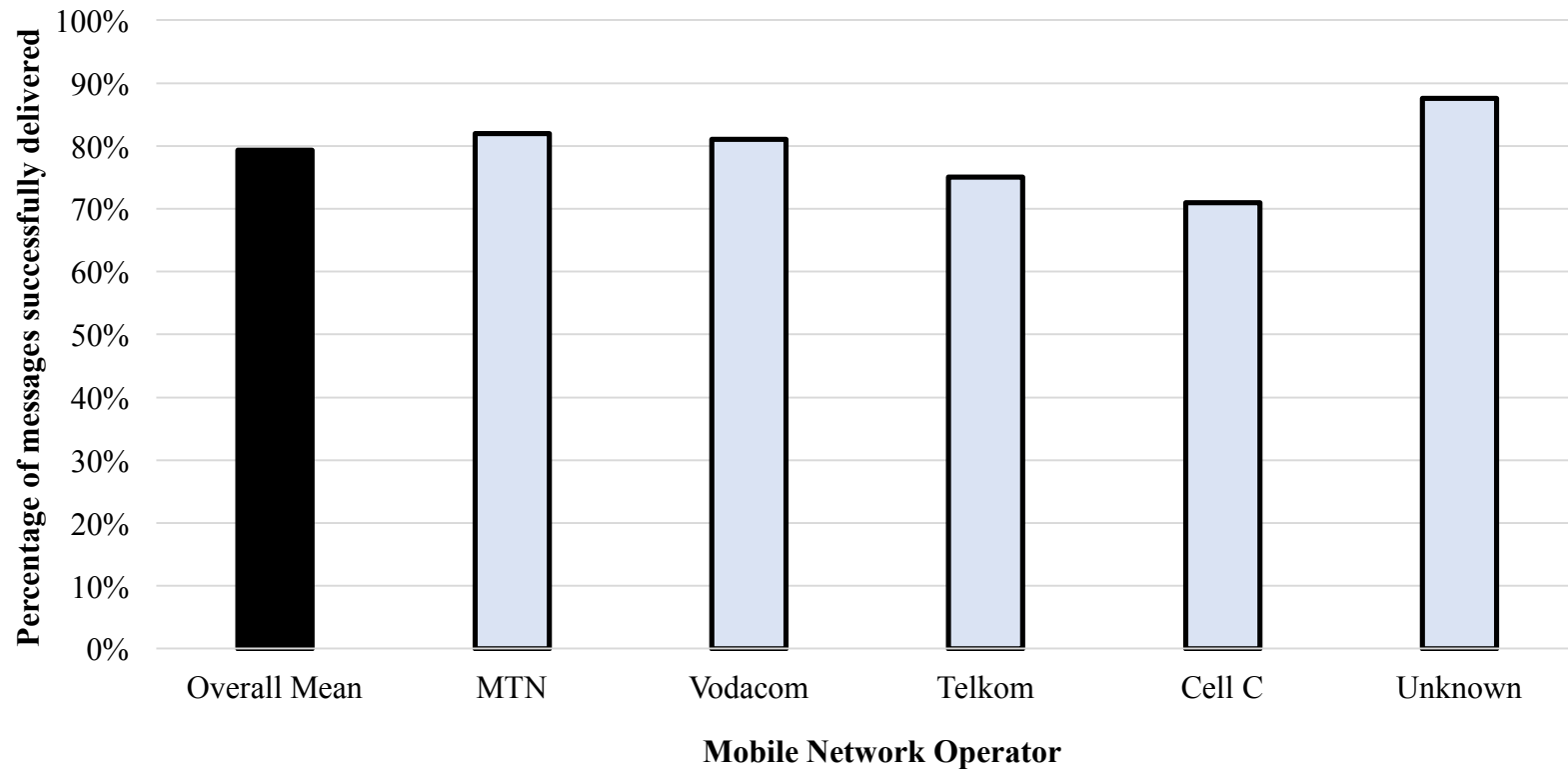
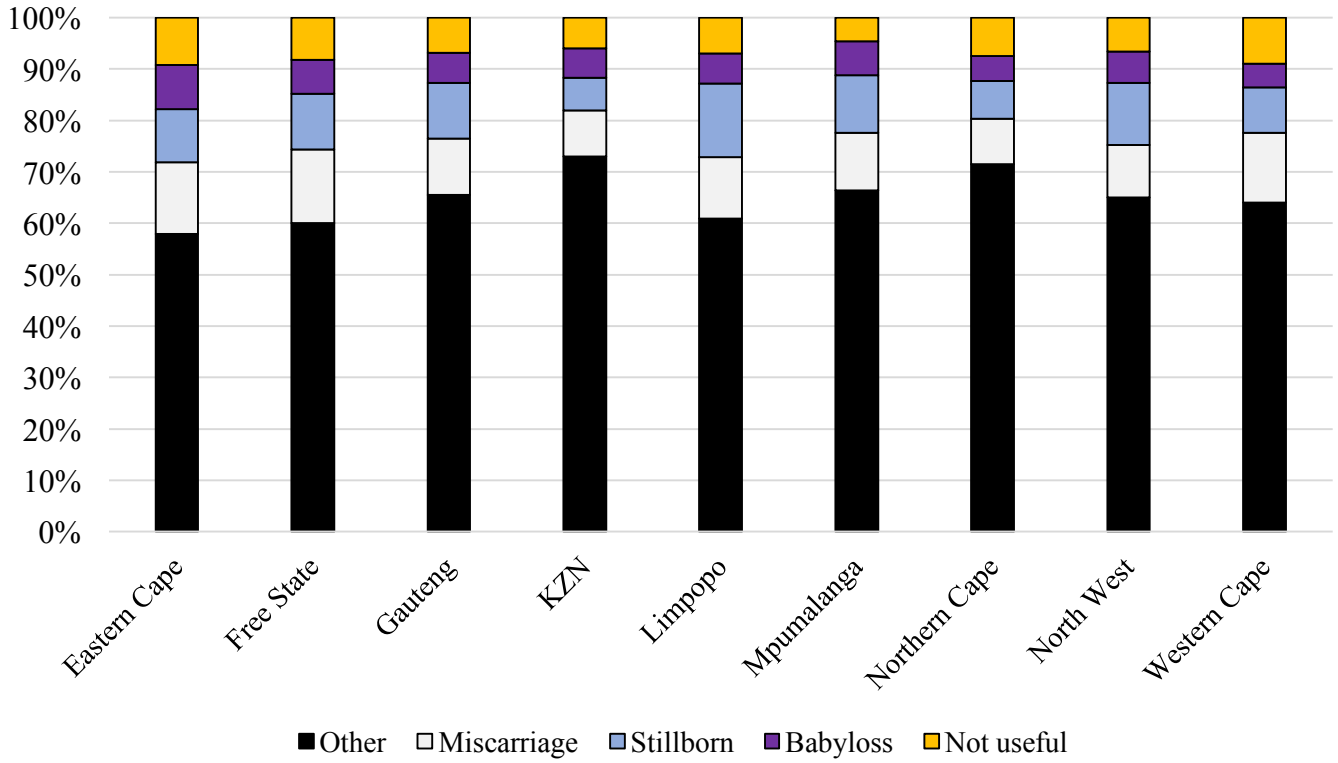


