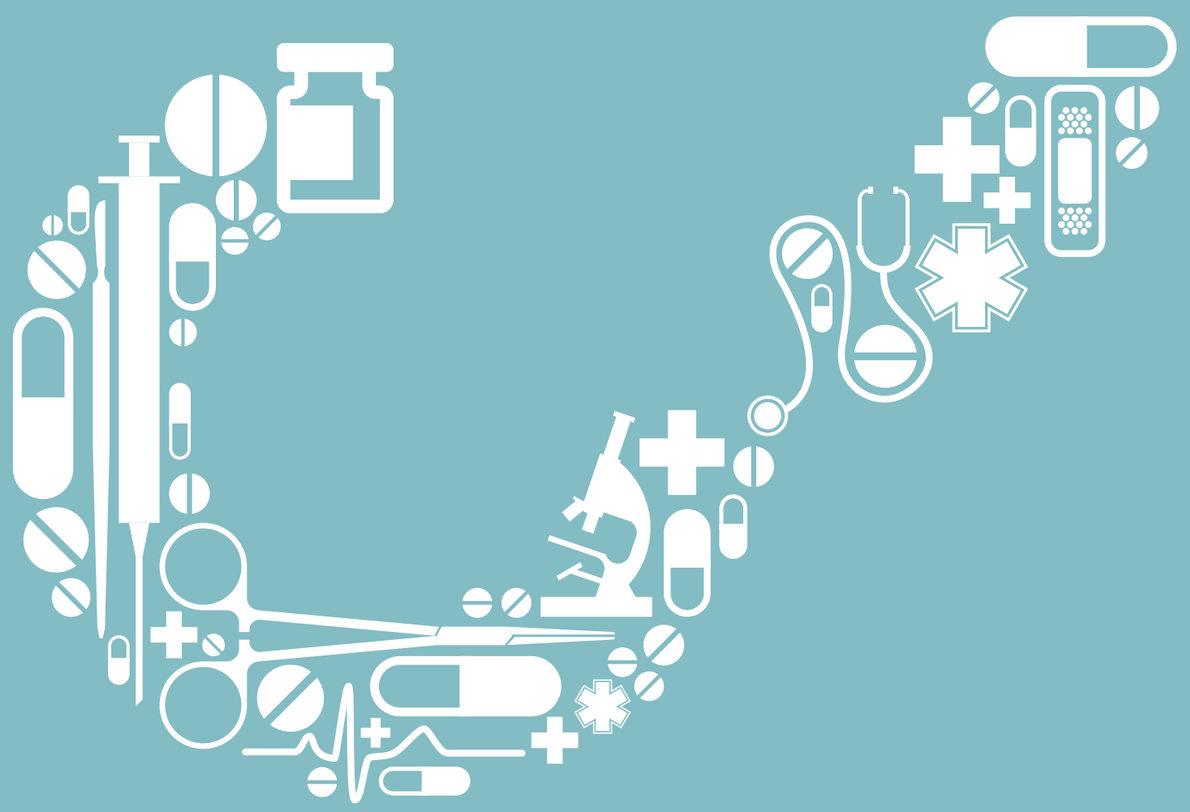
How the private sector is reforming health care for Kenya's mass market

October 2012



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EXECUTIVE SUMMARY

The last three years have marked an exciting time for the health care sector in Kenya. Rising disposable income, regulatory changes, and market developments have each invigorated an industry increasingly dominated by the private sector. This period has seen investments and successes in all parts of Kenya's health sector, from health provision and insurance to pharmaceutical production. This is consistent with the most basic findings of this research: as income grows, Kenyan consumers spend more of their shillings on health care. At the same time, 33M Kenyans lack any form of basic insurance, and are treated in ill-equipped and poorly staffed facilities. Kenya's health sector faces enormous deficiencies in coverage and infrastructure.

Due to the poor quality of the public sector offering, Kenyans increasingly look to the private sector for quality and value for their money. Regardless of the specific business models, success in Kenyan private health insurance and service delivery will depend on capital-intensive solutions. We estimate private expenditure on healthcare will range $1.8 – $3.1 billion by 2025. This translates into capital requirements exceeding $1 billion.

Investors have noticed rising demand and are turning their attention to this space through recent investments in medical insurers, medical facilities, and other Kenyan healthcare companies. The race to serve the untapped mass market has accelerated thanks to increased innovation and investments and recent changes in the regulatory space, including a new policy covering medical insurance providers (MIPs) and general insurers.

To serve the Kenyan mass market, private health care players require innovative business models that can supply consistent quality and coverage at lower prices with higher volumes. Many of these emerging private sector players are Small and Medium Enterprises (SMEs) that seek capital to grow. This research aims to offer insights into the types of investments and innovations that hold the greatest potential for success.

This report is for entrepreneurs, investors, and advisors to inform business model innovation and investment committee decisions in a space where information is often scarce, and most analyses tend to target policymakers.

1

THE RISE OF MARKET-BASED HEALTH CARE SOLUTIONS

In the first decade of the century, Kenya's health care system has made great strides. According to the World Health Organization, the country has seen substantial improvements in health outcomes: fewer children are dying and the share of adults infected with HIV is in decline. These improvements have translated into six additional years of life expectancy for Kenyans[1].

