

Supplementary Online Content

Organized Breast and Cervical Cancer Screening: Attendance and Determinants in Rural China

Table S1. Determinants of screening willingness and attendance of breast and cervical cancer screening in rural China 2018-2019-Including adjustment for family support.

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This supplementary material has been provided by the authors to give readers additional information about their work.

Table S1. Determinants of screening willingness and attendance of breast and cervical cancer screening in rural China 2018-2019-Including adjustment for family support.

	Total participants				Participants received screening notification			
	Screening willingness		Attendance		Screening willingness		Attendance	
	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)
Organizer-level factors								
Receiving screening notification								
Yes	2.25(1.83,2.75)***	1.58(1.262,1.979)***	104.21(55.25,196.56)***	97.861(51.337,186.547)***				
No	1.00	1.00	1.00	1.00				
Receiver lever factors -Sociodemographic characteristics								
Age								
65 years and above	0.296(0.208,0.422)***	0.531(0.347,0.812)	0.275(0.195,0.389)***	0.606(0.368,0.995)	0.363(0.222,0.595)***	0.595(0.332,1.067)	0.395(0.258,0.603)***	0.585(0.353,0.968)*
55-64 years	0.549(0.394,0.766)***	0.78(0.539,1.128)	0.869(0.659,1.147)	1.25(0.846,1.848)	0.540(0.351,0.830)**	0.787(0.486,1.273)	0.840(0.593,1.190)	1.168(0.785,1.738)
45-54 years	0.873(0.620,1.229)	0.913(0.635,1.312)	1.141(0.866,1.502)	1.13(0.786,1.625)	0.829(0.535,1.282)	0.918(0.577,1.461)	0.949(0.673,1.338)	1.058(0.731,1.532)
35-44 years	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Education status								
Senior high school/above	1.327(0.916,1.921)	0.813(0.539,1.227)	1.173(0.837,1.644)	0.744(0.474,1.168)	1.388(0.845,2.280)	0.939(0.545,1.616)	0.984(0.653,1.483)	0.699(0.443,1.103)
Junior high school	1.880(1.491,2.370)***	1.379(1.061,1.793)**	1.545(1.266,1.885)***	1.18(0.894,1.56)	1.747(1.293,2.361)***	1.43(1.02,2.005)*	1.454(1.132,1.866)**	1.226(0.923,1.627)
Primary and lower	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Marital status								
Married	1.995(1.503,2.647)***	1.163(0.834,1.621)	2.642(1.908,3.658)***	1.303(0.839,2.025)	2.077(1.375,3.138)***	1.339(0.834,2.149)	2.015(1.359,2.986)***	1.34(0.857,2.094)
Single/Divorced/Widowed/Other	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Housing characteristic								
Three-story house or larger	0.978(0.628,1.525)	0.583(0.378,0.901)*	0.764(0.538,1.085)	0.74(0.46,1.188)	0.731(0.433,1.235)	0.55(0.313,0.968)*	0.848(0.546,1.319)	0.687(0.425,1.111)
Two-story	0.827(0.557,1.228)	0.591(0.399,0.877)**	0.808(0.588,1.110)	0.7(0.458,1.071)	0.782(0.485,1.260)	0.639(0.384,1.063)	0.814(0.547,1.210)	0.693(0.451,1.066)
One-story	0.774(0.539,1.111)	0.817(0.508,1.312)	1.003(0.681,1.478)	0.918(0.553,1.525)	0.898(0.504,1.599)	0.814(0.444,1.493)	0.964(0.596,1.559)	0.925(0.553,1.546)
Tiled-roof house	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Family Support								
Somewhat high/Very high	1.369(1.108,1.692)**	1.132(0.793,1.616)	1.562(1.283,1.902)***	1.088(0.748,1.581)	1.664(1.097,2.525)*	1.136(0.716,1.802)	1.476(1.047,2.080)*	1.11(0.757,1.626)
Neutral	1.792(1.299,2.472)***	1.073(0.847,1.359)	1.821(1.383,2.398)***	1.036(0.794,1.351)	1.250(0.945,1.655)	1.016(0.744,1.386)	1.224(0.959,1.562)	1.012(0.773,1.324)
Very low/Somewhat low	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Time/day online with a mobile phone								
60 mins and above	1.687(1.355,2.099)***	1.206(0.936,1.554)	1.249(1.032,1.510)*	0.993(0.754,1.307)	1.511(1.134,2.014)**	1.054(0.757,1.468)	1.209(0.952,1.534)	0.961(0.727,1.271)
0-59 mins	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Receiver lever factors-Disease-related characteristics								
Seeing doctor for gynecological problems								
Yes	2.693(2.105,3.446)***	1.738(1.317,2.295)***	2.439(2.002,2.972)***	2.153(1.619,2.862)***	3.018(2.163,4.209)***	2.031(1.413,2.921)***	2.675(2.062,3.471)***	2.049(1.536,2.735)***
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Gynecological physical examination on one's own initiative								
Yes	2.620(2.088,3.288)***	1.595(1.228,2.071)***	3.035(2.506,3.676)***	2.135(1.638,2.784)***	3.00(2.226,4.045)***	2.074(1.494,2.88)***	2.716(2.134,3.458)***	2.091(1.599,2.736)***
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Experiencing symptoms/discomfort (irregular vaginal bleeding, nipple discharge, breast lump, abnormal leukorrhea or similar)								
Yes	1.554(1.276,1.893)***	1.458(1.178,1.804)***	0.939(0.783,1.126)	0.755(0.594,0.961)*	1.418(1.091,1.842)**	1.331(1.007,1.76)*	0.880(0.701,1.103)	0.802(0.629,1.024)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heard of two-cancer								
Yes	2.344(1.901,2.889)***	1.583(1.251,2.003)***	2.661(2.136,3.313)***	1.314(0.975,1.771)	2.166(1.605,2.923)***	1.683(1.214,2.333)**	1.470(1.114,1.939)**	1.256(0.926,1.703)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Relatives or friends suffered from two-cancer in the past 5 years								
Yes	1.355(1.010,1.817)*	1.001(0.728,1.377)	1.071(0.829,1.382)	0.834(0.597,1.166)	1.237(0.845,1.812)	0.924(0.613,1.392)	0.963(0.703,1.318)	0.817(0.582,1.147)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table S2. Determinants of the willingness to participate again and to recommend screening to others of organized breast and cervical cancer screening in rural China 2018-2019-Including adjustment for family support.