*Supplementary Figure 1. Proportion of messages successfully delivered by mobile network operator from 14 August 2014 to 5 June 2017*



**Supplementary Figure 2. Leading reasons for opting out among MomConnect registered users by provinces**



**Supplementary Table 1. Message delivery sets and delivery schedule**

	Message Sets	Number of messages per week	Number of weeks	Total number messages	Days of send
<b>Pregnancy</b>					
Sign up <30 weeks	Standard	2	Week 5 - week 40 = 35 weeks	74	Mon, Thu
Sign up at 31-35 weeks	Later	3	Week 31-week 40=10 weeks	31	Mon, Wed, Fri
Sign up > 35 weeks	Accelerated	15 messages, max 1 per day		15	Mon, Wed, Fri
	Accelerated	5 messages, max 1 per day		15	Mon, Tue, Wed, Fri
	Accelerated	5 messages, max 1 per day		15	Mon - Fri
	Accelerated	5 messages, max 1 per day		15	Mon - Sun
<b>Baby</b>					
Weeks 0-14	Baby 1	2	15	30	Mon, Thu
Weeks 15-52	Baby 2	1	37	38	Mon
<b>Total baby</b>				67	
<b>Loss Messages</b>					
Miscarriage		2	3	6	Mon, Thu
Stillbirth		2	3	5	Mon, Thu
Baby loss		2	3	6	Mon, Thu
<b>Total loss</b>				12	

**Supplementary Table 2. Message delivery content by thematic area and messaging package**

Message thematic area	Pregnancy message package		Postpartum message package				Total	
	Standard		Baby 1		Baby 2			
	No.	%	No.	%	No.	%	No.	%
Pregnancy care	33	45%	0	0%	0	0%	33	23%
Infant feeding	5	7%	8	27%	11	29%	24	17%
Essential newborn care	1	1%	13	43%	11	29%	25	18%
HIV, TB, Chronic diseases	13	18%	2	7%	2	5%	17	12%
Diarrhea, water, sanitation	5	7%	1	3%	6	16%	12	8%
Nutrition	10	14%	2	7%	1	3%	13	9%
Interpersonal violence	2	3%	0	0%	0	0%	2	1%
Immunizations	0	0%	1	3%	2	5%	3	2%
Maternal postpartum care	0	0%	2	7%	1	3%	3	2%
Smoking	2	3%	0	0%	1	3%	3	2%
Other	3	4%	1	3%	3	8%	7	5%
<b>Total messages</b>	<b>74</b>	<b>100%</b>	<b>30</b>	<b>100%</b>	<b>38</b>	<b>100%</b>	<b>144</b>	<b>100%</b>

