

Donald Marchand and Anna Moncef discuss the lessons to be learned from the SMS for Life initiative

# THE CASE FOR INSPIRATION!

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600

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Every so often, a special type of case study comes up. It is a fascinating story, exciting to write and rewarding to share. But not only that. Crucially, it also has the potential to touch hearts and minds and to make executives reflect on their personal and professional goals.

Our SMS for Life case series shows how technology can improve supplies of life-saving anti-malaria drugs in sub-Saharan Africa. It also highlights the inspirational leadership and commitment of Jim Barrington, the former chief information officer (CIO) of Swiss healthcare company Novartis. By motivating others to work towards an elegantly simple solution, Barrington helped to generate major social impact and also business value for his company.

This article summarises the SMS for Life story, discusses the key learning points and suggests ways in which the case series can be taught.

### The stock-out problem

Novartis is one of the world's biggest makers of anti-malaria drugs. Through its Novartis Malaria Initiative the company has provided more than 600 million Coartem treatments without profit to people who could not otherwise afford them. Most of the drugs were distributed in sub-Saharan Africa.

However, malaria continues to kill thousands of people each year in this part of the world. One reason is that government agencies there have found it hard to match supplies of anti-malaria drugs to the patients needing them, resulting in "stock-outs" at health facilities and hospitals. The problem is especially acute in poor, remote areas.

Barrington believed that information technology could help solve this long-standing supply chain problem and in late 2008 he proposed to work full-time on it for 12 months ahead of his planned retirement.

CIOs generally do not lead such projects and he immediately faced some internal scepticism within the company. Colleagues warned Barrington that the project lacked funding and would hit bureaucratic hurdles when he started dealing with outside organisations.

But he pushed ahead. In January 2009, with just an office, a phone and a computer, he began working on his idea of managing the supply chain by tapping into the increasing use of mobile phones in the developing world. He called the project SMS for Life.



*By motivating others to work towards an elegantly simple solution for improving the supply of anti-malaria drugs, former CIO Jim Barrington helped to generate major social impact and also business value for his company*



**Above from top:**

Pregnant women and children are the most vulnerable groups with over 85% of malaria deaths occurring in children under five.

Training poster of health facility storage cupboard.

### ON LOCATION

*From the beginning, we wanted to accompany Barrington on a visit to Tanzania to experience the problem and the proposed SMS solution first hand. We also wanted to make a video that would touch other professors and students, especially those who have not experienced the harsh, remote conditions of sub-Saharan Africa.*

*Jim arranged for us to accompany him on a week of visits in February 2009 to health facilities and hospitals in the Lindi District, about 500 kilometres south of Dar es Salaam, the Tanzanian capital. We also interviewed Ministry of Health officials and other NGOs involved in healthcare delivery in the country. This visit gave us the motivation to develop the best possible case to communicate this story as broadly as we could.*

### Securing support: keep it simple

Barrington's first priority was to secure internal and external support. He did this by defining the problem and potential solution very clearly so that colleagues and potential partners could understand them. He emphasised the emotional goal of saving lives and focused on motivating people to get involved while keeping the technical complexity behind the scenes.

He quickly assembled a team consisting of three Novartis employees who asked to take part and one person each from Vodafone, IBM and Google. The team members from these three companies all had specific skills and would fund themselves, helping to reduce bureaucracy.

Barrington's clear approach paid off when Roll Back Malaria, a global co-ordinating partnership, agreed to own and actively support the project. That gave him credibility when trying to attract other partners, countries and funding. Vodafone, IBM and Google decided to give technical support and Tanzania agreed to be the pilot country.

Tanzanian government officials, health workers, pharmacists and medical stores were included in project design discussions (see box page 37). A diverse group of students who were working with IBM provided fresh perspectives.

The eventual solution aimed to keep things simple for the user by collecting only the information that was absolutely required. Each week, local health workers in Tanzania would send an SMS text message reporting stock levels of anti-malaria drugs to a central database. Electronic Google mapping showed exactly where stocks were low, allowing district health officials to order drugs and distribute them as needed.

### From pilot phase to full rollout

In October 2009, nine months after Barrington had started work, an SMS for Life pilot project began in three Tanzanian districts that had big problems with anti-malaria stocks running out.

