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# MARKET WATCH

## Innovation In Namibia: Preserving Private Health Insurance And HIV/AIDS Treatment

A novel mechanism supported by donors helped this middle-income country subsidize private health insurance premiums and maintain private HIV/AIDS services.

by **Onno P. Schellekens, Ingrid de Beer, Marianne E. Lindner, Michele van Vugt, Peter Schellekens, and Tobias F. Rinke de Wit**

**ABSTRACT:** Namibia, a lower-middle-income country in sub-Saharan Africa, suffers from a huge HIV/AIDS burden. An influx of donor funding in 2004–2007 increased support for publicly provided HIV care and treatment. This raised concern that private funding would be “crowded out,” thereby leading to a reduction in the overall resources used to treat patients. In 2006 the Namibian medical aid industry, with donor support, created a special fund to subsidize private health insurance, including HIV/AIDS services. The program allowed both low- and higher-income people to be covered. Crowding out valuable private resources was avoided and the quality of HIV/AIDS services improved. [Health Aff (Millwood). 2009;28(6):1799–806]

**N**AMIBIA IS A lower-middle-income country in Southwest Africa with a yearly per capita income of around US\$3,000 (Exhibit 1)—well above the African average.<sup>1</sup> However, Namibia has one of the most unequal distributions of income of any country in the world.<sup>1</sup> What’s more, health outcomes for the poorest one-fifth of the population are considerably worse than those for the richest one-fifth.<sup>1</sup> The composition of Namibia’s health spending is atypical in Africa, with a relatively small proportion of out-of-pocket payments and a large contribution of government financing and private health insurance.<sup>2</sup> At US\$167 per year, per capita

health spending is relatively high by African standards, as is spending for HIV/AIDS (US\$65.25).<sup>2,3</sup>

■ **HIV/AIDS burden.** Namibia has a huge HIV/AIDS burden. AIDS has been the most important cause of death in Namibia since 1996.<sup>4,5</sup> Between 2004 and 2007, disease-specific (vertical) funding—in particular, from the U.S. President’s Emergency Plan for AIDS Relief (PEPFAR)<sup>6</sup> and the Global Fund to Fight AIDS, Tuberculosis, and Malaria<sup>7</sup>—increased by approximately US\$350 million, of which most was channeled through the public system. HIV/AIDS funding especially increased.

■ **Donor funding and crowding out.** In

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**EXHIBIT 1**  
**Basic Socioeconomic Indicators In Namibia**

Indicator	Amount
Population <sup>a</sup>	2,031,000 million
Gross domestic product (GDP) per capita (US\$ 2005) <sup>a</sup>	US\$3,016
Gini coefficient <sup>a</sup>	74.3
Under-5 mortality rate (per 1,000 live births) <sup>a</sup>	55 (poorest)/31 (richest)
HIV prevalence (adults ages 15–49) (2004) <sup>b</sup>	15%
Estimated number of HIV-positive people (2004) <sup>b</sup>	175,000
Antiretroviral therapy coverage <sup>b</sup>	22% (2004)/68% (2006)
Health spending per capita <sup>c</sup>	US\$167
Percent of GDP spent on health care <sup>c</sup>	4.9%
Percent of total health spending (2004) financed through <sup>c</sup>	
Government	69%
Private prepaid	24%
Out-of-pocket payments	7%
Percent of population covered by health insurance (2004) <sup>d</sup>	12.5%

**SOURCES:** See below.

<sup>a</sup> United Nations Development Program. Human development indicators. In: Human development report 2007/2008, fighting climate change: human solidarity in a divided world [Internet]. New York (NY): UNDP; 2007 [cited 2009 Aug 26]. Available from: [http://hdr.undp.org/en/media/HDR\\_20072008\\_EN\\_Indicator\\_tables.pdf](http://hdr.undp.org/en/media/HDR_20072008_EN_Indicator_tables.pdf).

<sup>b</sup> World Health Organization/UNAIDS. Namibia: Epidemiological fact sheet on HIV and AIDS. Geneva (Switzerland): WHO/UNAIDS; 2008 Sep.

<sup>c</sup> World Health Organization. World health statistics [Internet]. Geneva (Switzerland): WHO; [cited 2009 Apr 16]. Available from: <http://www.who.int/whosis>

<sup>d</sup> Namibia Medical Aids Federation. Annual conference documentation. Unpublished documentation. Windhoek (Namibia): NAMAf; 2005.