Over this period Kenya's health care expenditure grew faster than the overall economy, and private sources—individual, privately pooled, and non-state donor funds—drove that growth. In contrast, public sector contributions have leveled off. Exhibit 1.1 shows that, even when compared to other low-income countries (LIC), Kenya's public sector plays an unusually small role in health care, accounting for only one-third of total health expenditure, down from 45% in 2000. Donors and other external resources helped plug this funding gap by raising fourfold their share of the state's healthcare budget from 9% in 2000 to 37% in 2010[2]. As public funds stagger, private spending has come to dominate Kenya's health care demand. It would take an unexpected and unprecedented policy shift for the public sector to restore its dominance in the health sector. Rather, we expect the state's role to continue fading in this growing industry, fueled by private, out-of-pocket spending.

Our research indicates that private health expenditure will continue to outpace the public sector and, by 2025, could account for 75% of total health expenditure. In Kenya, consumers spend a disproportionate share of their marginal shilling on health services, at a rate of roughly one percentage point above the GDP growth over the last decade. Yet, at 4.8% of GDP, Kenya still spends less on health than the average LIC, suggesting that health expenditure will outpace GDP for years to come[4]. Through 2025, the World Bank expects Kenya's economy to grow between 5% and 7% annually. As Exhibit 1.2 shows, under these assumptions, we expect annual health expenditure in Kenya to reach US $ 4 billion, with private spending ranging from US $2.6 billion to 3.1 billion.

Exhibit 1.1: Kenya's government plays an unusually small role in health care expenditure

Source of health care expenditure by per-capita Gross National Income (PPP), 2009[3]

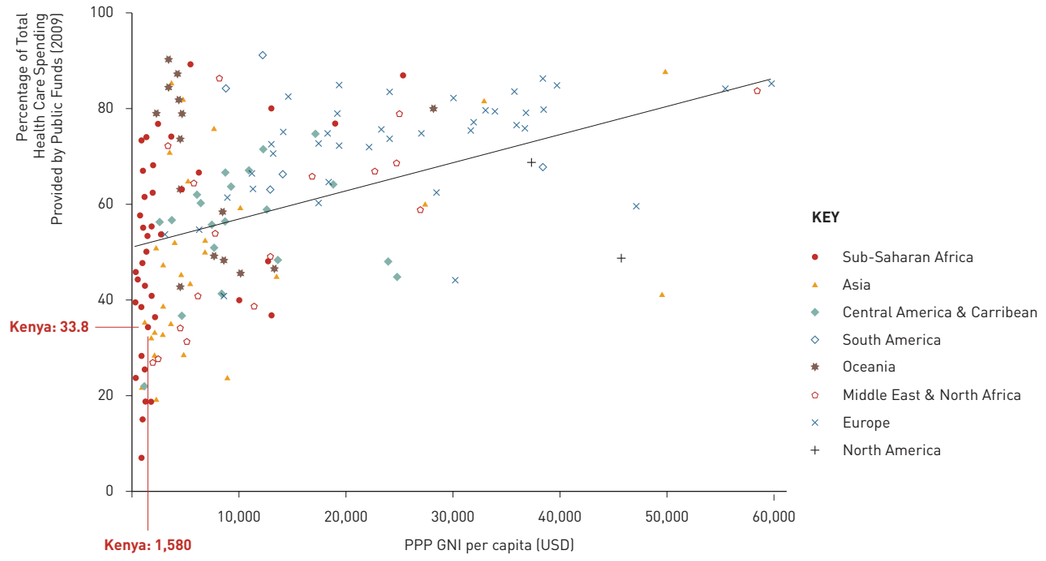


Exhibit 1.2: We project Kenya's annual health expenditure will reach $4 billion by 2025, led by private spending

Projected Annual Health Expenditure in Kenya (Billions USD)[5]

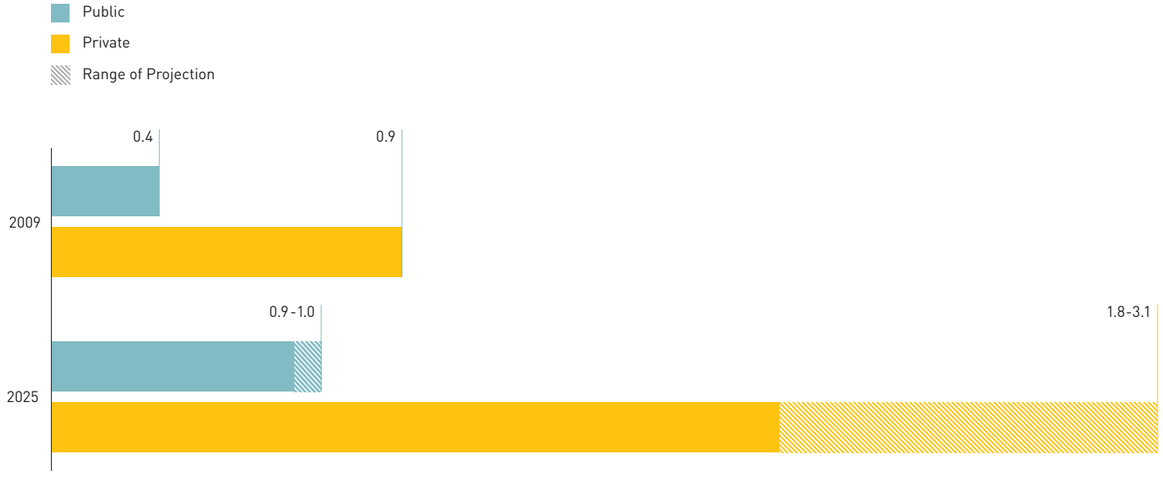
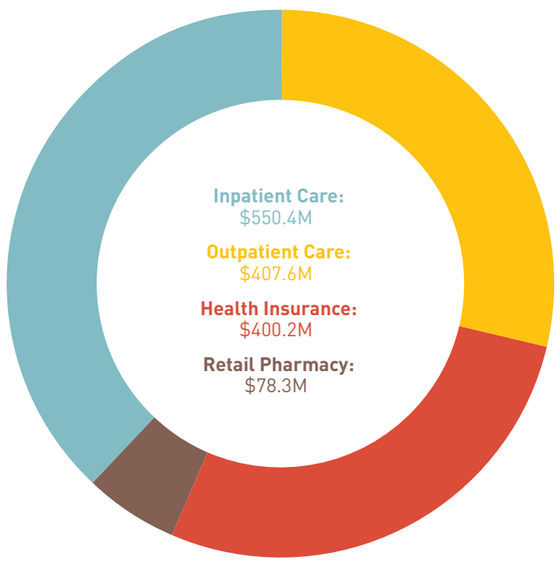