The pilot was highly successful. Stock-out rates fell sharply and the average response rate by health workers was 95%. As a result, the Tanzanian authorities approved a national roll-out to all 5,100 health facilities.

Barrington knew that many pilot projects in emerging markets are never implemented because it takes too long to apply for and receive funding from non-governmental organisations (NGOs) especially for the critical period between the end of the pilot and the full rollout. So Barrington requested and secured funding from Medicines for Malaria Venture, Novartis and the Swiss Agency for Development to cover all scale-up costs.

# 95%

The pilot in Tanzania was highly successful, stock-out rates fell sharply and the average response rate by health workers was 95% – as a result, the Tanzanian authorities approved a national roll-out to all 5,100 health facilities







**From top:**  
Learning to use SMS for Life. Health facility workers sharing training experiences. Understanding stock management at the health facility level.

# 23m

The next generation of SMS for Life—eHealth for Africa—is being introduced in all health facilities in the state of Lagos in Nigeria, which has a population of 23 million

Following its successful debut in Tanzania, SMS for Life has expanded to Ghana, Kenya, the Democratic Republic of Congo and Cameroon. It monitors other medicines too. In Ghana, SMS for Life tracks blood supplies to reduce mortality in childbirth due to haemorrhage. In addition, a national scale-up currently underway in Cameroon will also cover programmes for HIV and neglected tropical diseases.

The next generation of SMS for Life – eHealth for Africa – is being introduced in all health facilities in the state of Lagos in Nigeria, which has a population of 23 million. The programme will cover all anti-malaria medicines, malaria tests, bed nets and seven child vaccines, tracking of critical diseases and prevention of HIV transmission from mother to child.

As SMS for Life is replacing mobile phones with tablet computers, the new platform will also distribute high-quality health worker training.

Barrington has delayed his retirement and now directs the SMS for Life project. Meanwhile, other younger Novartis IT managers have volunteered their time for the initiative.

### Implications of the SMS for Life case

The SMS for Life story shows how entrepreneurial executives can break out of their usual areas of operation to design and lead projects – in this case addressing a long-standing social problem through a novel approach to public-private partnering.

The keys to the project's success were:

- setting a goal that was eye-catching and clear
- starting with a small but committed team of internal and external experts
- being fully briefed via local contacts on the area where the scheme would operate
- forming strong external partnerships

This is not just a case series for CIOs and other IT professionals. We believe that all business students and managers can benefit from it at any point in their careers, particularly if they want to apply their expertise and skills to creatively address problems in the developing world.

SMS for Life shows how responsible leadership can not only have a major social impact but also contribute to business value over time by changing the way a company operates in emerging markets. So it makes good business sense to challenge executives to lead or participate in externally focused initiatives.

### Teaching tips

The SMS for Life case series could be used in courses on leadership, information management and supply chain management. The package consists of an A, B and C case, a video, a teaching note and some slides for instructors. Case A can stand alone while Cases B and C can be used for follow-on sessions.

Our advice is to focus initially on Case A and the video. These look at the practical problems of start-up leadership, funding issues, the pilot in Tanzania and building the right team. The video is a vital part of the teaching because it brings the context of the case series to life. This first session can end on the question: will the successful pilot survive to be fully implemented in Tanzania and other countries?

Teachers could then go to Case B, which deals with the broader implementation of SMS for Life. This includes Barrington's efforts to bridge the funding gap between the pilot and full-scale rollout in Tanzania and to get other countries involved.

Finally, Case C looks at how Novartis might use the SMS for Life initiative in both the public healthcare sector and the private distribution of medicines in African countries.

The critical thing is to try stepping into Barrington's mind and shoes. Students can then try to understand his motivation and focus in taking on this unprecedented project and finding a workable solution.

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#### FURTHER INFORMATION

The "SMS For Life Case Series" won the "Best of the Best" category in the 2013 EFMD Case Writing Competition. More information can be found via [www.efmd.org/case](http://www.efmd.org/case)

#### ABOUT THE AUTHORS

Donald Marchand is professor of strategy execution and information management and Anna Moncef is a research associate and program manager, both at IMD, Lausanne, Switzerland.