	Willingness to participate again		Willingness to recommend screening to others	
	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)
Organizer lever factors				
Travel time to the hospital				
≥30 min	0.977(0.554,1.722)	0.833(0.41,1.691)	1.071(0.668,1.718)	1.113(0.622,1.991)
15–29 min	1.746(0.756,4.033)	1.475(0.563,3.863)	1.829(0.927,3.608)	1.649(0.767,3.547)
<15 min	1.00	1.00	1.00	1.00
Received report within 2 weeks of screening				
Yes	0.939(0.552,1.597)	0.79(0.393,1.587)	0.967(0.626,1.495)	0.898(0.521,1.547)
No	1.00	1.00	1.00	1.00
Received report as of now				
Yes	1.075(0.544,2.123)	0.933(0.383,2.273)	0.821(0.450,1.499)	0.575(0.269,1.228)
No	1.00	1.00	1.00	1.00
Continuity of screening				
Yes	1.210(0.701,2.090)	0.832(0.416,1.663)	1.767(1.099,2.843)*	1.412(0.799,2.497)
No	1.00	1.00	1.00	1.00
Overall perceived smoothness				
Yes	2.570(1.501,4.401)***	1.571(0.801,3.08)	1.690(1.057,2.702)*	1.38(0.78,2.44)
No	1.00	1.00	1.00	1.00
Overall perceived usefulness				
Yes	7.513(4.374,12.905)***	7.936(4.138,15.217)***	3.513(2.213,5.578)***	3.751(2.132,6.599)***
No	1.00	1.00	1.00	1.00
Providers lever factors				
Waiting time in the hospital				
≥30 min	1.044(0.556,1.962)	1.106(0.519,2.36)	1.317(0.798,2.173)	1.266(0.702,2.285)
15–29 min	0.940(0.345,2.560)	1.001(0.317,3.156)	1.014(0.457,2.250)	0.817(0.336,1.987)
<15 min	1.00	1.00	1.00	1.00
Doctor's explanations unclear				
Very low/Somewhat low	0.848(0.445,1.618)	1.008(0.473,2.149)	0.737(0.430,1.262)	0.706(0.377,1.321)
Neutral	0.376(0.146,0.967)*	0.721(0.225,2.309)	0.432(0.186,1.004)	0.641(0.237,1.733)
Somewhat high/Very high	1.00	1.00	1.00	1.00
Ward cleanliness				
Somewhat high/Very high	3.750(0.867,16.220)	5.264(0.863,32.1)	1.238(0.251,6.117)	0.908(0.147,5.596)
Neutral	2.969(0.803,10.978)	3.385(0.62,18.481)	1089(0.239,4.956)	0.888(0.155,5.106)
Very low/Somewhat low	1.00	1.00	1.00	1.00
Ward quietness				
Somewhat high/Very high	2.800(0.919,8.527)	2.279(0.61,8.51)	2.187(0.810,5.908)	2.585(0.827,8.084)
Neutral	1.408(0.683,2.903)	1.248(0.488,3.189)	0.883(0.449,1.736)	0.786(0.349,1.767)
Very low/Somewhat low	1.00	1.00	1.00	1.00
Presence of others during examination				
No	1.046(0.621,1.761)	1.119(0.615,2.036)	0.999(0.652,1.533)	1.199(0.736,1.954)
Yes	1.00	1.00	1.00	1.00
Received health education				
Yes	1.342(0.799,2.254)	0.933(0.479,1.818)	1.982(1.292,3.041)**	1.441(0.854,2.433)
No	1.00	1.00	1.00	1.00
Receiver lever factors -Sociodemographic characteristics				
Age				
65 years and above	0.624(0.207,1.88)	1.058(0.247,4.532)	0.395(0.152,1.028)	0.76(0.237,2.435)
55–64 years	0.588(0.258,1.343)	0.584(0.207,1.648)	0.321(0.152,0.677)**	0.384(0.161,0.916)*
45–54 years	0.745(0.325,1.704)	0.895(0.342,2.344)	0.615(0.285,1.328)	0.695(0.3,1.611)
35–44 years	1.00	1.00	1.00	1.00
Education status				
Senior high school and above	2.223(0.668,7.399)	2.484(0.612,10.09)	1.941(0.748,5.039)	1.26(0.401,3.96)
Junior high school	1.858(1.026,3.364)*	1.594(0.773,3.287)	1.412(0.887,2.246)	0.893(0.509,1.569)
Primary and lower	1.00	1.00	1.00	1.00
Marital status				
Married	1.230(0.470,3.219)	0.952(0.296,3.056)	1.987(0.981,4.025)	1.229(0.522,2.893)
Single/Divorced/Widowed/Other	1.00	1.00	1.00	1.00
Housing characteristic				
Three-story house or larger	0.458(0.149,1.41)	0.357(0.099,1.29)	1.212(0.563,2.611)	1.322(0.538,3.246)
Two-story	0.554(0.191,1.604)	0.507(0.151,1.705)	1.291(0.652,2.555)	1.369(0.612,3.061)
One-story	0.901(0.245,3.307)	0.858(0.204,3.604)	1.103(0.485,2.511)	0.978(0.386,2.48)
Tiled-roof house	1.00	1.00	1.00	1.00
Time/day online with a mobile phone				
60 mins and above	1.173(0.679,2.026)	1.025(0.512,2.05)	1.525(0.957,2.430)	1.051(0.593,1.864)
0–59 mins	1.00	1.00	1.00	1.00
Family Supports				
Somewhat high/Very high	1.272(0.601,2.695)	0.956(0.38,2.405)	3.060(1.464,6.395)**	2.541(1.087,5.939)*
Neutral	1.348(0.766,2.372)	1.429(0.722,2.83)	2.041(1.285,3.241)**	1.864(1.092,3.182)*
Very low/Somewhat low	1.00	1.00	1.00	1.00
Receiver lever factors-Disease-related characteristics				
Seeing a doctor for gynecological problems				