Exhibit 1.3 : Kenya's private health sector will need US$ 1.4 Billion in capital by 2025

Expected Capital Needs in Kenya's Private Healthcare Sector by 2025 – Conservative Estimate[6]



To serve this growing demand we estimate Kenya's private health sector needs $1.4 billion in capital by 2025. Exhibit 1.3 shows the breakdown of these capital requirements by industry, with capital-intensive inpatient care models representing the greatest share. Capital requirements may be even higher if GDP growth accelerates beyond the baseline 5.2% annual average or if wealth effects or technology changes further increase demand for capital-intensive services.

In the years to 2025, we expect investments in market-based solutions to transform Kenya's health care offerings. Demand is growing, and increasing disposable income and demographic trends will favor the services of private hospitals, insurers, and networks of dispensaries. Today, Kenya's health sector is unprepared to serve this demand. It faces enormous deficiencies in infrastructure: poor coverage, limited diagnostic and treatment equipment, insufficient medication available at the clinic level, and a lack of centralized health records.

Regardless of the specific business model, success in Kenyan private health care insurance and service delivery will require more capital-intensive solutions to expand coverage and improve quality. A growing share of these investments will require patient, longer-term funding, and will require private equity rather than retained earnings or debt. Our research shows that all of these subsectors are far from saturated with capital, suggesting investors need not fear over-investment for years to come.

Private health expenditure will continue to outpace the public sector and, by 2025, could account for 75% of total health expenditure... Success will require relatively capital-intensive solutions to expand coverage and improve quality.

There are great financial and social rewards for investors and entrepreneurs who can simultaneously overcome the hurdles of cost, quality, and access in serving these mass-market consumers. Regarding cost, solutions must improve value for money. Scalable, high-volume models will be favored. Entrepreneurs must price carefully in the face of competitors subsidized by aid, NGOs, and government. Today's mass consumers tend to be cost, rather than value, sensitive. Yet, we see evidence that some patients have become more value conscious as their incomes grow. Low prices mean that business must allocate that the 'right' level of care and resources across the value chain. Because health resources are scarce and prices are low, the market needs new organization and business models that focus on maximizing health outcomes with limited human and physical capital.

In the next section, we explore the challenges and opportunities in private mass-market health insurance, followed by an analysis of recent industry dynamics experienced in the traditional health insurance sector. We have focused on risk pooling because we believe that these financing schemes possess the greatest potential to reform the private health care sector and enable innovative delivery models.

2

MASS-MARKET PRIVATE HEALTH INSURANCE: THE WAY FORWARD

Today, 33M Kenyans lack any type of health insurance coverage. As Exhibit 2.1 shows, insurance companies back between 200,000 and 250,000 private health insurance policies, covering 750,000 - 1M of Kenya's population of 40M. Employer sponsored schemes cover 1 - 1.5M lives. The National Hospital Insurance Fund (NHIF) requires Kenya's 2M formal sector employees to subscribe to their insurance scheme. Adjusting for individuals with overlapping coverage, those covered by private insurance, MIP, and/or CBHF, we estimate only 6.6M - 8M Kenyans are protected by risk pooling schemes.

It is worth noting that the coverage provided by some of these schemes is highly limited, with service levels not adequate for the needs of many of those covered. In our view, the conditions are improving for companies to venture into private mass-market health insurance in the near future. An uninsured or under-insured Kenyan middle class exists within the more than 10M middle-class people who cannot afford today's private insurance products. Other estimates from the African Development Bank identify a Kenyan middle class of more than 18M people. Products to serve the bottom of the pyramid are only part of the solution.

Three access barriers explain the minimal adoption of health insurance for the mass market in Kenya: cost, geographical coverage, and a lack of qualified provider partners.