**Supplementary Table 3. Characteristics of registered users who opt-out and drop-out of MomConnect versus those that continue to receive messages**

Factor	Level	Did not opt-out	Opt-out	p-value	Did not drop-out	Dropped out	p-value
<b>N</b>		1,246,452	96,067		1,240,359	102,160	
<b>Province</b>	Eastern Cape	127,927 (10.3%)	8,229 (8.6%)	<0.001	123,102 (10.0%)	13,054 (12.8%)	<0.001
	Free State	59,820 (4.8%)	4,596 (4.8%)		59,462 (4.8%)	4,954 (4.8%)	
	Gauteng	283,340 (22.8%)	16,077 (16.8%)		277,654 (22.5%)	21,763 (21.3%)	
	KZN	268,907 (21.6%)	24,706 (25.8%)		270,931 (21.9%)	22,682 (22.2%)	
	Limpopo	179,995 (14.5%)	16,401 (17.1%)		184,307 (14.9%)	12,089 (11.8%)	
	Mpumalanga	120,915 (9.7%)	12,243 (12.8%)		125,150 (10.1%)	8,008 (7.8%)	
	Northern Cape	17,467 (1.4%)	1,194 (1.2%)		17,370 (1.4%)	1,291 (1.3%)	
	North West	91,958 (7.4%)	7,974 (8.3%)		91,539 (7.4%)	8,393 (8.2%)	
	Western Cape	91,898 (7.4%)	4,242 (4.4%)		86,214 (7.0%)	9,926 (9.7%)	
<b>SA National ID</b>	0	29,908 (2.4%)	1,621 (1.7%)	<0.001	366,141 (29.5%)	41,070 (40.2%)	<0.001
	1	1,216,544 (97.6%)	94,446 (98.3%)		874,218 (70.5%)	61,090 (59.8%)	
<b>Age</b>	<=25	431,910 (34.7%)	44,063 (45.9%)	<0.001	428,498 (34.5%)	47,475 (46.5%)	<0.001
	25-30	322,419 (25.9%)	23,917 (24.9%)		321,581 (25.9%)	24,755 (24.2%)	
	31-35	234,880 (18.8%)	14,079 (14.7%)		233,554 (18.8%)	15,405 (15.1%)	
	35+	257,243 (20.6%)	14,008 (14.6%)		256,726 (20.7%)	14,525 (14.2%)	
<b>Language</b>	English	701,372 (56.3%)	46,796 (48.7%)	<0.001	694,597 (56.0%)	53,571 (52.4%)	<0.001
	Xhosa	106,379 (8.5%)	6,748 (7.0%)		102,455 (8.3%)	10,672 (10.4%)	
	Zulu	246,911 (19.8%)	26,048 (27.1%)		251,762 (20.3%)	21,197 (20.7%)	
	Other	191,725 (15.4%)	16,460 (17.1%)		191,465 (15.4%)	16,720 (16.4%)	
<b>Gestational age at registration</b>	1-12 wks	248,954 (20.1%)	19,065 (19.9%)	<0.001	241,013 (19.5%)	27,006 (26.5%)	<0.001
	13-26 wks	644,459 (51.9%)	46,536 (48.7%)		636,561 (51.5%)	54,434 (53.5%)	
	27+ wks	347,604 (28.0%)	30,040 (31.4%)		357,313 (28.9%)	20,331 (20.0%)	
<b>MNO</b>	MTN	385,373 (30.9%)	31,166 (32.4%)	<0.001	370,704 (29.9%)	45,835 (44.9%)	<0.001
	Telkom	4,095 (0.3%)	272 (0.3%)		3,661 (0.3%)	706 (0.7%)	
	Null	384,141 (30.8%)	14,903 (15.5%)		397,830 (32.1%)	1,214 (1.2%)	
	Cell C	116,491 (9.3%)	7,285 (7.6%)		102,428 (8.3%)	21,348 (20.9%)	
	Vodacom	356,352 (28.6%)	42,441 (44.2%)		365,736 (29.5%)	33,057 (32.4%)	

**Supplementary Table 4. Message delivery status for MomConnect registered users from 14 August 2014 to 5 June 2017**

	Total Messages	
	n	%
Delivered/ enroute	75,233,219	73%
Non-delivery SMS expired	16,959,179	16%
Unknown	9,582,796	9%
Destination phone not available on network	1,192,347	1%
Non-delivery other: Cell phone off, SIM full, MNO deleted	333,282	0%
<b>Total</b>	<b>103,300,823</b>	<b>100%</b>