

Supplemental files for

Supplemental Table 1: weighted proportion of participants of Inadequate counseling regarding danger signs of pregnancy by Region and Residence, mEDHS 2019.

Variables	Categories	Weighted Proportion		P-value
		Adequate counseling regarding danger signs	Inadequate counseling regarding danger signs	
		Frequency (%)	Frequency (%)	
Residence	Urban	580.6 (67.04)	285.5 (32.96)	$X^2 = 24.00$, $DF = 282$, $P\text{-value} = <0.0188$
	Rural	1170 (57.34)	870.9 (42.66)	
Region	Tigray	176.4 (65.8)	91.68 (34.2)	$X^2 = 90.4928$, $DF = 282$, $P\text{-value} = <0.001$
	Afar	16.44 (51.16)	15.7 (48.84)	
	Amhara	465.5 (65.62)	243.9 (34.38)	
	Oromia	582.7 (54.35)	489.4 (45.65)	
	Somali	19.32 (29.57)	46.03 (70.43)	
	Benishangul Gumuz	22.07 (56.32)	17.12 (43.68)	
	SNNPR	339.9 (61.21)	215.4 (38.79)	
	Gambela	9.299 (56.49)	7.163 (43.51)	
	Harari	4.309 (47.73)	4.719 (52.27)	
	Addis Ababa	105.5 (86.1)	17.03 (13.9)	
	Dire daw	9.595 (53.62)	8.301 (46.38)	

Supplemental Table 2 OLS regression diagnostics for inadequate counseling regarding danger signs of pregnancy in Ethiopia, mEDHS 2019.

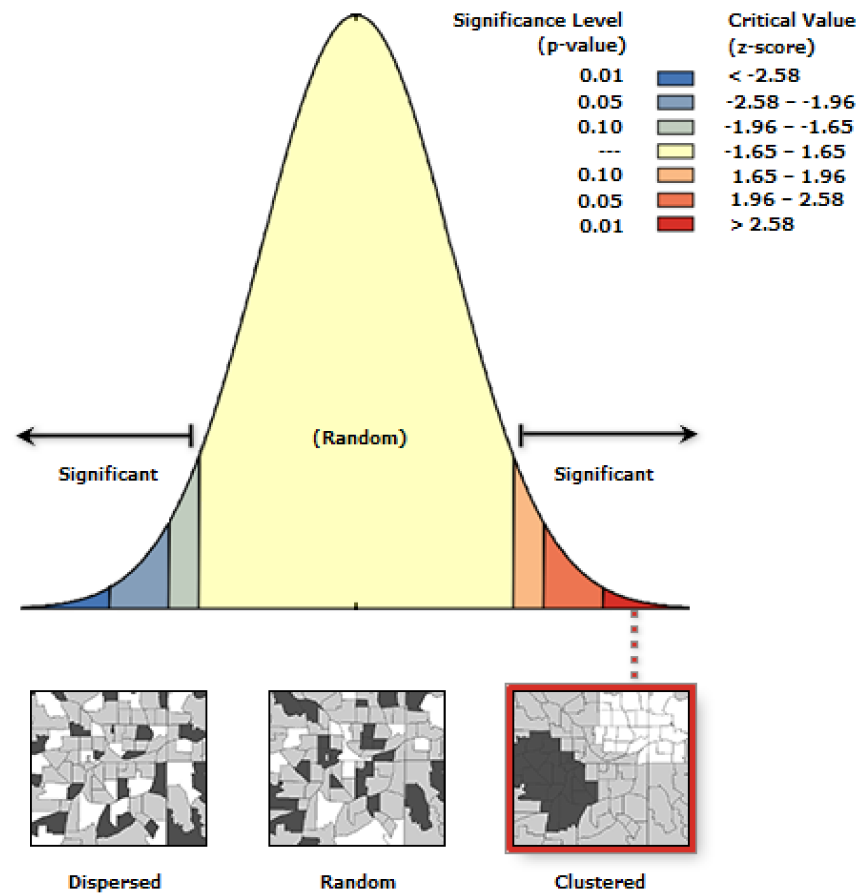
Number of Observations:	283	Akaike's Information Criterion (AICc):	1591.59
Multiple R-Squared:	0.60	Adjusted R-Squared:	0.58
Joint F-Statistic:	45.81	Prob(>F), (9,273) degrees of freedom:	<0.01*
Joint Wald Statistic:	265.20	Prob(>chi-squared), (9) degrees of freedom:	<0.01*
Koenker (BP) Statistic:	92.95	Prob(>chi-squared), (9) degrees of freedom:	< 0.01 *
Jarque-Bera Statistic:	1276.76	Prob(>chi-squared), (2) degrees of freedom:	<0.01*

Supplemental Table 3 summary of OLS regression results for inadequate counseling regarding danger signs of pregnancy in Ethiopia, mEDHS 2019.