Of these, cost is the most important barrier, but perhaps also the most flexible. A sample of policies currently offered in Kenya shows that premiums for average coverage start at KES 30,000 per year – one-third of annual per capita income. By contrast, average individual premiums for US health insurance in 2010 were $2,600 per year – around 6% of individual income[2]. Even accounting for expected middle class growth, traditional health insurance products will remain out of reach for most Kenyans. Four key cost drivers suggest the traditional insurance model is too expensive to reach mass-market consumers:

Sales: Especially for the mass-market, health insurance is a "push" product. Selling policies requires investing in education through large sales forces and marketing campaigns. The time and expense needed to sell traditional policies through established broker/agent networks is too long to be cost-effective for mass-market insurance.

Claims: High perception of fraud increases the time to verify and process claims for conventional policies. This is too long for mass-market clients who have to cover large expenses out of pocket. Fire sale of their assets at deep discounts can send those families below the poverty line and destroy years of accumulated savings before traditional insurance coverage kicks in[3].

Administration: The costs of managing a traditional policy are roughly the same regardless of premium size. At an estimated expense ratio of 22%, the annual costs of managing conventional health policies exceed $100, far too much for a microinsurance policy[4].

Regulation: eventual implementation of Solvency II regulation would imply stricter capital and reporting requirements for insurers in Kenya[5]. Complying with these additional cost layers would hobble most mass-market insurance products, as they are out of line with expected risks. To circumvent regulatory and reporting requirements, non-insurance players often avoid the word 'insurance' in their product branding, but mass-market insurance will need more reliable regulatory solutions.

Beyond cost, insurers looking to serve the mass market will find they lack health care provider partners with geographic reach. On a per capita basis, the region with the best coverage in Kenya has twice as many health care facilities compared to the least covered one[6]. No single private network of clinics, hospitals or dispensaries provides true national coverage, even for richer patients.

Finally, stronger institutional arrangements between insurers and clinics are required before mass-market products can succeed. Our interviews show that insurers believe 40-50% of outpatient claims are fraudulent. Limited back-end integration between insurers and providers increases insurers' perception of fraudulent claims. Pricing this additional risk into policies, excludes more Kenyans from health insurance.

As Exhibit 2.2 shows, the private sector dominates risk-pooling arrangements by amount spent. However, because of these access barriers, only 9% of total health expenditure goes through risk pooling mechanisms, essential for individuals to afford better quality services. Risk-pooling need not be an unprofitable endeavor: many products and services targeting the bottom

Exhibit 2.1: Only 6.6 million Kenyans are protected by risk pooling schemes

Kenyan population covered by health insurance schemes, 2009[1]

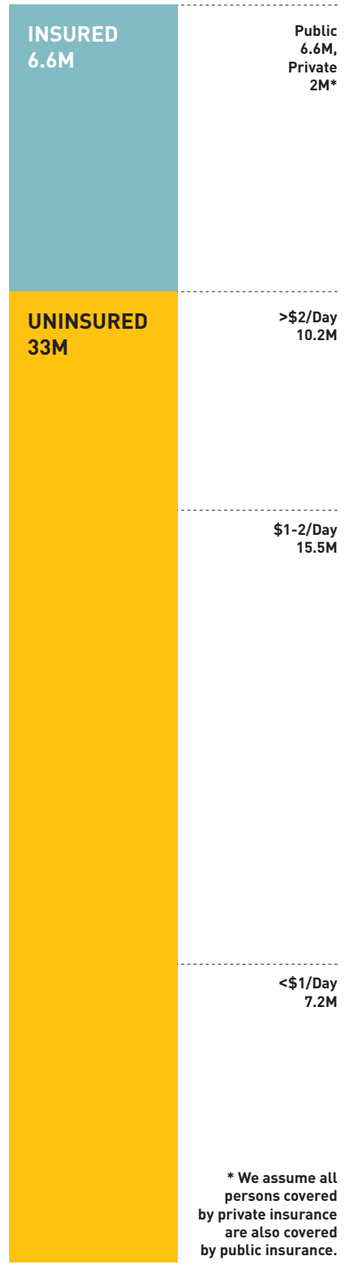
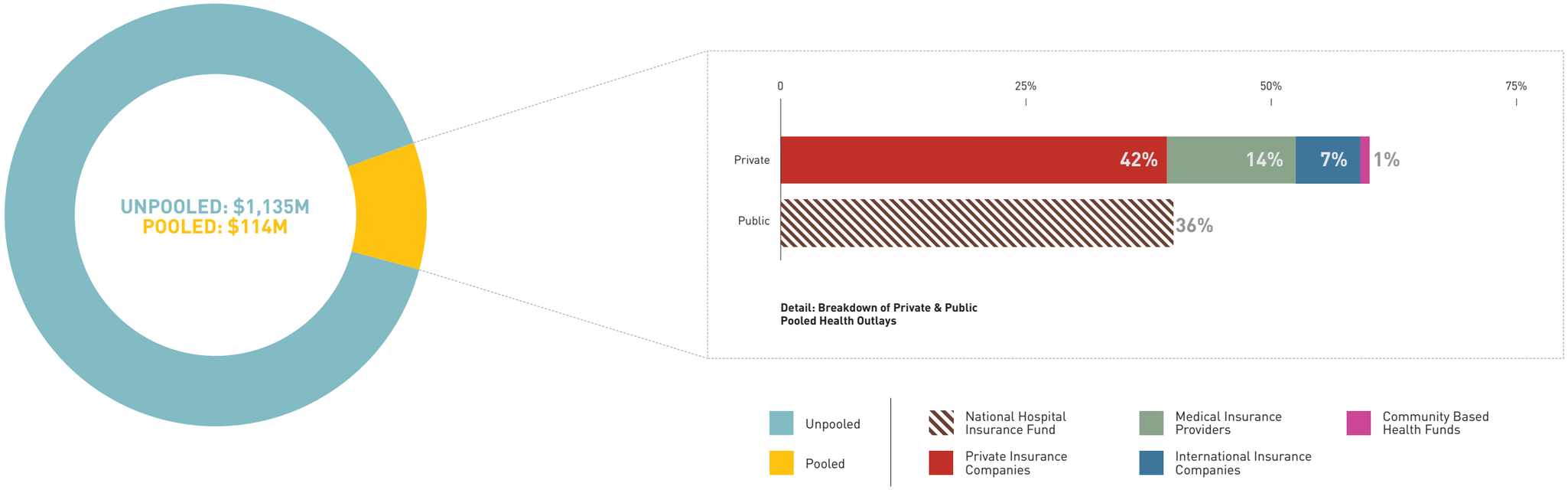


