15.232 Business Model Innovation: Global Health in Frontier Markets

Class 6
Public-Private collaboration: SMS for Life

Anjali Sastry
Fall 2013

Photo of Jim Barrington of Novartis in Tanzania removed due to copyright restrictions.
See http://www.zeitgeistafrica.com/projects/a-special-feature-novartis-in-africa/.

Today's plan

- Logistics and notices
  - Photographers in class Thursday, for Sloan. Please sit next to Nick if you don't want to be pictured.
  - Thursday: Assignments back to you; more on steps and timing for final presentations
- SMS for Life
  - Malaria
  - Who's involved? (contrast PDPs; BVGH, MMV)
  - How did Jim do it? key activities
  - How it worked; your assessment of value. In context of shared value ideas?
  - Next steps?
- Coming up: Great case, this time via a TED talk and a paper. Prep carefully. Interactive class session coming! We'll talk about the Gupta reading then too.
  - BRAC reading to be added for next Tuesday

What do we need to know about Malaria to discuss this case?

- dx (symptomatic, blood microscope, RDT)
- incidence; BoD
- prevention (travelers' experience vs. people who live there—very different!) vs treatment; no vaccine
- prevention: quinine, mefloquine, doxy, sulfa. pyr.,
- what about ITNs? standing water? pesticides?
  - sidebar: DDT

re BoD

Dr Ally Mohamed, Programme Manager, National Malaria Control Programme, Tanzania

The malaria situation in Tanzania

http://www.youtube.com/watch?v=J3xdQ4MAORY

first 32 seconds—underscores case data

where would you start, to make an impact on malaria?

Roll Back Malaria

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Speaking of which, a guide to global health players could come in handy

- useful brief downloadable: http://www.cgdev.org/blog/meet-global-health-family-cheat-sheet

- also see this interactive timeline: http://www.dipity.com/GHhub/Global-Health-Care/

Where in the value chain to intervene?

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GYY˙˝6fYU_]b[˙8ck b ˙6Uff]Yfg˙hc˙5WWˏYgg"˝ Bcj Ufh]g˙A U˙Uf]U˙=b]h]Uh]j Y"

Novartis AG provides healthcare solutions that address the evolving needs of patients and societies. Focused solely on healthcare, Novartis offers a diversified portfolio to best meet these needs: innovative medicines, cost-saving generic pharmaceuticals, preventive vaccines, diagnostic tools and consumer health products. Novartis is the only company with leading positions in these areas. In 2007, the Group's continuing operations (excluding divestments in 2007) achieved net sales of USD 38.1 billion and net income of USD 6.5 billion. Approximately USD 6.4 billion was invested in R&D activities throughout the Group. Headquartered in Basel, Switzerland, Novartis Group companies employ approximately 97,000 full-time associates and operate in over 140 countries around the world.

from MMV-Novartis press release 15 February 2009

Novartis was named a Super Sector Leader by the Dow Jones Sustainability Index in 2007. In the same year, 66 million patients around the world benefited from Novartis programs valued at USD 937 million. These initiatives range from drug donation and research programs to combat neglected diseases like malaria, tuberculosis and leprosy in developing nations, to patient assistance programs that help cancer patients receive the most innovative and effective treatments available.

from MMV-Novartis press release 15 February 2009

Novartis' role in malaria treatment

- Why all six elements?

  - Innovation
  - Partnerships
  - Treatment
  - Access
  - Research & Development
  - Capacity building

Since 2001, in a unique collaboration with international organizations, Novartis has provided more than 215 million Coartem treatment courses for public sector use in malaria-endemic developing countries without profit. Thanks to production efficiency gains and increasing demand for Coartem, Novartis has driven down the cost in order to make it more accessible to people with malaria. After nearly halving the price since launch, the average cost of a full treatment course is 0.80 USD.

from MMV-Novartis press release 15 February 2009

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Useful overview of SMS for Life; features video

http://malaria.novartis.com/malaria-initiative/access/expanding-access-through-innovative-channels/index.shtml

"SMS for Life"

Improving medicine access through initiative

Map of Tanzania with annotations:

UGANDA

Lake Victoria

Bukoba

Mus...