2004 it was anticipated that because of the expected increases in donor funding for HIV/AIDS, the private health sector would experience increased competition from the public sector, resulting in crowding-out effects. *Crowding out* is the phenomenon whereby new or expanded public programs meant to cover the uninsured have the unintentional effect of prompting the privately insured to switch to the new program. This means that costs incurred by the government could be much higher than expected, and health care improvements as a result of policy change might not be as robust as they should be.

Some strategies to combat the effect of crowding out are, for example, to limit eligibility to the uninsured, subsidize employer-based insurance, or apply a premium to families at higher levels of income eligibility.<sup>8–11</sup> Countries with low per capita budgets for

health and large increases in (disease-specific) donor funding, including Namibia, need to take this crowding-out effect into account. Such countries are simply too poor to forgo private contributions for health.

To address the expected crowding-out effects, a dedicated risk pool for HIV/AIDS—the Health Is Vital Risk Equalization Fund (HIVREF)—was established in Namibia in 2006. Donor funding for HIV/AIDS was channeled through this fund and used to subsidize private health insurance premiums for lower-income, uninsured people. The PharmAccess Foundation selected Namibia for this intervention because it is a small country with a positive government attitude toward innovations in health care financing, a relatively well-established private health insurance sector, and substantial donor funding for HIV/AIDS.

The “risk equalization” fund aimed to pre-

vent those who could pay for private insurance from seeking HIV/AIDS treatment and care in the expanded public sector by (1) inducing already insured higher-income groups to earmark (part of) their premium specifically for privately delivered HIV/AIDS services, and (2) using HIV/AIDS donor funds to facilitate the introduction of a new lower-cost health insurance product (including HIV/AIDS treatment) for lower-income uninsured groups. This paper describes the effects of the donor-supported risk equalization fund for HIV/AIDS in the Namibian medical aid market.

### Before The Fund

In 2004, before the risk equalization fund for HIV/AIDS was established, Namibia's insurance ("medical aid") schemes, acting as private not-for-profit entities with voluntary membership, offered mostly "high-option" products with extensive coverage for both inpatient and outpatient services. In 2004 almost 250,000 Namibians (12.5 percent of the population) had some form of voluntary private health insurance.<sup>12, 13</sup> Everyone else paid for health care out of pocket or sought care from the public sector, where basic services were delivered largely free of charge.

Mostly higher- and middle-income formal-sector workers were insured.<sup>14</sup> Annual premiums ranged between US\$684 and US\$3,420 per person—many times higher than the country's annual per capita health spending of US\$167. Employers paid a large portion of workers' premiums. HIV/AIDS treatment benefits were generally included in these high-end insurance plans, but spending limits meant that antiretroviral drugs often had to be purchased out of pocket in the second half of the insurance year, or people had to resort to the (donor-funded) public sector.

Most lower-income formal-sector workers did not have the resources to prepay for the high-end coverage, even with 50 percent premium contributions from their employers.<sup>15</sup> Therefore, this group had to pay out of pocket or rely on the public sector for general health care, including HIV/AIDS treatment and care.

■ **Paving the way.** In 2004 a number of

important developments took place in the Namibian medical aid market. Medical aid schemes' existing members (higher-income populations) were interested in improved HIV/AIDS coverage, as public-sector care fell short of their needs. Uninsured lower/middle-income groups showed interest in basic health insurance packages, including HIV/AIDS treatment, at an affordable price. Simultaneously, the schemes came under pressure from employers and the government to introduce lower-cost packages, including HIV/AIDS coverage for middle- and lower-income formal-sector workers. The Namibian business sector joined its forces on HIV/AIDS, adding to the pressure to find sustainable solutions for HIV/AIDS in the workplace. Namibian trade unions increased their pressure on companies to seek sustainable health care solutions. At the same time, donor funding to the Namibian government through disease-specific programs started to rise, which was expected to lead to a major increase in access to HIV/AIDS treatment and care in the public sector.

■ **How the fund works.** Notwithstanding these dynamics in the medical aid market, the schemes initially appeared hesitant to enter the low-cost market because of two main factors. First, given their relatively small individual risk pools and the lack of actuarial data on health risk in the uninsured population, they considered the unknown risk of a new, potentially large, previously uninsured population as too high. Second, there was concern that introducing low-cost products might lead to "cannibalization" as higher-income, already insured people might replace their traditional high-end products with these lower-cost products, thus jeopardizing the sustainability of participating schemes.

The schemes' reluctance was addressed when, with donor support, the Health Is Vital Risk Equalization Fund was established in 2006.<sup>16</sup> Under the fund, individual medical aid schemes' HIV/AIDS risk is shared in a larger joint risk pool. This induces economies of scale, prevents the exclusion of people with specific conditions (such as HIV/AIDS), and

pools resources to improve (perceived) quality of care.