Exhibit 2.2: Only 10% of health expenditure in Kenya is pooled

Pooled vs. out-of-pocket health spending in Kenya, 2009[7]



of the pyramid have proven to be profitable at low-price points and with attractive margins as long as they achieve large volumes[8].

Smart product design will be key to winning in the Kenyan mass-market for private health insurance. Small premiums will force distinctive approaches to coverage, claim validation, back-office efficiency, and marketing. For example, coverage might be event or disease specific. Claim validation should be simple, even binary (i.e. a claim is accepted when a client presents a positive malaria test), or products should come with few exclusions. Claims need to be processed quickly, taking days, not months, from claim to disbursement ideally on the provider's balance sheet. Back-office must be heavily automated, with phone and SMS-based support. Transparent integration between private insurers, health care providers, and public insurance schemes would reduce fraud and claim uncertainties. Distribution should target high volumes, at low cost per policy. Kenya is in a unique position to leverage mobile phone and payment networks to achieve this. It is possible that health micro-insurance be bundled with other products and services, though not necessarily only financial products.

In the long term, we expect the rise of private mass-market insurance to revolutionize all aspects of the health care system. In the meantime, the twin challenges to develop mass-market provision networks and insurance partnerships present exciting opportunities to entrepreneurs and investors. The insurers we interviewed already see that mass-market products require higher quality, low-cost outpatient provider networks distributed broadly across the country. For providers, mass-market insurance will significantly increase demand for outpatient and preventative care.

Despite their potential for symbiotic success, relations between providers and insurers today are fraught with allegations of fraud, prejudicial pricing, and long reimbursement waits. With larger scale, both providers and insurers will finally see the patient volumes they need to justify capital investments in quality solutions and to drive provision prices down. The result will be a more efficient, increasingly formalized health care system.

As the private health insurance snapshot above shows, recent regulatory changes and innovative offerings promise to transform the private health insurance industry. A different paradigm is needed to cover low and middle-income consumers in the country. In coming years we expect conventional health insurers to focus their growth on designing new products to serve Kenya's 33M uninsured.

3

COMING INVESTMENT OPPORTUNITIES IN PRIVATE HEALTH INSURANCE

At 3.2% of GDP, total insurance penetration in Kenya is slightly below the African average of 3.6%[1]. Health insurance represents less than 10% of total insurance premiums written in the country. While premiums have grown at 17% annually in the four years to 2010, the structure of the sector makes it a hard business for insurers. First, it is fragmented, with 16 general insurers and, until recently, 24 MIPs competing to serve 200,000 – 250,000 policies that cover around 750,000, mostly upper-class, people[2]. Second, at 82%, average loss ratios (claims paid relative to premiums earned) are substantially higher than 58% for other non-health insurance, making it a less profitable line of business[3].

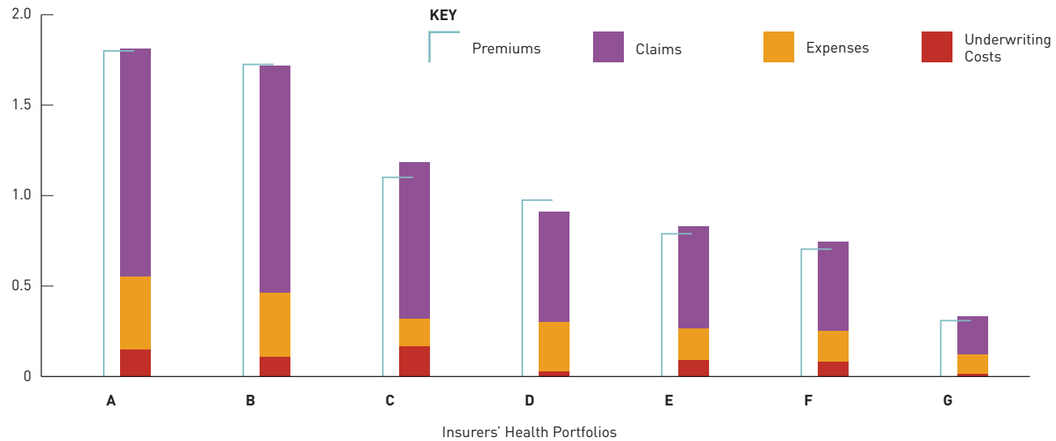
Except for two large MIPs-cum-insurers, most large players are general insurers. As their high ratios of claims over premiums suggest, many of these players lack understanding of the space and struggle to manage claims costs effectively. Health has long been of marginal importance to most general insurers in Kenya.