Yes	1.543(0.888,2.678)	1.881(0.949,3.728)	1.225(0.790,1.901)	0.963(0.559,1.657)
No	1.00	1.00	1.00	1.00
Gynecological physical examination on one's own initiative				
Yes	1.246(0.743,2.091)	0.959(0.511,1.8)	1.394(0.909,2.137)	1.126(0.669,1.896)
No	1.00	1.00	1.00	1.00
Experiencing symptoms/discomfort (irregular vaginal bleeding, nipple discharge, breast lump, abnormal leukorrhea or similar)				
Yes	0.918(0.546,1.542)	0.884(0.481,1.626)	1.237(0.809,1.893)	1.132(0.694,1.846)
No	1.00	1.00	1.00	1.00
Heard of two-cancer				
Yes	2.567(1.464,4.50)***	1.665(0.845,3.279)	3.513(2.213,5.578)***	2.219(1.29,3.816)**
No	1.00	1.00	1.00	1.00
Relatives or friends suffered from two-cancer in the past 5 years				
Yes	2.721(0.968,7.648)	2.13(0.689,6.582)	2.943(1.256,6.899)*	2.26(0.906,5.638)
No	1.00	1.00	1.00	1.00
History of previous screening				
Yes	2.259(1.340,3.809)**	1.92(1.005,3.666)*	1.863(1.215,2.855)**	1.524(0.91,2.553)
No	1.00	1.00	1.00	1.00