The fund operated as follows. (1) It targeted both higher- and lower-income formal-sector workers. These workers all had monthly incomes above the minimum wage (US\$135 per month). It did not include the poorest of the poor, who could not afford to contribute to the premium. (2) For the already insured higher-income groups, a new product covered HIV/AIDS only, providing enhanced coverage for HIV/AIDS and improved quality (Product 1). The annual premium for this new product was US\$35.52 per person in 2006—funded out of existing premiums and not subsidized. People who bought it generally had a monthly income above US\$650. (3) For uninsured lower-income workers, a new low-cost general health insurance product comprising full primary and secondary care (including HIV/AIDS coverage) was made available (Product 2).<sup>17</sup> The average annual premium was US\$284 per person in 2006. For this product the donor provided a yearly subsidy for the HIV/AIDS component of US\$53.28 per person, for three years. Only workers with monthly income below US\$650 could buy Product 2.

To solve the potential problem of cannibalization, a one-year waiting period for enrollment in Product 2 by insured people was imposed, which alleviated insurers' concerns that people would switch immediately to the lower-cost product. In addition, setting a maximum income eligibility limit of US\$650 also alleviated concerns.

Products 1 and 2 offered the same HIV/AIDS benefits to all, regardless of income or risk profiles. These benefits included hospitalization, medication, laboratory monitoring and radiology tests, and counseling and consultations; the annual limit of the package was approximately US\$15,000.

■ **Anticipated effects.** The following effects of the risk equalization fund were anticipated: (1) Higher-income populations would be willing to pay an earmarked portion of their HIV/AIDS premium into the pool in exchange for enhanced HIV/AIDS coverage and better (perceived) quality. (2) The establishment of

the fund combined with a low-cost insurance package (Product 2) covering general health care (including HIV/AIDS treatment) and the provision of a subsidy for the HIV/AIDS part through the fund would generate demand for Product 2 from lower-income groups. This would result in additional prepaid resources for health care that formal-sector workers pay for. (3) The larger HIV/AIDS risk pool would enable better disease management and data systems, improving actuarial data and management practices.

### What The Fund Achieved

With a total subsidy payment of US\$175,000 from PharmAccess in 2007, the risk equalization fund achieved the following.

■ **Increased enrollment.** By the end of 2007, only twenty months after the fund's establishment, 34,040 formal-sector workers had enrolled in its two products (Exhibit 2). This included both higher- and lower-income workers. Enrollment constituted 30 percent of the part of the medical aid market that was actually reached by the fund (approximately 90,000 members), 12 percent of the Namibian health insurance market (out of approximately 296,000 enrollees by the end of 2007), and about 2 percent of the entire Namibian population (of two million) (Exhibit 3).

■ **Additional prepaid resources.** Of the 34,040 people in the fund, nearly 27,000 who were already insured paid a total of US\$950,000 through Product 1 as earmarked contributions to the fund out of their existing premiums to obtain HIV/AIDS coverage. The subsidy of US\$175,000 thus resulted in US\$1.1 million in additional voluntarily prepaid resources that otherwise would not have been raised, paid by 7,283 previously uninsured lower-income Namibians who bought new lower-cost insurance (Product 2) or an HIV/AIDS-only package (Product 1) (Exhibit 4). These additional resources were 6.5 times higher than the original total premium subsidy.

■ **Improved quality of care.** The quality of HIV/AIDS services measurably improved because of the risk equalization fund.<sup>18</sup> This

**EXHIBIT 2**  
**Enrollment In Health Is Vital Risk Equalization Fund Products In Namibia, 2007**

	Product 1: HIV/AIDS only	Product 2: full product including HIV/AIDS	Total
Number of already insured people upgraded to risk equalization fund products	26,757	0	26,757
Number of previously uninsured people enrolled <sup>a</sup>	4,005	3,278	7,283
Total enrolled in products	30,762	3,278	34,040
Average premium per person per year	US\$35.52 <sup>a</sup>	US\$284	– <sup>b</sup>
Average subsidy per person per year	None	US\$53.28	– <sup>b</sup>

**SOURCE:** My Health Administrators. Unpublished reports provided to PharmAccess Foundation, 2007.

**NOTE:** Dollar figures are U.S. dollars.

<sup>a</sup> Members of employer groups who could not afford Product 2 could buy Product 1. In that case, the employer paid the full premium, which for this group was US\$53.28.