RWANDA

Mwanza

BURUNDI

KENYA

Kilimanjaro

Arusha

9 weeks surveillance visits
starting on
(1) 23rd November 2009
(2) 4th January 2010
(3) 8th February 2010

Kigoma

Tabora

Tanga

Mkoani

Dodoma
(Legistative capit...

Zanzibar

District Kigoma Rural
Region Kigoma
Zonal Store in Tabora
Live 22nd Oct 2009
51 Health Facilities

Dar es Salaam
Training 25th Sept 2009
MSD, NMCP

DAR ES
SALAAM

Mafia
Island

DEM. REP.
OF THE
CONGO

Lringa

Sumbawanga

Mbeya

District Lindi Rural
Region Lindi
Zonal Store in Mtwara
Live 1st Oct 2009
48 Health Facilities

Lake
Nyasa

ZAMBIA

District Ulanga
Region Morogoro
Zonal Store in Dar es Salaam
Live 15th Oct 2009
30 Health Facilities

...gea

Mtwara

...IAN
...EAN

MOZAMBIQUE

Image by MIT OpenCourseWare.

A mobile phone displaying the stock request message sent to registered health workers.
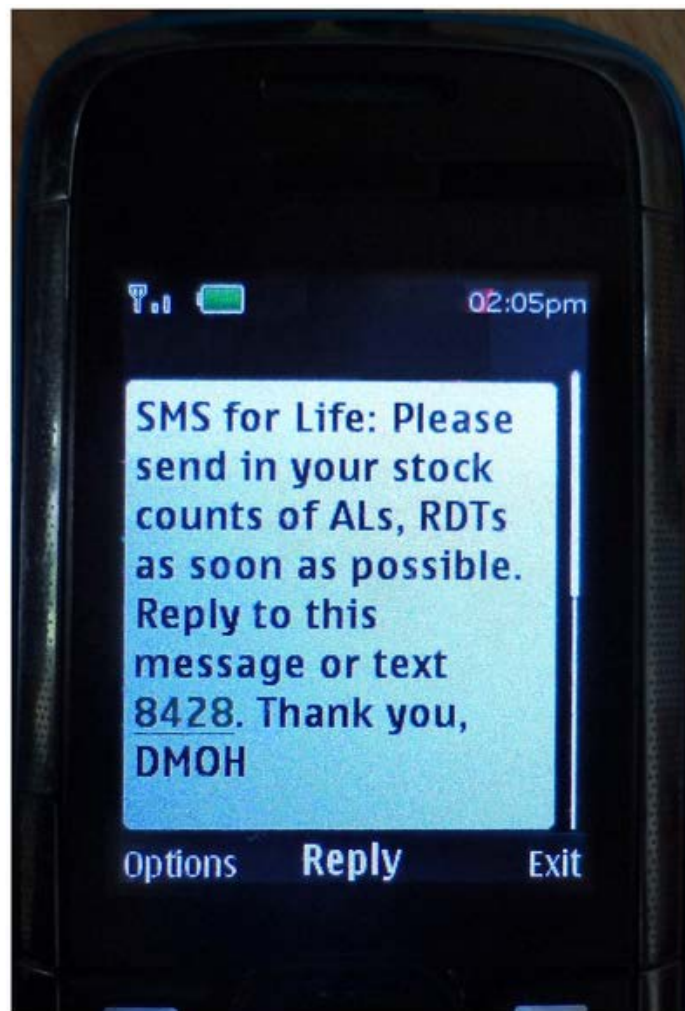
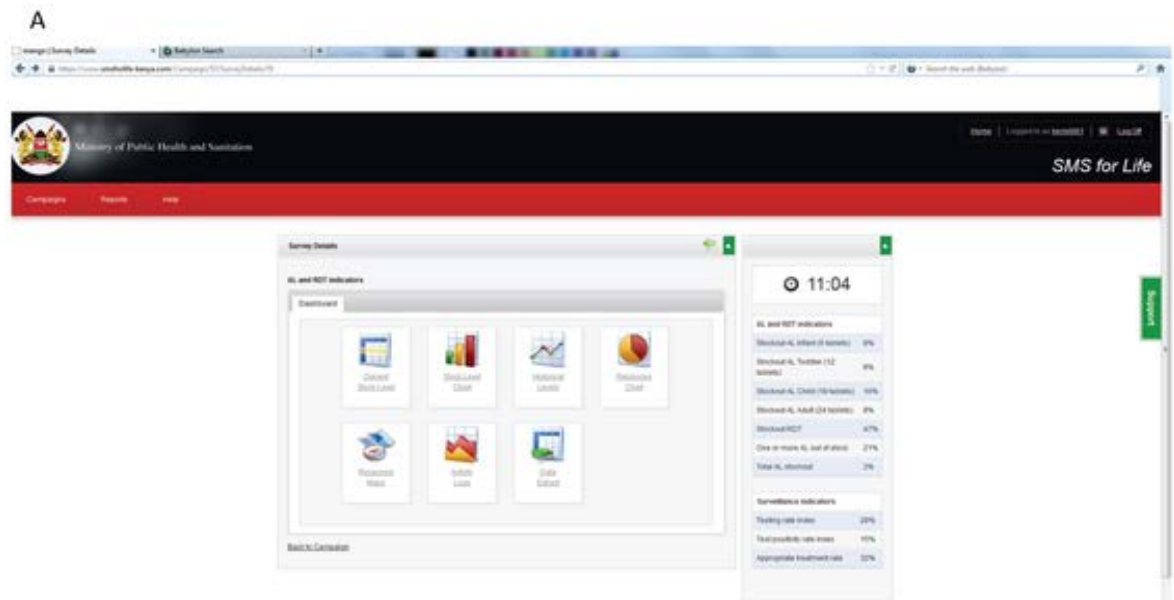Githinji S, Kigen S, Memusi D, Nyandigisi A, et al. (2013) Reducing Stock-Outs of Life Saving Malaria Commodities Using Mobile Phone Text-Messaging: SMS for Life Study in Kenya. PLoS ONE 8(1): e54066. doi:10.1371/journal.pone.0054066
http://www.plosone.org/article/info:doi/10.1371/journal.pone.0054066