Table S3. The association of the resource of notification about screening with the willingness to participate again and to recommend screening to others of organized breast and cervical cancer screening in rural China 2018-2019- Including adjustment for family support

Resource of notification about screening	n(%)	Willingness to participate again		Willingness recommend screening to others	
		Unadjusted	Adjusted	Unadjusted	Adjusted
		OR (95%CI)	OR(95%CI)	OR (95%CI)	OR(95%CI)
Other community leaders	300(40.00)	2.37(1.09,5.13)*	3.10(1.19,8.08)*	2.82(1.44,5.55)**	4.25(1.85,9.76)***
Community women's leaders	347(46.27)	2.64(1.23,5.70)*	2.78(1.09,7.05)*	1.95(1.03,3.70)*	2.25(1.04,4.90)*
Friends or relatives	36(4.80)	1.22(0.39,3.83)	1.47(0.35,6.12)	2.51(0.77,8.18)	3.93(0.99,15.54)*
GPs	67(8.93)	1.00	1.00	1.00	1.00

Note: control variables: Control variables: travel time to the hospital, received report within 2 weeks of screening, received report as of now, continuity of screening, overall perceived smoothness, overall perceived usefulness, waiting time in the hospital, doctor's explanations unclear, ward cleanliness, ward quietness, presence of others during examination, received health education, age, education status, marital status, housing characteristic, time/day online with a mobile phone, family supports, seeing a doctor for gynecological problems, gynecological physical examination on one's own initiative, experiencing symptoms/discomfort, heard of two-cancer, relatives or friends suffered from two-cancer in the past 5 years, history of previous screening; * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Table S4. Determinants of screening willingness and attendance of breast and cervical cancer screening in rural China 2018-2019-Adjustment self-reported economic status instead of housing characteristics.