<sup>b</sup> Not applicable.

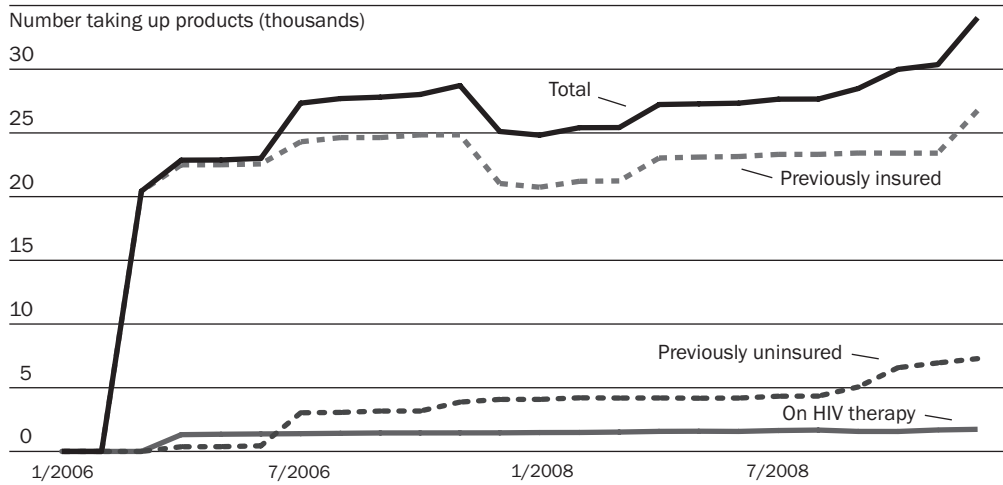
was supported mainly by the establishment of a dedicated administration and disease management entity in conjunction with the fund, known as MyHealth. Core elements of this arrangement were the appointment of HIV case managers and implementation of a comprehensive database for patient monitoring.<sup>19</sup>

The case managers closely followed the implementation of a treatment plan that was established by the treating clinicians, who had to adhere to guidelines to be able to claim payment. The arrangement allowed for follow-up

with individual patients (medication adherence, adverse effects, toxicities, and determination and interpretation of immunological and virological progression markers). Key indicators monitored included patients' CD4+ T-cell counts, plasma HIV-1 RNA loads, hemoglobin, white blood cell counts, and liver enzymes (Exhibit 5).

The disease management function thus led to the introduction of standardized treatment protocols and data requirements in the private sector, all in line with the Namibian and

**EXHIBIT 3**  
**Uptake Of Health Is Vital Risk Equalization Fund Products In Namibia, 2006–2007**



**SOURCE:** MyHealth Administrators. Unpublished reports provided to PharmAccess Foundation, 2007.

**EXHIBIT 4  
Additional Resources Prepaid As A Result Of The Risk Equalization Fund In Namibia**

	Number enrolled	Annual premium per person (US\$)	Total annual premium payments (US\$)
Already insured people who bought Product 1	26,757	35.52	950,000
Previously uninsured who bought Product 1	4,005	53.28	213,000
Previously uninsured who bought Product 2 (full product)	3,278	284.00	931,000
Total previously uninsured (Products 1 + 2)	7,283	53.28/284	1,144,000
Premium subsidy <sup>a</sup> (Product 2)	3,278	53.28	175,000
Net additional premium contributions	7,283	53.28/284	970,000

**SOURCE:** PharmAccess Foundation. Calculations based on My Health enrollment and premium data, 2007.

**NOTE:** Product 1 covers HIV/AIDS only.

<sup>a</sup> Available only to the 3,278 previously uninsured people who bought Product 2.

World Health Organization guidelines for quality of care.