Screenshots of SMS for Life web-based reporting tool.
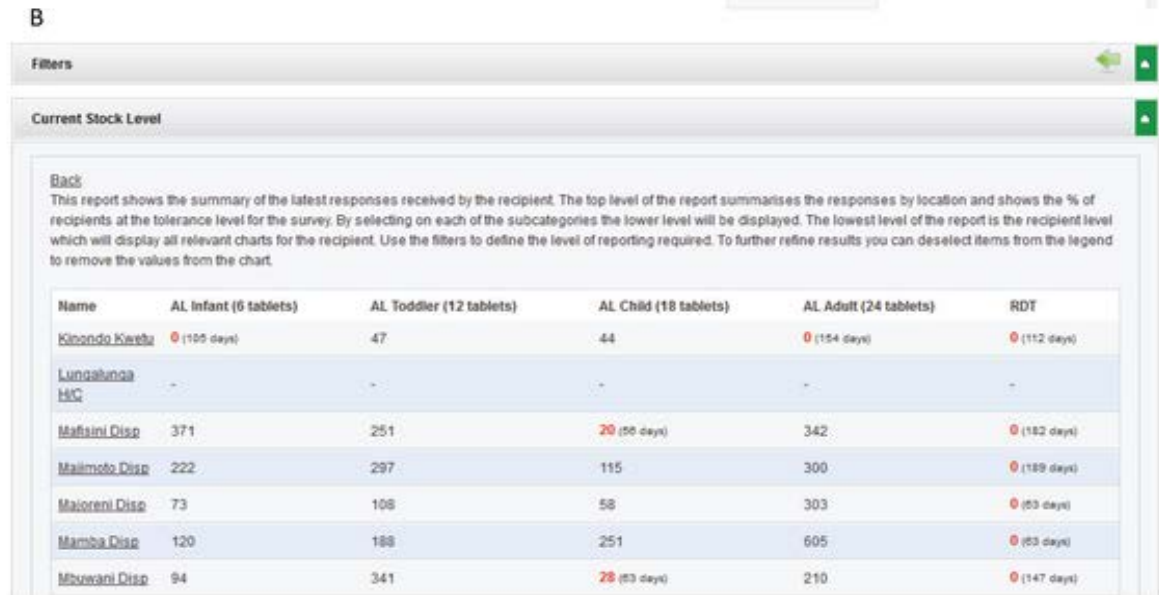
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Weekly proportion of