	Total participants				Participants received screening notification			
	Screening willingness		Attendance		Screening willingness		Attendance	
	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)
Organizer-level factors								
Receiving screening notification								
Yes	2.246(1.834,2.749)***	1.646(1.315,2.059)***	104.21(55.253,196.56)***	99.489(52.229,189.512)***				
No	1.00	1.00	1.00	1.00				
Receiver lever factors -Sociodemographic characteristics								
Age								
65 years and above	0.296(0.208,0.422)***	0.569(0.373,0.87)*	0.275(0.195,0.389)***	0.637(0.389,1.045)	0.363(0.222,0.595)***	0.675(0.376,1.211)	0.395(0.258,0.603)***	0.626(0.379,1.034)
55-64 years	0.549(0.394,0.766)***	0.786(0.544,1.137)	0.869(0.659,1.147)	1.258(0.852,1.856)	0.540(0.351,0.830)**	0.822(0.508,1.33)	0.840(0.593,1.190)	1.183(0.796,1.759)
45-54 years	0.873(0.620,1.229)	0.914(0.635,1.316)	1.141(0.866,1.502)	1.137(0.791,1.636)	0.829(0.535,1.282)	0.959(0.602,1.527)	0.949(0.673,1.338)	1.073(0.741,1.553)
35-44 years	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Education status								
Senior high school and above	1.327(0.916,1.921)	0.845(0.559,1.278)	1.173(0.837,1.644)	0.748(0.476,1.174)	1.388(0.845,2.280)	0.976(0.566,1.68)	0.984(0.653,1.483)	0.709(0.45,1.118)
Junior high school	1.880(1.491,2.370)***	1.426(1.097,1.855)**	1.545(1.266,1.885)***	1.162(0.884,1.529)	1.747(1.293,2.361)***	1.45(1.038,2.025)*	1.454(1.132,1.866)**	1.205(0.912,1.592)
Primary and lower	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Marital status								
Married	1.995(1.503,2.647)***	1.222(0.882,1.692)	2.642(1.908,3.658)***	1.351(0.879,2.079)	2.077(1.375,3.138)***	1.455(0.916,2.309)	2.015(1.359,2.986)***	1.383(0.894,2.139)
Single/Divorced/Widowed/Other	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Self-reported economic status								
Somewhat Good/Good	0.641(0.418,0.983)*	0.768(0.484,1.219)	0.851(0.574,1.263)	0.826(0.493,1.384)	0.617(0.348,1.093)	0.641(0.348,1.18)	0.834(0.514,1.354)	0.782(0.464,1.316)
Neutral	0.628(0.469,0.840)**	0.583(0.426,0.799)***	0.984(0.764,1.268)	0.9(0.644,1.257)	0.630(0.427,0.929)*	0.584(0.385,0.886)*	0.982(0.718,1.344)	0.883(0.629,1.24)
Somewhat Bad	0.836(0.603,1.158)	0.847(0.598,1.199)	1.007(0.759,1.335)	0.973(0.672,1.408)	0.831(0.536,1.289)	0.788(0.496,1.252)	1.116(0.784,1.589)	1.001(0.687,1.457)
Bad	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Time/day online with a mobile phone								
60 mins and above	1.687(1.355,2.099)***	1.226(0.951,1.579)	1.249(1.032,1.510)*	1.003(0.764,1.318)	1.511(1.134,2.014)**	1.081(0.777,1.503)	1.209(0.952,1.534)	0.973(0.738,1.284)
0-59 mins	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Receiver lever factors-Disease-related characteristics								
Seeing doctor for gynecological problems								
Yes	2.693(2.105,3.446)***	1.763(1.336,2.328)***	2.439(2.002,2.972)***	2.155(1.622,2.863)***	3.018(2.163,4.209)***	2.034(1.416,2.921)***	2.675(2.062,3.471)***	2.046(1.535,2.729)***
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Gynecological physical examination on one's own initiative								
Yes	2.620(2.088,3.288)***	1.609(1.24,2.087)***	3.035(2.506,3.676)***	2.137(1.642,2.783)***	3.00(2.226,4.045)***	2.096(1.511,2.906)***	2.716(2.134,3.458)***	2.098(1.606,2.741)***
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Experiencing symptoms/discomfort (irregular vaginal bleeding, nipple discharge, breast lump, abnormal leukorrhea or similar)								
Yes	1.554(1.276,1.893)***	1.403(1.133,1.739)**	0.939(0.783,1.126)	0.745(0.584,0.95)**	1.418(1.091,1.842)**	1.257(0.948,1.667)	0.880(0.701,1.103)	0.788(0.616,1.009)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Heard of two-cancer								
Yes	2.344(1.901,2.889)***	1.566(1.237,1.981)***	2.661(2.136,3.313)***	1.316(0.977,1.772)	2.166(1.605,2.923)***	1.68(1.212,2.328)**	1.470(1.114,1.939)**	1.258(0.928,1.705)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Relatives or friends suffered from two-cancer in the past 5 years								
Yes	1.355(1.010,1.817)*	0.973(0.707,1.338)	1.071(0.829,1.382)	0.815(0.584,1.138)	1.237(0.845,1.812)	0.899(0.596,1.354)	0.963(0.703,1.318)	0.797(0.568,1.118)
No	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00

Table S5. Determinants of the willingness to participate again and to recommend screening to others of organized breast and cervical cancer screening in rural China 2018-2019- Adjustment self-reported economic status instead of housing characteristics.