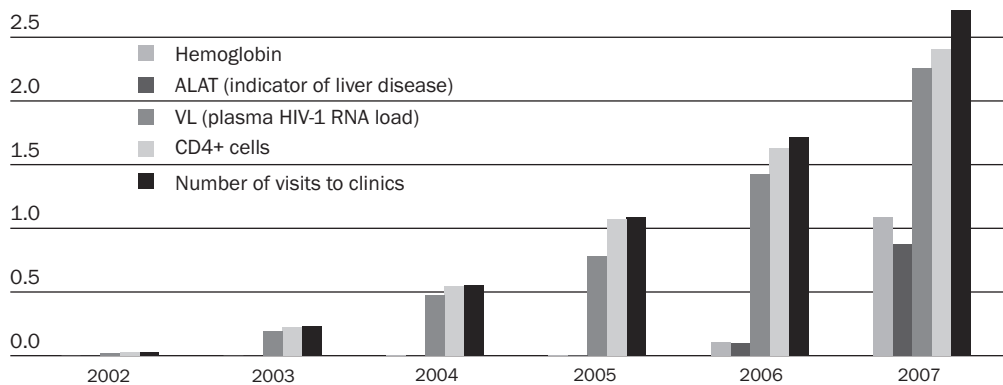
At the individual patient level, the quality of care improved greatly. At entry in the insurance scheme, about 30 percent of patients (n = 516) suffered from a severe loss of resistance (CD4 counts below 200 per microliter of blood). After a year and a half, the resistance of more than 75 percent of them had recovered; they were out of the danger zone, albeit still not completely healthy. These patients, although of course still needing lifelong treatment, thus regained a “normal” life. These results compare

favorably with the international literature on antiretroviral therapy in Africa.<sup>20</sup>

Furthermore, more people undertook voluntary counseling and testing: 7,634 had been tested by the end of 2007.<sup>21</sup> This led to increased detection and uptake of HIV-positive patients (1,736 by the end of 2007). Nevertheless, the percentage of HIV-positive people within the fund-insured population was still about three times lower than reported figures for Namibia. Hence, further efforts are needed to detect more HIV-positive people within the population reached by the fund.

**EXHIBIT 5  
Health Effects Of The Health Is Vital Risk Equalization Fund In Namibia, 2002–2007**

Number receiving laboratory services and visits (thousands)



**SOURCE:** MyHealth Disease Management Program. Unpublished data provided to PharmAccess Foundation, 2007.

**NOTES:** These results demonstrate improved highly active antiretroviral therapy (HAART) laboratory monitoring, with increased frequencies of biochemical tests for HAART toxicities, while at nearly every visit a CD4 count and plasma HIV-1 RNA load test was performed, on average twice per year, in line with current regulations. The risk equalization fund began operations in 2006.

Finally, the administration and disease management arrangement generated actuarial data on service use, treatment costs, and enrollment and retention of insured people. The average annual cost of treating a patient was approximately US\$850. The fund's administrative costs were approximately US\$10 per person per year.<sup>22</sup>

**■ Success factors, scalability, and replicability.** Critical success factors of the Namibian intervention include government policy that supports a role for the private sector in health and a willingness to accept subsidies for those in higher income brackets. Adequate private delivery structures are also needed to ensure that the quality of private care is at least as good as that of public care. This is relevant because private voluntary schemes function only if a product offers more benefits than the cost of membership, a product compares favorably with alternatives, and the perceived quality of medical services delivered is competitive. In particular, willingness to prepay depends to a great extent on the (perceived) quality of the care received.<sup>23-25</sup>

Further scaling up of this innovation in Namibia would require higher premium subsidies for a longer period of time. Experience demonstrated that the prevailing insurance fees for low-cost products were still too high for many lower-income workers.<sup>26</sup> Investment in insurers and providers focusing on low-cost primary care services would also be required. A potential risk factor in the scaling up could be the lack of a sufficiently strong regulatory framework, as widely described in the literature.<sup>27</sup> Finally, replication of the Namibian experience to other, even poorer countries would require higher subsidies and greater investment in private health structures.

### The Possible And The Reality

This intervention demonstrates that a risk equalization mechanism can raise additional prepaid resources for health that are several times higher than the total subsidy provided, financed by higher-income populations. It shows that in a country with sizable donor funding for HIV/AIDS, such a mechanism can

prevent crowding out, likely relieving the burden on the public sector. The intervention also demonstrates that through such a mechanism, quality of care can be improved.

Despite the program's early success in mobilizing additional voluntarily prepaid private funds through a donor-supported risk equalization fund, the willingness of the target groups to enroll has been increasingly affected by the expected improvements in the availability of HIV/AIDS services in the public sector, leading to crowding out and reversing the gains made.

Donors should take these points to heart. Donors need to realize that large donor funding for health can have detrimental effects such as these. In poor countries, where a means-tested mandatory contribution for health care cannot be enforced, a strategy should be applied that avoids crowding out and thus includes voluntary private insurance and risk equalization. The Namibian experience shows that this is possible.

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### NOTES

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16. The donor is PharmAccess Foundation, a Dutch not-for-profit organization engaged in strengthening health systems in sub-Saharan Africa. The PharmAccess project supporting the Namibian innovation is called the Okambilibili project (which, in the Oshivambo language, means “butterfly,” as a sign of positive change).
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