health facilities that responded to stock request messages and SMS formatting errors.
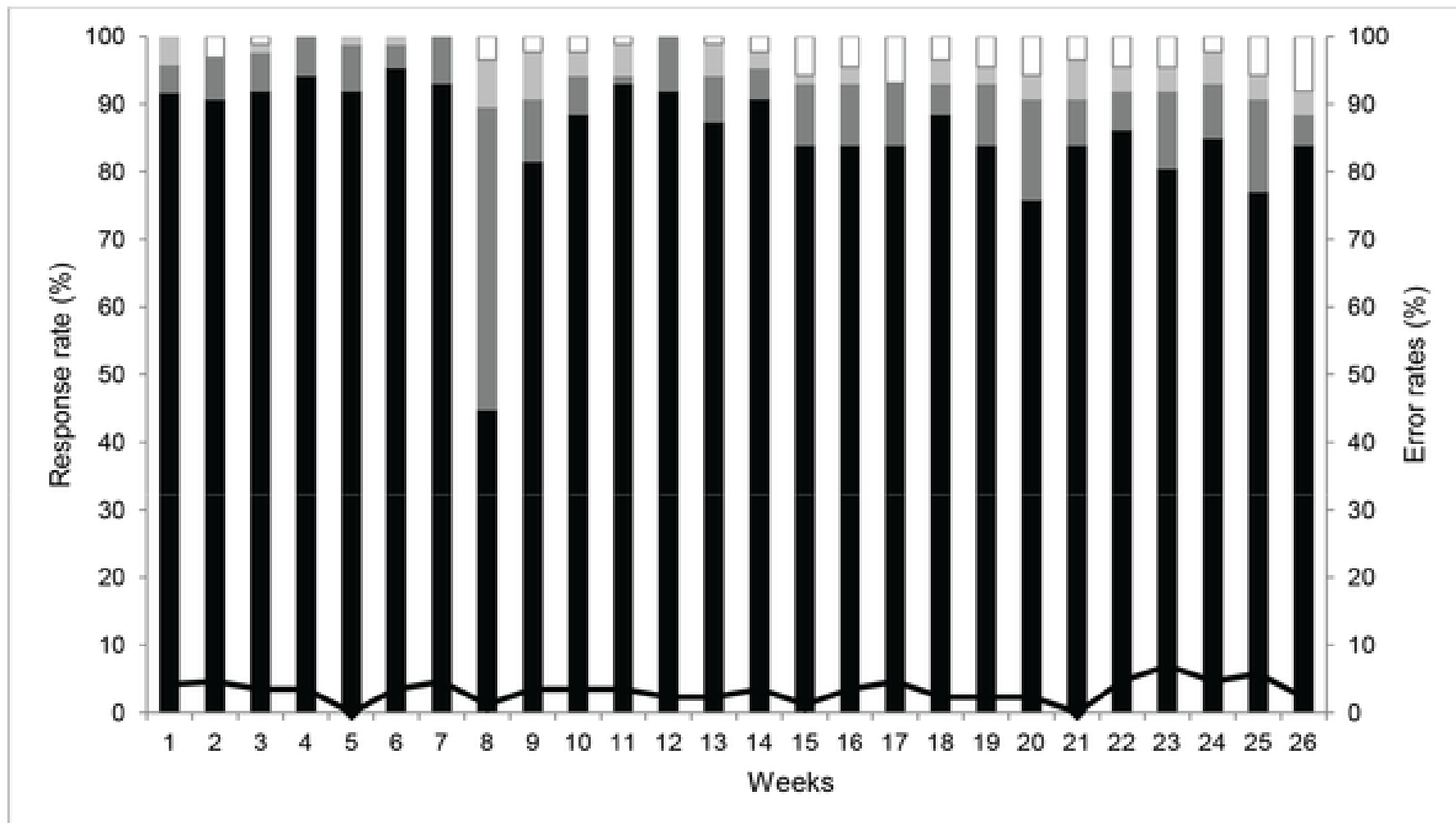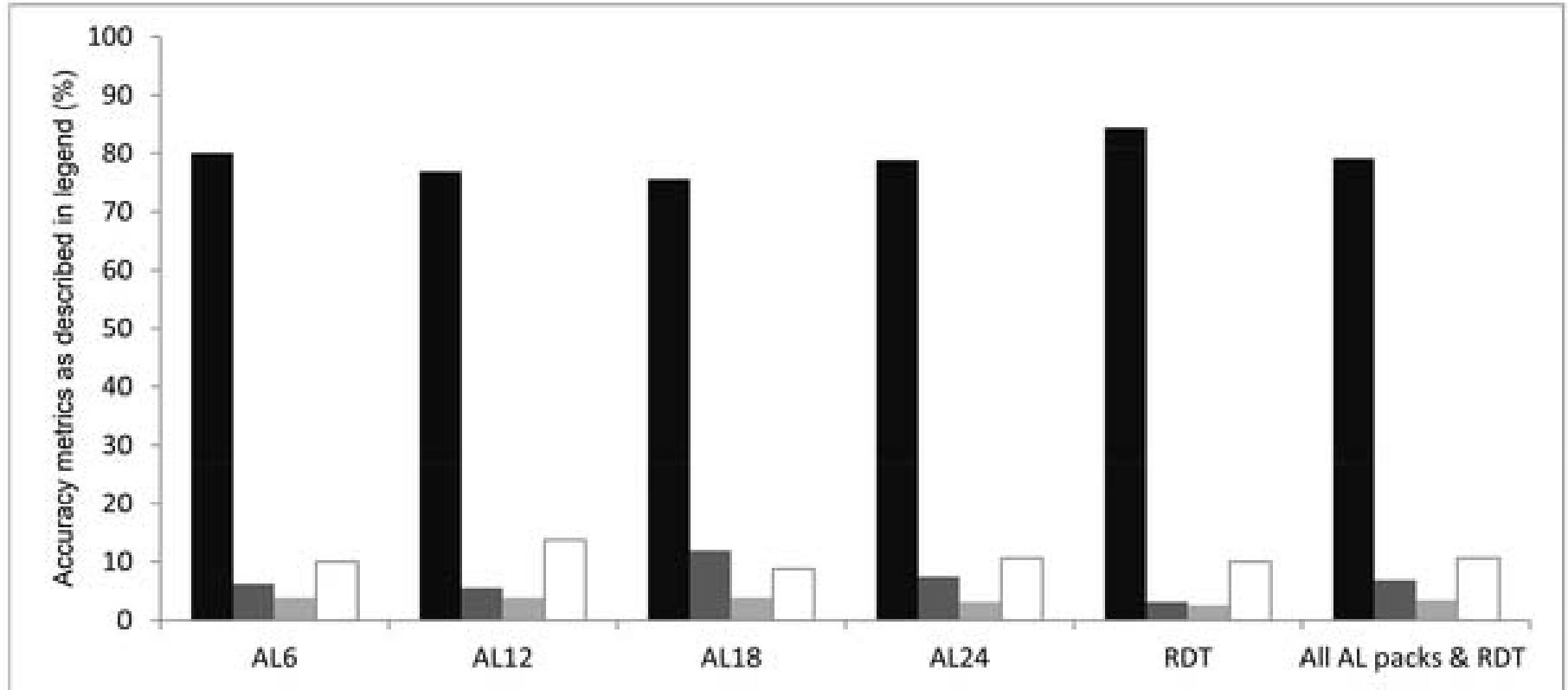