Recent regulatory changes dissolve the MIP status, forcing MIPs to become either brokers or insurers. This will open opportunities for investors to participate: MIPs that transform into general insurers will need to raise additional capital. Alternatively, those that become brokers have begun selling their health insurance books or merging with other players. We are already seeing the first steps of this re-organization.

This regulation shake-up has forced many players to rethink their position, and some early winners are emerging. As Exhibit 3.1 shows, one fast-growing competitor has generated an actuarial profit on its books. Through smart claims management and well structured products, its loss ratio has consistently stayed below 55% for the last three years, giving it a substantial cost advantage.

Exhibit 3.1: One private health insurer generates actuarial profits through smart product design and claim management

Combined ratio of select private health insurance companies in Kenya (Billions KES), 2009[4]



The existence of 33M uninsured Kenyans indicates an opportunity for insurers to expand down market. Some insurers, like Pioneer, have launched partnerships with Micro Finance Institutions (MFIs) or Savings and Credit Cooperatives (SACCOs) to design and distribute low-cost products with specific coverage. Others, like APA, have recently raised capital to finance expansion into the mass-market. Partnerships with telecom players will provide some insurers with key distribution and support platforms for mass-market insurance. We expect the first products from these partnerships to enter the market soon.

As the industry matures, we expect to see more capitalizations of health insurers, product innovation, and distribution partnerships emerging to move toward mass-market products in the medium term. Investors should take note, as all of these opportunities will require large capital injections.

Health insurance represents less than 10% of total insurance premiums written in the country.

4

THE NEED FOR HIGHER QUALITY OUTPATIENT CLINICS

Exhibit 4.1: Kenya faces a severe shortage of medical professionals

Doctors per 10,000 inhabitants, 2004 or latest[1]

Egypt	28.30
Algeria	12.07
Tunisia	11.90
South Africa	7.70
India	6.49
Nigeria	3.95
Namibia	3.74
Bangladesh	2.95
Low-income Countries	2.03
Kenya	**1.39**

Throughout this report, we have identified the lack of investment in new business models as a chief barrier to paradigm-changing market-based solutions in health care. Nowhere is the need for such innovative models more necessary than in outpatient clinical care.

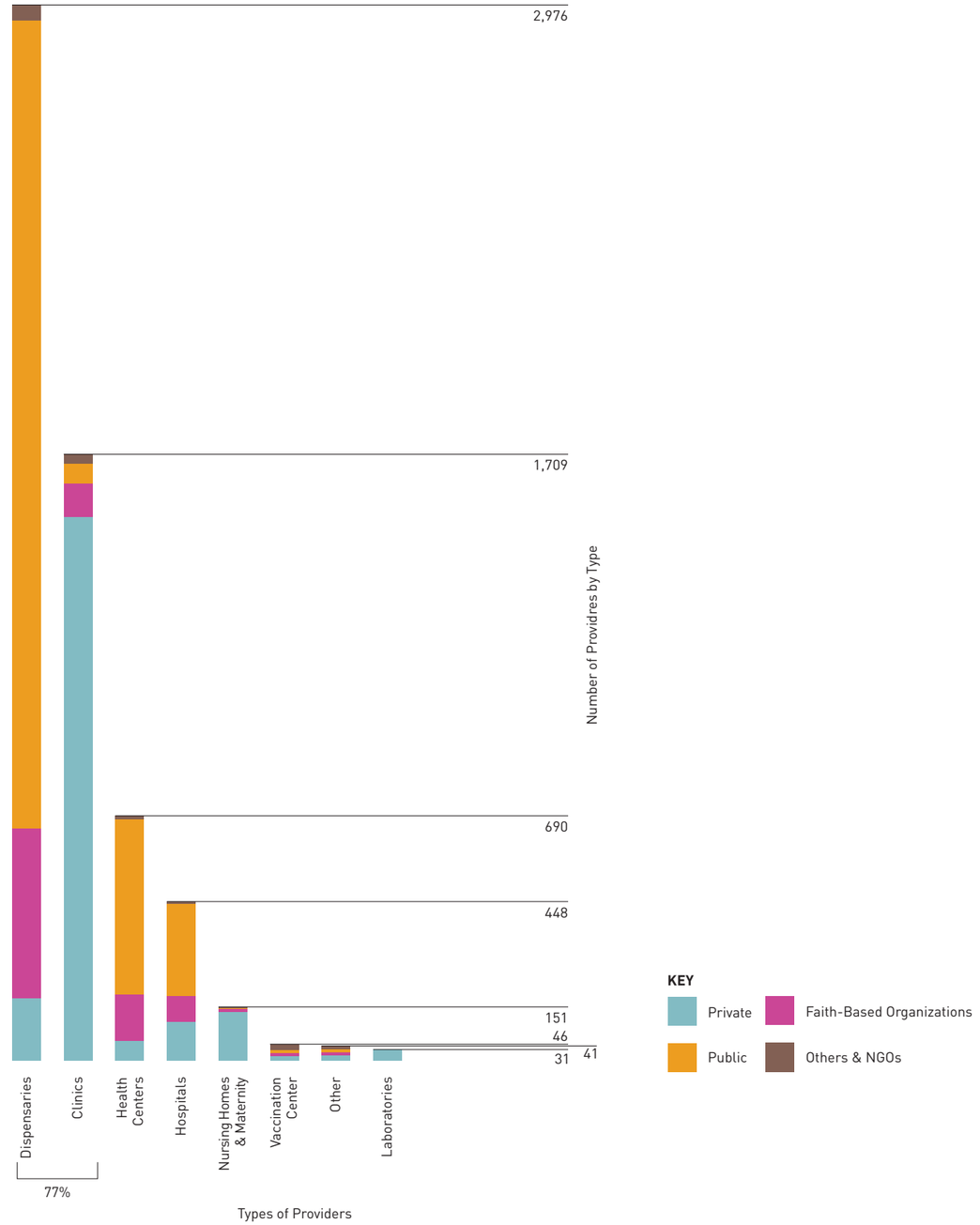
A lack of skilled medical professionals — especially doctors — is widely identified as a challenge to health provision across Africa. Exhibit 4.1 (opposite) shows that with 1.4 doctors per 10,000 people, Kenya is below the average for LICs. Kenya's path to quality health care will depend on quality at its clinics. We see enormous opportunities for business models that can combine human capital with the tools that medical professionals need to use their skills efficiently.