	Willingness to participate again		Willingness to recommend screening to others	
	Unadjusted OR(95%CI)	Adjusted OR(95%CI)	Unadjusted OR (95%CI)	Adjusted OR(95%CI)
Organizer lever factors				
Travel time to the hospital				
≥30 min	0.977(0.554,1.722)	0.895(0.443,1.806)	1.071(0.668,1.718)	0.985(0.555,1.749)
15–29 min	1.746(0.756,4.033)	1.592(0.612,4.143)	1.829(0.927,3.608)	1.622(0.763,3.448)
<15 min	1.00	1.00	1.00	1.00
Received report within 2 weeks of screening				
Yes	0.939(0.552,1.597)	0.788(0.396,1.566)	0.967(0.626,1.495)	0.923(0.538,1.585)
No	1.00	1.00	1.00	1.00
Received report as of now				
Yes	1.075(0.544,2.123)	0.885(0.364,2.153)	0.821(0.450,1.499)	0.6(0.282,1.276)
No	1.00	1.00	1.00	1.00
Continuity of screening				
Yes	1.210(0.701,2.090)	0.915(0.463,1.805)	1.767(1.099,2.843)*	1.373(0.784,2.407)
No	1.00	1.00	1.00	1.00
Overall perceived smoothness				
Yes	2.570(1.501,4.401)***	1.573(0.802,3.083)	1.690(1.057,2.702)*	1.378(0.78,2.436)
No	1.00	1.00	1.00	1.00
Overall perceived usefulness				
Yes	7.513(4.374,12.905)***	8.166(4.292,15.537)***	3.513(2.213,5.578)***	3.628(2.088,6.305)***
No	1.00	1.00	1.00	1.00
Providers lever factors				
Waiting time in the hospital				
≥30 min	1.044(0.556,1.962)	1.12(0.526,2.386)	1.317(0.798,2.173)	1.221(0.681,2.191)
15–29 min	0.940(0.345,2.560)	0.969(0.309,3.043)	1.014(0.457,2.250)	0.87(0.359,2.109)
<15 min	1.00	1.00	1.00	1.00
Doctor's explanations unclear				
Very low/Somewhat low	0.848(0.445,1.618)	0.995(0.473,2.093)	0.737(0.430,1.262)	0.645(0.349,1.193)
Neutral	0.376(0.146,0.967)*	0.776(0.245,2.462)	0.432(0.186,1.004)	0.624(0.233,1.667)
Somewhat high/Very high	1.00	1.00	1.00	1.00
Ward cleanliness				
Somewhat high/Very high	3.750(0.867,16.220)	5.01(0.826,30.381)	1.238(0.251,6.117)	0.966(0.154,6.07)
Neutral	2.969(0.803,10.978)	3.44(0.63,18.795)	1089(0.239,4.956)	0.979(0.166,5.782)
Very low/Somewhat low	1.00	1.00	1.00	1.00
Ward quietness				
Somewhat high/Very high	2.800(0.919,8.527)	2.653(0.716,9.831)	2.187(0.810,5.908)	2.281(0.735,7.081)
Neutral	1.408(0.683,2.903)	1.202(0.472,3.061)	0.883(0.449,1.736)	0.822(0.363,1.864)
Very low/Somewhat low	1.00	1.00	1.00	1.00
Presence of others during examination				
No	1.046(0.621,1.761)	1.16(0.642,2.097)	0.999(0.652,1.533)	1.153(0.715,1.859)
Yes	1.00	1.00	1.00	1.00
Received health education				
Yes	1.342(0.799,2.254)	0.99(0.51,1.923)	1.982(1.292,3.041)**	1.422(0.843,2.399)
No	1.00	1.00	1.00	1.00
Receiver lever factors -Sociodemographic characteristics				
Age				
65 years and above	0.624(0.207,1.88)	1.139(0.274,4.73)	0.395(0.152,1.028)	0.62(0.193,1.991)
55-64 years	0.588(0.258,1.343)	0.688(0.249,1.903)	0.321(0.152,0.677)**	0.374(0.157,0.895)*
45-54 years	0.745(0.325,1.704)	0.992(0.383,2.572)	0.615(0.285,1.328)	0.708(0.305,1.643)
35-44 years	1.00	1.00	1.00	1.00
Education status				
Senior high school and above	2.223(0.668,7.399)	2.433(0.602,9.832)	1.941(0.748,5.039)	1.292(0.416,4.006)
Junior high school	1.858(1.026,3.364)*	1.46(0.712,2.992)	1.412(0.887,2.246)	1.018(0.583,1.775)
Primary and lower	1.00	1.00	1.00	1.00
Marital status				
Married	1.230(0.470,3.219)	1.102(0.352,3.45)	1.987(0.981,4.025)	1.738(0.746,4.051)
Single/Divorced/Widowed/Other	1.00	1.00	1.00	1.00
Self-reported economic status				
Somewhat Good/Good	0.997(0.333,2.980)	1.029(0.291,3.644)	1.630(0.515,5.159)	1.827(0.52,6.426)
Neutral	1.054(0.527,2.108)	0.907(0.399,2.062)	0.743(0.404,1.365)	0.682(0.34,1.369)
Somewhat Bad	1.392(0.614,3.156)	1.234(0.481,3.163)	0.953(0.477,1.904)	0.905(0.416,1.968)
Bad	1.00	1.00	1.00	1.00
Time/day online with a mobile phone				
60 mins and above	1.173(0.679,2.026)	0.983(0.498,1.941)	1.525(0.957,2.430)	1.165(0.664,2.045)
0-59 mins	1.00	1.00	1.00	1.00
Receiver lever factors- Disease-related characteristics				
Seeing a doctor for gynecological problems				
Yes	1.543(0.888,2.678)	1.924(0.974,3.803)	1.225(0.790,1.901)	0.952(0.556,1.633)
No	1.00	1.00	1.00	1.00
Gynecological physical examination on one's own initiative				
Yes	1.246(0.743,2.091)	0.924(0.49,1.742)	1.394(0.909,2.137)	1.144(0.682,1.919)
No	1.00	1.00	1.00	1.00