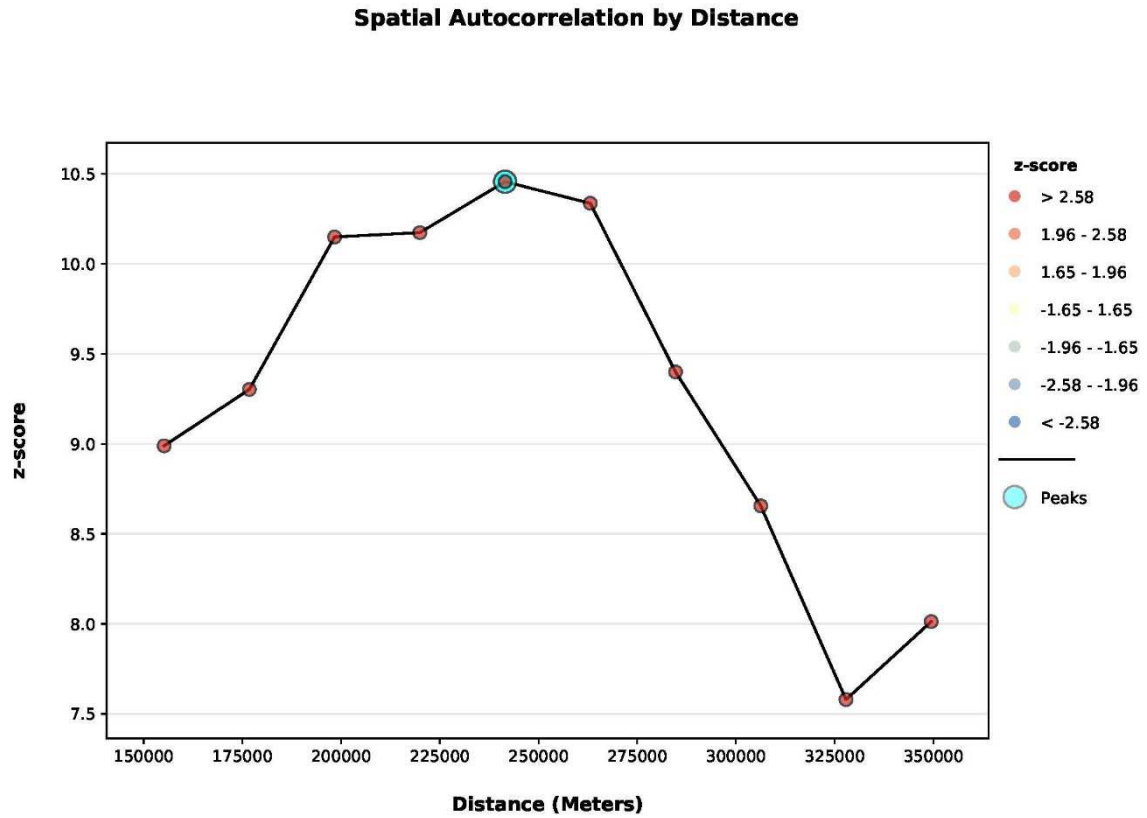
Variable	Coefficient	Standard Error	t-Statistics	Probability	Robust Standard Error	Robust t-statistics	Robust Probability	VIF
Intercept	0.43	0.29	1.46	0.14	0.19	2.21	0.02*	-----
ANC provided by HEW	0.27	0.05	5.15	<0.01*	0.09	2.98	< 0.01 *	1.48
First ANC between 7 th & 8 th month of pregnancy	0.73	0.18	4.02	<0.01*	0.28	2.57	< 0.01 *	1.48
ANC follow-up at government Health center	0.36	0.03	9.68	<0.01*	0.07	4.76	< 0.01 *	2.34
Amhara Region	-0.11	0.03	-2.84	0.004	0.05	-1.89	0.05	1.54
SNNP Region	-0.14	0.04	-3.47	0.006	0.09	-1.50	0.13	1.53
Urban Resident	0.09	0.03	2.37	0.01	0.07	1.17	0.24	2.29
Education level Higher	-0.19	0.21	-0.88	0.37	0.30	-0.63	0.52	1.82
Living with partner	1.86	0.65	2.85	0.00	1.08	1.72	0.08	1.24
Divorced	0.27	0.29	0.92	0.35	0.33	0.81	0.41	1.23

ANC= Ante Natal care; HEW = Health Extension Worker

Supplemental Figure 1: Spatial autocorrelation of inadequate counseling regarding danger signs of pregnancy in regions of Ethiopia, mEDHS 2019.



Supplemental Figure 2: Incremental spatial autocorrelation by distance of inadequate counseling regarding danger signs of pregnancy in regions of Ethiopia, mEDHS 2019.



Supplemental Figure 3: Cold and hotspots of inadequate counseling regarding pregnancy danger signs across regions in Ethiopia, mEDHS 2019, *Shape file source:* (CSA 2021/2013 EC; <https://africaopendata.org/dataset/ethiopia-shapefiles>); *Map output:* Own analysis using ArcGIS Pro Software.

Hotspot analysis of inadequate counseling regarding pregnancy danger signs, mEDHS 2019.