As Exhibit 4.2 shows, the health care provider landscape in Kenya is dominated by dispensaries and clinics, which make up 77% of all facilities. The quality and clinical capacity of these facilities is consistently poor. Dispensaries and clinics are run by under-trained health workers, typically a nurse or midwife, rarely a doctor. Only 21% of clinics are able to provide a full package of basic services (curative services for children, sexually-transmitted infections services, family planning, antenatal care, etc). Furthermore, 42% of clinics do not have equipment to support quality sterilization / high-level disinfection (HLD). Shortages of equipment and medicines are common, meaning patients often cannot access needed care.

In the course of our research, we found interviewees referring to the same "typical" un-networked, outpatient clinic. As it was consistently described by our experts, it is very common and its staff consists of a doctor and a receptionist, and its facilities include a waiting room, an examination room, a microscope, and a small supply of reagents and pharmaceuticals. With such few tools, it is impossible to distinguish between bacterial and viral infections, meaning many illnesses are misdiagnosed.

Exhibit 4.2: Low-quality dispensaries and clinics represent 77% of health facilities in Kenya

Kenya's provider landscape, 2010[2]



As Exhibit 4.3 shows, most private health care facilities lack scale and adequate investments in human and physical capital. The result is a fragmented landscape of clinics with very limited capabilities. Even private clinics serving the poor are unnecessarily expensive and their quality very low.

To tackle the unacceptably high mortality from common illnesses, most clinics in Kenya focus their scarce resources on treating those conditions. This approach is at the core of Kenya's referral model to care provision. However, morbidity is more diverse than these threats suggest. As Exhibit 4.4 shows, 58% of outpatients suffer from more than forty diseases outside the five most common. Basic outpatient services are simply too limited to provide effective care. Lack of qualified staff and diagnostic equipment means that a clinic designed to treat malaria, typhoid, and tuberculosis cannot diagnose or treat most patients.

Under these circumstances, a patient visiting a dispensary or clinic is likely to be referred to a higher level facility, wasting time and money. Over time, patients learn that lower tiers of care are unhelpful and avoid them when they can, instead either self-diagnosing and medicating, or going directly to the already overcrowded upper-tier hospitals. Doctors we invterviewed estimate more than 60% of patients at referral hospitals have outpatient problems. Indeed, 15% of hospital admissions in Kenya are attributed to malaria[23].

Only 21% of clinics are able to provide a full package of basic services...Basic outpatient care is simply too limited to provide effective care.

There is a pressing need for higher quality outpatient clinics, with equipment that allows preventative care and non-emergency diagnosis and treatment. As Kenyan's emerging mass-market spends more of its new disposable income on health services, they will demand better value for their money in

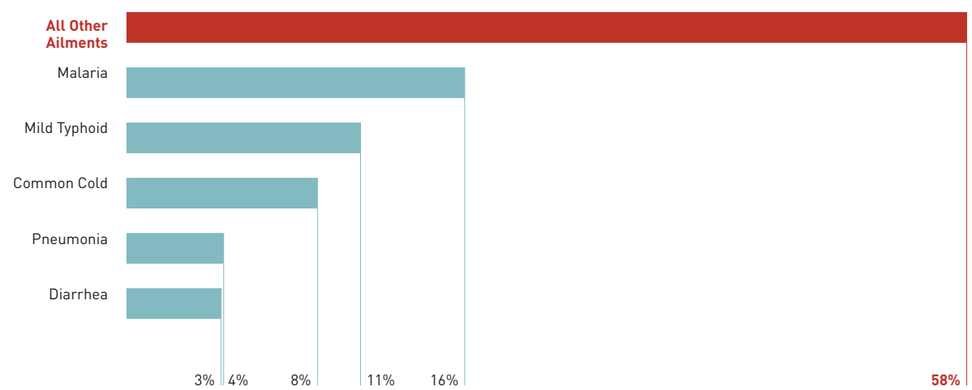
Exhibit 4.3: Services and equipment available in Kenyan health care facilities