Experiencing symptoms/discomfort (irregular vaginal bleeding, nipple discharge, breast lump, abnormal leukorrhea or similar)				
Yes	0.918(0.546,1,542)	0.892(0.483,1.648)	1.237(0.809,1.893)	1.07(0.654,1.751)
No	1.00	1.00	1.00	1.00
Heard of two-cancer				
Yes	2.567(1.464,4.50)***	1.638(0.831,3.23)	3.513(2.213,5.578)***	2.371(1.385,4.059)**
No	1.00	1.00	1.00	1.00
Relatives or friends suffered from two-cancer in the past 5 years				
Yes	2.721(0.968,7.648)	2.115(0.688,6.5)	2.943(1.256,6.899)*	2.319(0.935,5.75)
No	1.00	1.00	1.00	1.00
History of previous screening				
Yes	2.259(1.340,3.809)**	1.857(0.977,3.527)	1.863(1.215,2.855)**	1.535(0.918,2.568)
No	1.00	1.00	1.00	1.00

Table S6. The association of the resource of notification about screening with the willingness to participate again and to recommend screening to others of organized breast and cervical cancer screening in rural China 2018-2019-Adjustment self-reported economic status instead of housing characteristics.

Resource of notification about screening	n(%)	Willingness to participate again		Willingness recommend screening to others	
		Unadjusted	Adjusted	Unadjusted	Adjusted
		OR (95%CI)	OR(95%CI)	OR (95%CI)	OR(95%CI)
Other community leaders	300(40.00)	2.37(1.09,5.13)*	3.19(1.23,8.29)*	2.82(1.44,5.55)**	3.66(1.64,8.17)*
Community women's leaders	347(46.27)	2.64(1.23,5.70)*	3.04(1.19,7.76)*	1.95(1.03,3.70)*	2.00(0.94,4.24)
Friends or relatives	36(4.80)	1.22(0.39,3.83)	1.47(0.37,5.91)	2.51(0.77,8.18)	2.93(0.75,11.43)
GPs	67(8.93)	1.00	1.00	1.00	1.00

Note: control variables: travel time to the hospital, received report within 2 weeks of screening, received report as of now, continuity of screening, overall perceived smoothness, overall perceived usefulness, waiting time in the hospital, doctor's explanations unclear, ward cleanliness, ward quietness, presence of others during examination, received health education, age, education status, marital status, self-reported economic status, time/day online with a mobile phone, seeing a doctor for gynecological problems, gynecological physical examination on one's own initiative, experiencing symptoms/discomfort, heard of two-cancer, relatives or friends suffered from two-cancer in the past 5 years, history of previous screening; * $p<0.05$, ** $p<0.01$, *** $p<0.001$