

Appendix 1: Chi-square test results

Factors associated with TTMS with lower delivery rate												
Variable	Patients' peer supervision establish (n=235)		Train patient to use smart tools to assist TTMS (n=236)		Intensive phase DOT (n=236)		Continuation phase DOT (n=236)		Regular medicine delivery (n=234)		Sputum sample collection (n=236)	
	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)
Gender		0.025*		0.429		0.370		0.867		0.033*		0.760
Female	115(74.7)		88(57.1)		81(52.6)		81(52.6)		97(63.8)		68(44.2)	
Male	69(87.3)		50(62.5)		47(58.8)		43(53.8)		62(77.5)		37(46.3)	
Age		0.23		0.496		0.023*		0.478		0.261		0.950
20-29	73(83.9)		47(53.4)		55(61.8)		51(57.3)		63(70.8)		40(44.9)	
30-39	60(78.9)		46(60.5)		37(49.3)		36(48.0)		46(61.3)		31(41.9)	
40-50	33(68.8)		28(58.3)		19(43.2)		24(50.0)		35(74.5)		22(44.9)	
>50	9(75.0)		9(75.0)		13(81.3)		8(66.7)		10(83.3)		6(50.0)	
Education		0.927		0.607		0.123		0.247		0.815		0.139
Technical secondary school and below	40(76.9)		33(64.7)		27(51.9)		25(48.1)		36(70.6)		25(49.0)	
College	112(79.4)		81(57.0)		84(59.2)		81(57.0)		94(66.7)		67(47.2)	
University and above	32(78.0)		24(57.1)		17(41.5)		18(43.9)		29(70.7)		13(31.0)	
Regions		0.468		0.323		0.367		0.399		0.360		0.820
Relatively developed	54(77.1)		47(66.2)		37(53.6)		38(55.1)		46(67.6)		32(45.1)	
Medium developed	66(75.9)		48(55.2)		53(60.2)		50(56.8)		64(73.6)		41(47.1)	
Less developed	65(83.3)		44(65.4)		39(49.4)		37(46.8)		50(63.3)		33(42.3)	
Primary Health Sector Type		0.044*		0.529		0.574		0.586		0.386		0.607
Township health center	141(82.0)		104(60.1)		97(55.7)		94(54.0)		121(69.9)		79(45.9)	
Community health center	44(69.8)		35(55.6)		32(51.6)		31(50.0)		39(63.9)		27(42.2)	
Professional Title		0.317		0.591		0.010*		0.036*		0.801		0.019*
Non	67(82.7)		46(56.8)		37(45.7)		36(44.4)		52(64.2)		30(37.0)	
Junior	82(78.8)		65(62.5)		70(66.7)		67(63.8)		73(70.2)		58(55.8)	
Intermediate	19(67.9)		15(53.6)		12(42.9)		13(46.4)		17(63.0)		9(32.1)	
Deputy senior	2(66.7)		1(33.3)		2(66.7)		2(66.7)		2(66.7)		1(33.3)	
Times of training received in the past six month		0.299		0.007*		0.147		0.214		0.963		0.022*
0	11(91.7)		10(83.3)		8(66.7)		8(66.7)		8(72.7)		7(58.3)	
1	37(78.7)		28(57.1)		22(44.9)		21(42.9)		34(69.4)		20(41.7)	
2	93(76.2)		68(56.2)		63(51.6)		62(50.8)		82(67.8)		46(37.4)	
3	31(88.6)		27(77.1)		23(67.6)		22(64.7)		22(64.7)		23(67.6)	
>3	13(68.4)		6(31.6)		13(68.4)		12(63.2)		14(73.7)		10(52.6)	
Working satisfaction		0.000*		0.042*		0.016*		0.012*		0.008*		0.027*
Dissatisfied	32(68.1)		27(56.3)		20(43.5)		20(43.5)		30(66.7)		19 (40.4)	
General	26(60.5)		20(45.5)		19(43.2)		17(38.6)		22(50.0)		14 (31.8)	
Satisfied	76(85.4)		51(57.3)		52(57.8)		51(56.7)		64(71.9)		39 (43.8)	

Very satisfied 50(92.6) 39(73.6) 38(70.4) 37(68.5) 44(81.5) 33(61.1)

Note: *p<0.05, TTMS refers to tuberculosis treatment management service, DOT refers to directly observed therapy, MDR-TB refers to multi-drug resistance tuberculosis, Lower delivery rate refers to a rate below 90%, DOT refers to directly observed therapy

Factors associated with TTMS with lower delivery rate (Continue)

