

Jonathan Leland, Belinda Chiang, Dan Wiesenthal, Ying Sun

WatotoWanaoendesha Hotline

Diarrheal Deaths in Kibera

- Leading killer of children <5
- Variable causes but...
- Extremely treatable
 - Oral Rehydration Salts
 - Immediate clinic/hospital treatment for severe cases
- Barriers
 - Perception barrier to ORS use
 - Self-medication



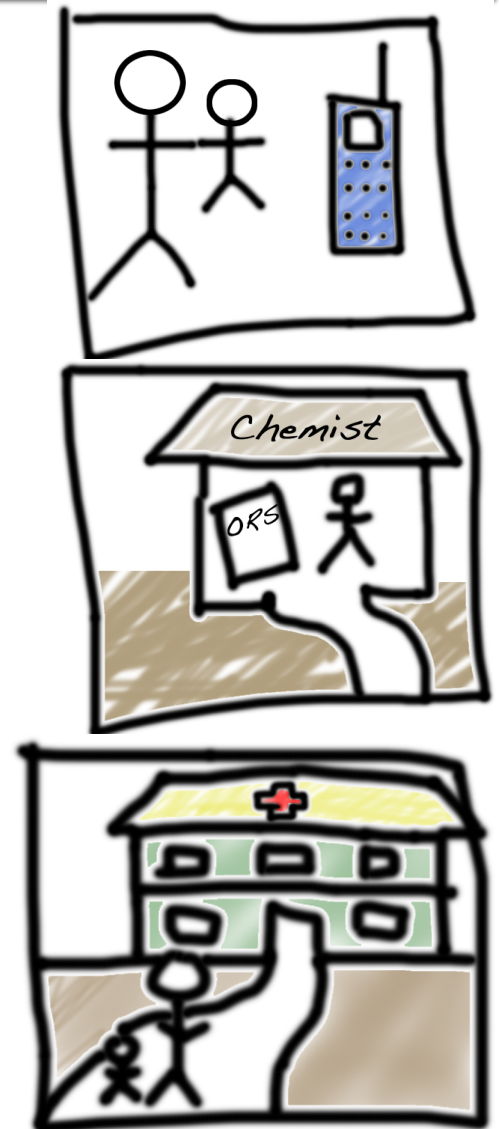
Joyce Achieng

- 24-year-old mother
- Daughter Topista
 - 2 years old
 - Acute diarrhea
- Clinics are closed
- She needs to help her daughter and feel like she is taking real medical action when she does.
- In a world where there are no trustworthy sources of personalized medical advice available to her.



WatotoWanaoendesha Hotline

- 24-7 free personalized hotline for treating childhood DD
- **Assessment:** Provides personalized assessment of whether the child needs to seek immediate medical attention or in-home care
- **Guidance:** Counsels caretakers in the use of ORS, best home practices, and monitoring of their child's health
- **Follow-Up:** Try to ensure follow-throughs with follow-ups and notification to local clinics
- http://youtu.be/sQnJW_Nk2tQ



WW Hotline Inputs

- Triage
 - Not conscious or sleepy and hard to rouse
 - Has not peed today
 - Blood in stool
- Assessment
 - Age
 - Duration: at least 2 days
 - Fever or warm to the touch
 - Vomiting
 - Urine output that is half as much as normal
 - Is the child getting worse?

Why the WW Hotline?

- Cellphone Distribution
- 24-7 Assistance
- Free, Immediate and Personalized Care
- Educate and Change Perceptions Around ORS
- Low Costs Compared to Live Person Operators

Viability

Topic	Details	Challenge
User acquisition	Leverage existing outreach channels (clinic, CI, CHW); explore new channels (SMS ads, outdoor ads); unclear if people will trust health advice over the phone to make the initial call	High
CDC/CFK buy-in	Initial confirmation on need and impact; comfort level with triage and assessment still unclear	High
CDC/CFK skills & capacity	Sufficient skills Low demand on CDC /CFK staff time	Low
Cost	\$12,000 (3-month, 100 HH pilot); \$26,000 (annual budget, full catchment population)	Medium
Competition	None (that we know of)	Low
Government	Likely to be supportive, no regulatory restrictions	Low
Stakeholders	No other partner required; mobile operator support would be beneficial and likely	Low

Moving Forward

- Prototype testing
 - Adoption: mothers will make the initial call
 - Compliance: mothers will follow directions over the phone
 - Frequency, timing, medium of the exchange
- Investigate CDC-related viability questions
 - Buy-in on medical algorithm
 - Budget and resources
- Explore potential partnerships in Kenya and the U.S.

WW Hotline Algorithm

	>2 days	Fever	Vomit	low uop	worse
>2 days	x				
Fever	defer	x			
Vomit	defer	hospital	x		
low uop	defer	defer	defer	x	
worse	defer	hospital	hospital	defer	x
	>2 days	Fever	Vomit	low uop	worse
Fever, >2	x	x	hospital	defer	hospital
Vomit, >2	x	hospital	x	defer	defer
low uop, >2	x	defer	defer	x	
worse, >2	x	hospital	defer		x
low uop, fever	defer	x	hospital	x	hospital
low uop, vomit	defer	hospital	x	x	hospital
worse, low uop	defer	hospital	hospital	x	x

Budget

		3 month pilot		Full catchment	
Usage	Number of households		100		4,500
	Number of calls		125		22,500
	Number of calls needing nurse on-call		6		1,125
	Number of calls leading to clinic visits		25		4,500
Technology development	2 engineers for 3 weeks	\$	10,000	\$	-
	1 engineer for 3 weeks	\$	-	\$	5,000
Marketing	1 set of material per household	\$	125	\$	5,625
	2 SMS per household	\$	3	\$	113
	Other (e.g. billboards, ads on walls)	\$	200	\$	1,000
Cost of service					
Regular call	5 min voice, 1 SMS	\$	25	\$	4,500
Nurse on-call	0.5 FTE staffed to receive call	\$	-	\$	3,000
Nurse on-call	5 min voice	\$	1	\$	211
G&A	0.5 FTE Program Manager/Admin	\$	-	\$	5,000
	Overhead (food, transport, IT, etc)	\$	1,500	\$	1,500
Total		\$	11,854	\$	25,948