## **Supplementary Materials**

## Univariate analysis stratified by urban and rural

**Table S1**. Univariate analysis on the determinants of completion of the target number of breast, cervical, and colorectal cancer screening in urban district

		Breast cancer	Cervical cancer	Colorectal cancer
Characteristics	Category	(n=81)	(n=82)	(n=95)
		OR(95%CI)	OR(95%CI)	OR(95%CI)
GDP of district (¥100 million)	≤800+	1	1	1
	>800	0.67(0.25, 1.76)	0.53(0.20, 1.41)	0.18(0.02, 1.46)*
Number of screening tests	<2†	1	1	_‡
	≥2	1.27(0.46, 3.54)	0.96 (0.36, 2.52)	_
Frequency of staff training	Once a year <sup>†</sup>	1	1	1
	Less than once a year or	1.15(0.18, 7.34)	1.33 (0.21, 8.55)	0.23(0.02, 2.81)
	never			
Number of staff dedicated to	<3 <sup>†</sup>	1	1	1
screening§	≥3	1.74(0.63, 4.79)	2.08(0.70, 6.14)*	6.98(1.64, 29.79)**
Frequency of introduction to	≥4 times a year†	1	1	1
residents of screening programs	<4 times a year	1.52(0.56, 4.11)	1.13 (0.41, 3.10)	1.19(0.29, 4.97)
Telephone invitation of target	Yes <sup>†</sup>	1	1	_‡
population	No	0.82(0.14, 4.81)	0.36(0.04, 3.25)	_

<sup>\*</sup> P<0.2; \*\*P<0.01. † Reference. ‡ Not included in the regression analysis. § Cutoff value of the number of staff dedicated to screening colorectal cancer screening is: <10 staff members (reference),  $\ge 10$  staff members.

**Table S2**. Univariate analysis on the determinants of completion of the target number of breast, cervical, and colorectal cancer screening in rural district

Category	Breast cancer (n=81)	Cervical cancer (n=82)	Colorectal cancer (n=95)
	OR(95%CI)	OR(95%CI)	OR(95%CI)
≤800+	1	1	1
>800	0.53 (0.20, 1.43)	0.90(0.39, 2.08)	1.17(0.21, 6.58)
<2+	1	1	_‡
≥2	1.34(0.48, 3.72)	1.89 (0.79, 4.49)*	_
Once a year <sup>†</sup>	1	1	1
Less than once a year or	_	_	0.15(0.01, 1.54)*
<3 <sup>†</sup>	1	1	1
≥3	1.56 (0.48, 5.07)	2.11(0.77, 5.73)*	0.94(0.17, 5.31)
≥4 times a year <sup>†</sup>	1	1	1
<4 times a year	0.54(0.18, 1.60)	0.90 (0.40, 2.02)	1.86(0.30, 11.46)
Yes <sup>†</sup>	1	1	_‡
No	2.70(0.32, 22.58)	2.09(0.44, 9.98)	_
	≤800 <sup>†</sup> >800 <2 <sup>†</sup> ≥2 Once a year <sup>†</sup> Less than once a year or never <3 <sup>†</sup> ≥3 ≥4 times a year <sup>†</sup> <4 times a year Yes <sup>†</sup>	Category     (n=81)       OR(95%CI)       ≤800 $^{\dagger}$ 1       >800     0.53 (0.20, 1.43)       <2 $^{\dagger}$ 1       ≥2     1.34(0.48, 3.72)       Once a year $^{\dagger}$ 1       Less than once a year or never     —       <3 $^{\dagger}$ 1       ≥3     1.56 (0.48, 5.07)       ≥4 times a year     0.54(0.18, 1.60)       Yes $^{\dagger}$ 1	Category       (n=81)       (n=82)         OR(95%CI)       OR(95%CI)         ≤800 $^{\dagger}$ 1       1         >800       0.53 (0.20, 1.43)       0.90(0.39, 2.08)         <2 $^{\dagger}$ 1       1         ≥2       1.34(0.48, 3.72)       1.89 (0.79, 4.49) $^{\ast}$ Once a year $^{\dagger}$ 1       1         Less than once a year or never       —       —         <3 $^{\dagger}$ 1       1         ≥3       1.56 (0.48, 5.07)       2.11(0.77, 5.73) $^{\ast}$ ≥4 times a year       0.54(0.18, 1.60)       0.90 (0.40, 2.02)         Yes $^{\dagger}$ 1       1

<sup>\*</sup> P<0.2. † Reference. ‡ Not included in the regression analysis. § Cutoff value of the number of staff dedicated to screening colorectal cancer screening is: <10 staff members (reference),  $\geq$ 10 staff members.