Variable	Providing food or transport assistances for poor TB patient (n=230)		Providing DOT for migrant TB patient at their convenient time (n=235)		Providing subsistence allowance or psychological support for migrant patient (n=236)		Providing injection treatment for MDR-TB patient (n=234)		Providing supervision for newly released prison patient (n=236)		Referring TB patient with mental/psychological problems or alcohol/drug addiction (n=235)		Training cured TB patients to provide peer education (n=237)		Establishing platform for TB patients communication (n=237)	
	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)	N(%)	P(X2)
Gender		0.215		0.153		0.313		0.274		0.669		0.431		0.957		0.845
Female	40(51.3)		72(91.1)		36(45.0)		37(46.3)		46(57.5)		59(74.7)		70(87.5)		47(58.8)	
Male	64(42.7)		130(84.4)		80(51.9)		59(38.8)		93(60.4)		122(79.2)		136(87.7)		89(57.4)	
Age		0.174		0.573		0.243		0.561		0.408		0.242		0.016*		0.783
<30	43(49.4)		74(83.1)		50(56.8)		37(42.5)		57(64.0)		71(79.8)		84(94.4)		55(61.8)	
30-39	26(35.1)		65(86.7)		32(42.1)		26(34.2)		40(52.6)		56(73.7)		61(80.3)		42(55.3)	
40-50	25(53.2)		44(91.7)		22(45.8)		21(43.8)		26(54.2)		39(83.0)		44(91.7)		28(58.3)	
>50	6(50.0)		10(83.3)		7(58.3)		6(50.0)		8(66.7)		7(58.3)		9(75.0)		6(50.0)	
Education		0.847		0.526		0.352		0.198		0.073		0.189		0.136		0.194
Technical secondary school and below	22(44.0)		45(88.2)		23(44.2)		23(45.1)		35(68.6)		43(84.3)		47(90.4)		32(61.5)	
College	64(46.4)		123(87.2)		75(53.2)		60(42.9)		84(59.2)		110(77.5)		127(89.4)		85(59.9)	
University and above	17(41.5)		34(81.0)		18(42.9)		12(28.6)		19(45.2)		28(68.3)		33(78.6)		19(45.2)	
Regions		0.277		0.327		0.104		0.613		0.299		0.343		0.048		0.737
Relatively developed	28(40.6)		63(90.0)		36(50.7)		31(44.3)		44(62.9)		56(80.0)		57(80.3)		39(54.9)	
Medium developed	36(42.4)		77(87.5)		49(57.0)		36(42.4)		54(62.1)		70(80.5)		81(93.1)		53(60.9)	
Less developed	40(52.6)		63(81.8)		32(40.5)		29(36.7)		41(51.9)		56(71.8)		70(88.6)		45(57.0)	

Primary Health Sector Type		0.885	0.498	0.613	0.394	0.127		0.528	0.157	0.768
Township health center	76(45.5)		147(85.5)	87(50.6)	73(42.7)	107(61.8)	135(78.5)		115(89.6)	101(58.4)
Community health center	28(44.4)		56(88.9)	30(46.9)	23(36.5)	32(50.8)	47(74.6)		53(82.8)	36(56.3)
Professional Title		0.438	0.327	0.038*	0.004*	0.043*		0.870	0.683	0.789
Non	35(43.8)		67(82.7)	44(62.0)	23(28.4)	47(58.0)	61(76.3)		71(87.7)	43(53.1)
Junior	50(50.0)		92(89.3)	26(47.3)	55(53.4)	68(64.8)	80(76.2)		94(88.7)	64(60.4)
Intermediate	9(33.3)		22(78.6)	16(53.3)	9(33.3)	10(37.0)	22(81.5)		22(81.5)	16(59.3)
Deputy senior	1(33.3)		3(100.0)	31(38.8)	1(33.3)	1(33.3)	2(66.7)		3(100.0)	2(66.7)
Times of training received in the past six month		0.256	0.579	0.497	0.001*	0.022*		0.140	0.788	0.099
0	6(54.5)		9(81.8)	7(58.3)	6(54.5)	8(72.7)	11(100.0)		10(83.3)	6(50.0)
1	21(43.8)		41(83.7)	23(46.9)	15(3.5)	22(44.9)	36(73.5)		42(85.7)	30(61.2)
2	46(39.3)		103(85.1)	55(45.5)	42(35.0)	70(57.4)	90(74.4)		106(86.9)	63(51.6)
3	20(57.1)		33(94.3)	21(60.0)	25(71.4)	28(80.0)	31(88.6)		32(91.4)	27(77.1)
>3	11(57.9)		17(89.5)	11(57.9)	8(42.1)	11(57.9)	14(73.7)		18(94.7)	11(57.9)
Working satisfaction		0.094	0.027*	0.115	0.263	0.452		0.021*	0.114	0.054
Dissatisfied	19(40.4)		38(80.9)	18(37.5)	16(34.0)	24(51.1)	34 (72.3)		40(83.3)	24(50.0)
General	15(35.7)		33(76.7)	23(52.3)	16(36.4)	25(56.8)	28 (63.6)		36(81.8)	21(47.7)
Satisfied	68(43.7)		78(87.6)	42(47.7)	35(40.2)	53(59.6)	70 (79.5)		25(50.0)	52(58.4)
Very satisfied	31(59.6)		52(96.3)	33(61.1)	28(51.9)	36(66.7)	48 (88.9)		52(96.3)	39(72.2)

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