7ci fh̃Ygm;]h̃\]b^j'G"ž'Yh̃U'"'@JJbgY. ˙77!6M

Githinji S, Kigen S, Memusi D, Nyandigisi A, et al. (2013) Reducing Stock-Outs of Life Saving Malaria Commodities Using Mobile Phone Text-Messaging: SMS for Life Study in Kenya. PLoS ONE 8(1): e54066. doi:10.1371/journal.pone.0054066
http://www.plosone.org/article/info:doi/10.1371/journal.pone.0054066

Accuracy of SMS reported stock parameters.

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Githinji S, Kigen S, Memusi D, Nyandigisi A, et al. (2013) Reducing Stock-Outs of Life Saving Malaria Commodities Using Mobile Phone Text-Messaging: SMS for Life Study in Kenya. PLoS ONE 8(1): e54066. doi:10.1371/journal.pone.0054066
http://www.plosone.org/article/info:doi/10.1371/journal.pone.0054066

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Partners in the post-pilot Tz scaleup (see B case)

- **Novartis** is a pharmaceutical company based in Basel, Switzerland. In 2001, the company began a programme to produce and distribute an anti-malarial product 'Coartem' without seeking profit on the costs. By 2010, they had distributed over 320 million doses. Jim Barrington, former chief of Information for Novartis, tool the overall lead in driving the project and defining the solution for SMS for life.

- **Medicine for Malaria** Venture is a not-for-profit public-private partnership established in Switzerland, 1999. Its mission is to reduce the burden of malaria by improving the delivery of new anti-malarial drugs. Its donors include The Bill and Melinda Gates Foundation and UKAID. They invested $300, 000 to support the national roll out of SMS for life.

- **The Swiss Development Corporation** (of the Swiss Government)donated $550, 000 for national roll out.

- **Vodaphone** helped design and implement the technical solution for the pilot. It paid MatsSoft LTD to develop software for pilot, provided handsets and SMS costs.

- **IBM** provided management support of project and the software **Lotus Live** which enabled all partners to co ordinate inputs. Extreme Blue (IBM's summer intern programme) was responsible for originating of the idea of an SMS based stock management system for SMS for Life.

- **The Tanzanian Ministry of Health and Social Welfare**: The National Malaria Control Programme (NMCP) is considered the owner SMS for Life. Responsible for all project activities such as planning, implementation & evaluation; the NMCP also makes sure that all the districts selected are fully engaged in the process.

- **Vodacom** is a local Tanzanian Mobile Provider (majority owned by Vodaphone). Vodacom provided smart phones for use by District Medical Officers in the national roll out of SMS for Life.

- **PSI** (Social marketing and Communications for Health) Tanzania: PSI provides malarial control support to national Ministries of Health in over 30 countries around the world, tailoring its programmes to the environment of the location. PSI Tanzania was responsible for training of central management, district and local personnel during the roll out.

- **Roll Back Malaria Partnership** (RBM): Founded in 1998 by UNICEF, The World Health Organisation (WHO), the World Bank and United Nations Development Fund. RBM is a massive global partnership of over 500 organisations (public and private), that provide a global, neutral, and consensus building forum for the key actors in malaria control to co coordinate action against the disease. The expertise, resources and commitment of its partners that range from the academic to corporate spheres, ensure malaria remains high on political agendas and that innovative ideas such as SMS for Life can be enabled and nurtured.

DEBATES & SERIES

UP FOR DEBATE: **How do we Cure mHealth Pilotitis?**

mHealth has the potential to transform healthcare, particularly for the hardest-to-reach women and children around the world. The debate about exactly how, when, and in what form is alive and well. Successful pilots are in abundance, but most of the sector has been slow to reach scale. In short, the sector has a case of mHealth Pilotitis. In the first debate of a series on mobile health, the Skoll World Forum on Social Entrepreneurship partnered with Johnson & Johnson and Stanford Social Innovation Review to surface important lessons and learning from some of the world's leading organizations who *have* taken mHealth services to scale. This debate will also set the stage for a larger discussion on mobile for development at this year's Skoll World Forum in Oxford, UK.

