Online Supplementary Document

Table s1: respondents, health care workers and pharmacy staff			
INDIA	**Total**	Rural	Urban
Health care workers, total (public and private)	134	73	61
Public:			
Clinical officers	10	--	10
Nurses	31	--	31
ASHAs	30	30	--
Private:			
GPs with degree (MBBS)	32	15	17
GPs without degree (no MBBS)	31	16	15
Pharmacy staff, total	121	60	61
Owners/managers	61	30	31
Assistants	60	30	30
KENYA	**Total**	Rural	Urban
Health care workers, total (public and private)	117	72	45
Public:			
Clinical officers	45	27	18
Nurses	45	27	18
Private: doctors	27	18	9
Pharmacy staff, total:	144	80	64
Owners/managers	74	42	32
Pharmacy assistants	70	38	32

Notes: interviews were spread across 4 states in India (Uttar Pradesh, Tamil Nadu, Maharashtra, West Bengal) and 4 provinces in Kenya (Nairobi, Nyanza, Rift Valley, Coast). India abbreviations: ASHA (Accredited Social Health Activist); GP (General Practitioner); MBBS (Bachelor of Medicine, Bachelor of Surgery).

Table s2: acceptable speed of action	INDIA	KENYA
Acceptable speed of action:	(N = 1013)	(N = 1001)
Less than one full day	30 %	30 %
One full day	19 %	23 %
One-and-a-half to two days	28 %	28 %
Three days or longer	23 %	19 %
Mean desired time (days) to recovery	**1.7**	**1.6**
Standard deviation	1.2	1.07
Confidence interval (95%)	1.6-1.8*	1.5-1.7*
Note: carers data from R1 and R2 surveys, equally weighted. *At 95% CI.		

Table s3. Reasons given for ranking antibiotics or ORS first
(for ranking results see Table 3)

Ranking for:	Antibiotics: why ranked 1st (top mentions)		ORS: why ranked 1st (top mentions)	
	INDIA	**KENYA**	**INDIA**	**KENYA**
Most effective at treating the cause of diarrhea	(N = 211) Reduce frequency of bowel movements (52 %); Gives quick relief (22 %); Stops diarrhea immediately (12%)	(N = 181) Stops diarrhea … (51 %) …quickly (33 %); Kills bacteria/germs (27 %)	(N = 101) Hardens the stool (29 %); Reduces frequency of bowel movements (25 %); Improves energy (23 %)	(N = 140) Stops diarrhea… (58 %) …quickly (33 %); Rehydrates (25 %); Improves energy (11 %)
Strongest medicine for diarrhea	(N = 252) Stops diarrhea immediately (35 %); Stops diarrhea quickly (20 %); Any speed of action (72 %)	(N = 222) Stops diarrhea (36 %) Kills bacteria/germs (14 %); Trusts antibiotics (12 %)	(N = 93) Speed of action (40 %); Replenishes lost fluids (28 %); Improves energy (24 %)	(N = 117) Stops diarrhea (40 %); Replenishes fluid (15 %); Improves energy (15 %)
Easiest to get children to take	(N = 87) Easy to give (67 %); Easy to prepare (9 %)	(N = 140) Sweet taste (31 %); Good taste (24 %); Comes in syrup form (14 %)	(N = 126) Easy to give to children (47 %); Good taste (44 %)	(N = 157) Good taste (33 %); Sweet (25 %); Is given in liquid form (15 %)
Best use of money to treat diarrhea	(N = 294) Stops diarrhea immediately (36%) Affordable (13%)	(N = 199) Affordable (42 %); Effective (21 %); Speed of action (17 %)	(N = 110) Affordable (38 %); Easy for children to take (21 %); Stops diarrhea immediately (15 %)	(N = 203) Affordable (53 %); Free (20 %); Effective (14 %)

Notes: R2 survey. *Used at last episode of diarrhea.

Table s4: views from pharmacy staff and health care workers

Statements:	INDIA				KENYA			
	Pharmacy staff*		Health care workers		Pharmacy staff*		Health care workers	
	N = 61 (below are %)		N = 134 (below are %)		N = 74 (below are %)		N = 117 (below are %)	
	Agree	Disagree	Agree	Disagree	Agree	Disagree	Agree	Disagree
Mothers like to be given real medicines.	98 %	2 %	97 %	3 %	91 %	9 %	95 %	4 %
Mothers like to be given the most powerful treatment for diarrhea.	82 %	18 %	84 %	16 %	86 %	14 %	90 %	9 %
Antibiotics are the most effective treatment for diarrhea.	74 %	25 %	74 %	19 %	57 %	42 %	25 %	74 %
Mothers do not really understand that ORS rehydrates the child.	36 %	61 %	39 %	54 %	55 %	41 %	54 %	45 %

Note: 'agree' and 'disagree' do not sum to 100% due to a few 'don't know' responses (not shown). *Only owners/managers were asked for this exercise.