Levels 1-3 represent 79% of Kenyan clinics[3]

	DESCRIPTION	SERVICES
LEVEL 1	Rudimentary equipment	• Imprecise malaria diagnosis • Stool sample analysis
LEVEL 2	Level 1 offerings plus hemograms with 1-3 parameters (manual)	• Imprecise hemoglobin/platelet/ white blood cell count
LEVEL 3	Basic hematology and chemical analysis equipment	• 10-parameter hemograms, including white blood cell count • Accurate diagnosis of viral & bacterial infections
LEVEL 4	Chemistry & hematology machines (~ 14 parameters each.). Basic resuscitation equipment. Culture machine, fume chamber, X-ray, ultrasound	• More accurate testing for rare ailments • TB tests • X-rays • Ultrasounds • Intensive care
LEVEL 5	Full-scale research hospital	• Most advanced testing + care

Exhibit 4.4: Clinics designed only to treat most common illnesses fail to treat most patients

Disease prevalance as a share of total diagnoses [4]



terms of service, coverage, and outcomes.

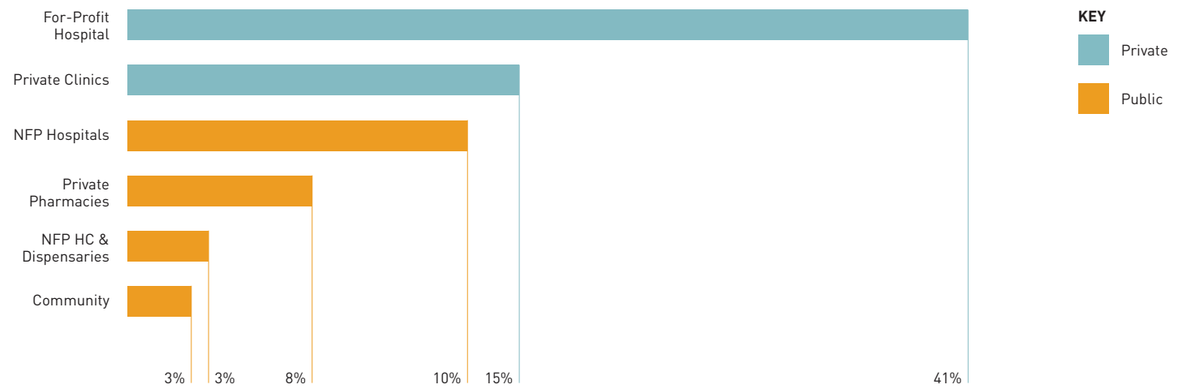
As Exhibit 4.5 shows, even the poorest consumers have elected to pay for private care as a reaction to poor public alternatives. Kenya will find great efficiencies in scaling quality preventative care and the private sector is the mechanism to reform this. The severe shortage of qualified medical staff and capital means that successful models must offer quality services and serve high patient volumes. A few private clinic networks have recently launched to target this model and early results are encouraging. But many more clinics and much more capital is needed to expand coverage to address existing market demands.

Doctors we interviewed estimate that more than 60% of patients at referral hospitals have outpatient problems.

Taking resource scarcity as an overarching constraint, successful outpatient clinic solutions will innovate on three dimensions: cost, quality, and access. Solutions will have to be high-volume and low cost. Patients realize that lower cost options often result in referrals costing more in health, time and money. Even poor patients expect professional attention and quality from health services. Our interviews strongly indicate that poor patients realize referrals often require travelling long distances and missing work, which is critical to supporting daily expenses. They are willing to invest more upfront for care near them.

Exhibit 4.5: 65% of private health expenditure takes place at hospitals

Consumers are willing to pay for quality private care[5]



5

KEY FINDINGS

This summary contains high-level insights from over one year of research and hundreds of interviews with SMEs, policymakers, investors, and patient around Kenya. We hope to improve understanding of the challenges and opportunities that entrepreneurs, investors, and advisors face when considering opportunities within Kenya's growing private healthcare space.

Our basic but most powerful conclusion is that even the poorest Kenyan consumers can and do spend on private health care. There is a growing role for market-based solutions that provide better medical outcomes at a similar price point offered today by current solutions. Kenya's still under-capitalized health care sector shows great opportunities in serving the growing mass-market. Success requires solutions that are innovative, capital intensive, low-cost, and high-volume.

There are key challenges that stand in the way of success. For investors, due diligence and proper understanding of the Kenyan health care environment are key to evaluating the potential financial returns and social impact of each initiative. For entrepreneurs, clear strategy and excellent operations to ensure quality in service delivery and tight cost control.

We expect capital to chase successful health innovations. And while payback periods will likely be long, demand is enormous and all parts of the industry remain underserved. This summary is the begnning of our work in the health sector, where we see potential for years to come.

TO LEARN MORE

Open Capital Advisors works with innovative SMEs and investors to plan for growth and investment. We have supported over 50 engagements across East Africa for a range of clients, local and global. Contact us to learn more about ways we can help you succeed.

A

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