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The Role of mHealth in South Africa

GUSTAV PRAEKELT
FOUNDER AND CEO, PRAEKELT FOUNDATION

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mHealth: Moving Beyond Pilots to Scale and Impact

ERICA KOCHI
CO-LEAD, UNICEF INNOVATION, UNICEF

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To Reach Scale, You Need to Build Trust

ALICE LIN FABIANO
SENIOR PROGRAM OFFICER AND ADVISOR, JOHNSON & JOHNSON

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Answering "Who Pays?" Before Scale Up

BRENDAN SMITH
VP OF CONSULTING SERVICES, VITAL WAVE

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mHealth: Not a Standalone Solution

GOPI GOPALAKRISHNAN
PRESIDENT, WORLD HEALTH PARTNERS

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Taking mHealth Applications to Scale

FRANK BEADLE DE PALOMO
CHIEF EXECUTIVE OFFICER, MOTHERS2MOTHERS

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Scale Can Happen: The MOTECH Experience

TIM WOOD
DIRECTOR, MOBILE HEALTH INNOVATION , GRAMEEN FOUNDATION

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Scaling Mobile Health Solutions the Hard Way

CHUCK SLAUGHTER
FOUNDER AND PRESIDENT, LIVING GOODS

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Programme Mwana: Designing mHealth Programmes with Scale In Mind

MERRICK SCHAEFER
SENIOR INNOVATION SPECIALIST, THE WORLD BANK

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http://skollworldforum.org/debate/how-do-we-cure-mhealth-pilotitis-critical-lessons-in-reaching-scale/

More on SMS for Life and Novartis' work in Malaria

- http://www.youtube.com/watch?v=p9R3Szi5gNo VofA story

- http://www.bbc.co.uk/news/world-radio-and-tv-14836731

- RBM SMS for Life Reports: Summary Report Detailed Report more info: http://www.rollbackmalaria.org/psm/smsWhatIsIt.html

- http://malaria.novartis.com/malaria-initiative/index.shtml

- http://malaria.novartis.com/malaria-initiative/onlinebook/index.shtml – interactive book

- http://www.malaria.novartis.com/downloads/press-releases/mobilizingfight/mobilizingagainstmalaria.pdf one-pager

- http://www.rbm.who.int/ProgressImpactSeries/docs/report6/Novartis-en.pdf WHO summary

- http://www.inclusive-business.org/2012/05/novartis-sms-for-life.html WBCSD page on SMS for Life - Improving the reliability of malaria prevention and treatment systems, May 2012.

- http://enterprise.vodafone.com/insight_news/2012-03-17-vodafone-is-improving-access-to-medicine-across-tanzania-with-novartis.jsp Vodafone writeup 2012, includes downloadable case

- IMD and HBS cases: http://malaria.novartis.com/newsroom/resources/case-studies/index.shtml

- Papers: Githinji S, Kigen S, Memusi D, Nyandigisi A, et al. (2013) Reducing Stock-Outs of Life Saving Malaria Commodities Using Mobile Phone Text-Messaging: SMS for Life Study in Kenya. PLoS ONE 8(1): e54066. doi:10.1371/journal.pone.0054066

- Barrington J, Wereko-Brobby O, Ward P, Mwafongo W, Kungulwe S. SMS for Life: a pilot project to improve anti-malarial drug supply management in rural Tanzania using standard technology. Malaria Journal 2010, 9:298.

More information on class themes

- http://www.nature.com/nature/outlook/malaria_2012/index.html for more on Malaria

- great FT supplement on malaria (April 2013) http://www.rbm.who.int/worldmalariaday/_docs/FT-WMD2013-supplement.pdf & also see 2011 story on industry pledge for affordable drugs http://www.ft.com/intl/cms/s/0/7e921dae-e2db-11e0-903d-00144feabdc0.html#axzz2fpx7agAI; 2009 piece on need for drug development http://www.ft.com/intl/cms/s/0/36e4f5a4-b2fb-11e0-86b8-00144feabdc0.html#axzz2fpx7agAI

- MMV—nice intro and review of first 10 years: https://www.youtube.com/watch?list=PL43FB4ADA7C1C02C4&feature=player_detailpage&v=Q44GvOD5-gA –this is PDP (product development partnership). Consider with respect to Sekhri, Feachem & Ni and other readings in syllabus.

- A recent set of resources related to mHealth from K4Health —just one of many potential starting points for learning more, but it has a nice roundup. Also see Skoll World Forum resources on mHealth

- WBCSD on ICT 2012 briefing—good for the big picture http://www.wbcsd.org/Pages/EDocument/EDocumentDetails.aspx?ID=14851

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