Table s5: treatments given at last episode of diarrhea ~ India detail by socioeconomic grade
(see also Table 5, treatments given at last episode of diarrhea)

	ever-users of ORS				never users, but aware of ORS			
Socioeconomic grades: A-E urban, R1-4 rural	A,B,C1	C2,D,E	R1,R2	R3,R4	A,B,C1	C2,D,E	R1,R2	R3,R4
Main treatments given:	(N = 228)	(N = 37)	(N = 66)	(N = 193)	(N = 185)	(N = 51)	(N = 47)	(N = 108)
Antibiotics	45 %	57 %	63 %	73 %	49 %	49 %	55 %	60 %
ORS	89 %	95 %	96 %	91 %	--	--	--	--
SSS	67 %	68 %	44 %	50 %	75 %	66 %	54 %	50 %
Other home remedy	22 %	19 %	24 %	9 %	18 %	10 %	9 %	9 %

Combined results from R1 and R2 surveys, weighted equally. Kenya detail by socioeconomic grade not included due to lack of notable differences between grades. Socioeconomic grades: ABC1 middle to high grades; C2DE lower to lower-middle grades; R1R2 rural middle to high grades; R3R4 rural lower to lower-middle grades.

Table s6. Duration of last diarrhea episode, caregiver reaction time, and timing of treatment administration

	INDIA		KENYA	
Duration of last episode of diarrhea:	Ever-users of ORS (N = 529)	Never-users but aware of ORS (N = 484)	Ever-users of ORS (N = 534)	Never-users but aware of ORS (N = 467)
1 day	2 %	3 %	7 %	9 %
2 – 4 days*	62 %	64 %	64 %	66 %
5 – 7 days*	30 %	32 %	25 %	21 %
8 or more days	5 %	3%	4 %	3 %
Mean duration, in days (standard deviation)	4.3 (2.3)	4.0 (2.0)	4.2 (3.5)	3.7 (2.5)
Median duration, in days (IQR)	4 (2)	3(3)	3 (3.2)	3 (2)
Reaction time at last episode of diarrhea:				
Carer took any action as soon as they noticed diarrhea	75 %	(N = 1013)	60 %	(N = 1001)
Median waiting time, among those who waited:	1 full day	(N = 253)	1 full day	(N = 400)
No treatment at last episode, before diarrhea ceased	N = 5	N = 20	N = 40	N = 104

	Antibiotics	ORS	SSS	Antibiotics	ORS	SSS
Treatment administration: day started, days continued	N = 313	N = 284	N = 302	N = 252	N = 212	N = 135
Started (median, day of episode): (IQR)	Day 2(1)	Day 2 (1)	Day 1 (0)	Day 2(2)	Day 2(1)	Day 1(1)
Duration of administration (median): (IQR)	3 days (2)	3 days (2)	3 days(1.5)	4 days(2)	3 days(1)	2 days(1)

Notes: R1 and R2 surveys, equally weighted, for taking action and waiting time; round 1 only for treatment administration day started, days continued.
*Grouped data (e.g., '2-4 days' combines responses for 2, 3, and 4 days). Treatment administration at last episode of diarrhea.

Table s7: primary sources of main treatments used at last episode of diarrhea, and whether recommended

	INDIA		KENYA	
	Antibiotics	ORS	Antibiotics	ORS
Where obtained:	N = 313	N = 284	N = 252	N = 212
Private	80 %	80 %	27 %	21 %
Public	19 %	18 %	48 %	67 %
Recommended*	95 %	75 %	77 %	89 %

Notes: R1 survey. *Recommended by healthcare professional or pharmacy/drugstore staff.

Table s8. Preferred presentation form, pack size	INDIA	KENYA
Preferences for presentation form: most preferred choice*	(N = 609)	(N = 600)
Conventional sachet	41 %	21 %
Ready-to-drink, box	23 %	21 %
Ready-to-drink, plastic bottle	19 %	29 %
Syrup, followed by water	12 %	16 %
Tablet, self-dissolving in water	3 %	7 %
Alternative sachet	2 %	5 %
Preferences for ORS pack size: most preferred choice*		
200 mL	78 %	59 %
1 L	22 %	41 %

*R1 survey. Illustrations were shown to respondents, who then indicated their preferred choice; the presentation choices were introduced as options for 'a new product to treat diarrhea', and the usage of each was described to respondents using simple statements.