Case studies from the Vital Wave mHealth Report

Richard Anderson[1] and Noah Perin, November, 2009

In February, 2009, Vital Wave issued the report "mHealth for Development" for the United Nations and Vodafone foundations. The report showcases 51 projects in the intersection of mobile technologies and health care in the developing world. Although the report does not give background on why this group of projects was selected, they appear to be representative of current mHealth projects, so we decided to analyze the outcomes of the projects to get a sense as to whether these projects lead to sustainable solutions in the field. Our basic method was to follow the provided web links and to do independent web searches to seek information on outcomes. We collected information on sponsorship, project outcomes, project scale and sustainability, and then classified the projects into four categories:

A. Pre-deployment: No evidence of deployment of technology in the field.
B. Completed pilot: Deployment of technology, but project is now completed or no longer active.
C. Continuing pilot: Continuing deployment of technology at a modest scale.
D. Scaled and sustained system: Large scale deployment that is continuing.

We were subjective in drawing the line between pilot and scaled deployment, with a general thought of a scaled system was one that impacted thousands of people. (The vast majority of projects classified as pilots were well below this level). Of the 51 projects, we classified 9 as pre-deployment, 27 as completed pilots, 8 as continuing pilots, and 7 as potentially being at scale. The seven scaled projects, ranked from largest to smallest by our estimate of size were:

1. Project Masilukete: millions of HIV related messages sent with SMS in South Africa.
2. TRACnet: Rwanda HMIS with mobile data entry in collaboration with Voxiva.
3. Phones for Health: Large scale cell phone project launched by PEPFAR.
4. Frontline SMS: A platform for SMS communication used in many projects.
5. EpiSurveryor: Widely used software for Mobile Data Collection.
6. EpiHandy: Software for Mobile Data Collection.
7. Alerta DISAMAR: Health incidence tracking by mobile phone for Peruvian Navy.

The first three projects are all being conducted on large scale, and impact a significant number of people. The next three are all software platforms which achieve scale by being used in multiple projects. (The Nokia Data Gathering project was also a candidate for this group – but we did not find many instances of its use.) The final project on this list is a Voxiva project for the Peruvian Navy. We were not able to find information on its current scale, so are not confident of its classification.

Our classification of projects along with brief summaries is given in the following table. Further descriptions of projects can be found in the Vital Wave report.

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Project name	Summary	Status / Results	
1. Freedom HIV/AIDS Project	HIV themed cell phone games	Games no longer available on website	B
2. Learning about Living	SMS Question and Answer	Part of broader HIV education effort	C
3. HIV/AIDS Video for Phone	Youth targeted movie	Only one movie created	B
4. HIV Confidant	Secure HIV results on cell phone	No longer active	B
5. Project Masiluleke	Cell phone public service messages	Millions of messages sent. Ongoing.	D
6. Text to Change	SMS Quiz on HIV	Ongoing effort, active	C
7. Cell-PREVEN	Voice messaging for data reporting	Completed research study	B
8. Ca:sh (India)	EMR with decision support	No longer active	B
9. CHITS (Philippines)	Open source EMR	Workshops are ongoing	C
10. Dokoza System	Mobile Data Collection Pilot	Website only show a patent	B
11. EpiHandy	Data Collection Platform	Platform available for use.	D
12. EpiSurveyor	Data collection platform	Widely used data collection software	D
13. IHISM (Botswana)	SMS Question and Answer system	Project no longer funded	B
14. Rural Health Infrastructure	HMIS System	Ongoing at small scale	C
15. Mobile Healthcare System	Proposed work, but nothing specific	No evidence that this was launched	A
16. Map of Medicine on PDA	Medical resources on PDA	Completed pilot	B
17. Nokia Data Gathering	Form based data collection platform	Free platform, available for use.	C
18. PDAs for Malaria	Spatial data collection	Report issued on completion of pilot	B
19. Phones for Health	PPP with cell phones for HIV	Large scale project launched by PEPFAR	D
20. TRACnet	Rwanda HMIS with mobile data entry	Ongoing project at National scale in Rwanda	D
21. Cell-Life Project	SMS communication of health info	Project no longer active	B
22. Chinese Diabetic Assistant	Interactive activities for elderly	Ongoing user centered design project	C
23. Colecta-PALM	Survey data collection	Small research study in Peru and Kenya	B
24. Mashavu	Data collection for child sponsorship	Student run pilot project in Tanzania	A
25. MediNet	General mobile technology proposal	No evidence of results from this MSR Project	A
26. MCST (India)	Cell phone app for HIV Management	Software firm "seeking partner"	A
27. Mobile Health Monitoring	Diagnostic devices attached to phones	Research project, possibly on going	B
28. Phoned Pill Reminders	Daily voice calls to TB patients	Pilot completed with high compliance rates	B
29. SIMpill	Pill box that sends SMS, cool idea!	Company focus redirected	B
30. Virtual Health Pet	User friendly reminder system	No evidence of continuation	A
31. Enhancing Nurses Access	Technology training with PDAs	No information available	B
32. HealthLine	Medical information using voice	Active research project in Pakistan	C
33. Mobile HIV/AIDS Support	Project planning to use PDAs for HIV	Did it even launch?	A
34. Nursing Program	Distance education program	Not clear if it continued.	B
35. UHIM (Uganda)	Communication network with IR	Completed project, obsolete technology	B
36. AESSIMS (India)	Disease tracking on phone	Completed pilot	B
37. Alerta DISAMAR	Disease tracking by SMS and voice	May be in continued use with Peruvian Navy	D
38. FrontlineSMS	Platform for SMS applications	Widely used for health applications	D
39. GATHER	Disease reporting and tracking project	No evidence, web pages have disappeared	B
40. Handhelds for Health	Project proposal for mobile health	Seeking money	A
41. RICE (Vietnam)	Needs assessment study	No published results or follow on	A
42. Tamil Nadu Health Watch	Reporting project after 2004 tsunami	No evidence of continuation	B
43. Cell Phone Applications	Broad range of proposed application	No published results yet	C
44. Digital Inclusion Kit	Medical devices for cell phones	Completed technology pilot	B
45. Ericsson, Apollo Hospitals	Planned remote medicine project	Press release	A
46. HIV Decision Support	PDA based decision support tools	Early pilot on windows mobile	B
47. M-DOK (Philippines)	SMS with remote doctors	Pilot project, no evidence of continuation	B
48. Mobile E-IMCI	Study of PDA version of IMCI	Completed study with academic paper	B
49. Mobile Telemedicine	Remote communication platform	Nothing available on pilot results	B
50. Nacer	Data collection for maternal health	Listed as Voxiva case study	B
51. Teledoc - Jiva Healthcare	Communication for remote diagnosis	Completed pilot	B