

**Supplementary Table S1.** The no and notification rate (per 100,000 population) of PTB case with characteristics from 2014 to 2019 in Baoshan district, Shanghai, *n* (%)

Characteristics	2014	2015	2016	2017	2018	2019
Gender						
Male	414 (38.70)	362 (33.71)	389 (36.03)	396 (36.75)	337 (31.47)	351 (32.50)
Female	181 (19.46)	187 (20.01)	187 (20.32)	165 (17.82)	194 (20.21)	180 (18.70)
Age (year)						
0–	25 (9.69)	20 (7.72)	19 (7.42)	19 (7.23)	12 (4.34)	15 (6.08)
20–	139 (32.09)	137 (31.50)	140 (32.74)	146 (34.77)	127 (30.56)	108 (39.41)
30–	93 (23.31)	92 (22.96)	95 (24.10)	91 (23.51)	96 (25.08)	108 (24.15)
40–	70 (22.87)	70 (22.78)	68 (22.48)	67 (22.56)	65 (22.15)	58 (17.74)
50–	113 (35.17)	86 (26.65)	107 (33.73)	93 (29.85)	75 (24.32)	66 (18.86)
> 60	155 (54.94)	144 (50.82)	147 (48.59)	145 (44.58)	156 (44.02)	176 (44.27)
Residence						
Native	368 (39.31)	329 (34.70)	345 (35.77)	356 (36.46)	346 (34.83)	366 (30.60)
Migrant	227 (19.96)	220 (19.89)	231 (20.95)	205 (19.03)	185 (17.24)	165 (19.77)
Total	595 (28.70)	549 (26.73)	576 (27.86)	561 (27.32)	531 (25.69)	531 (26.21)

**Note.** PTB, Pulmonary tuberculosis.

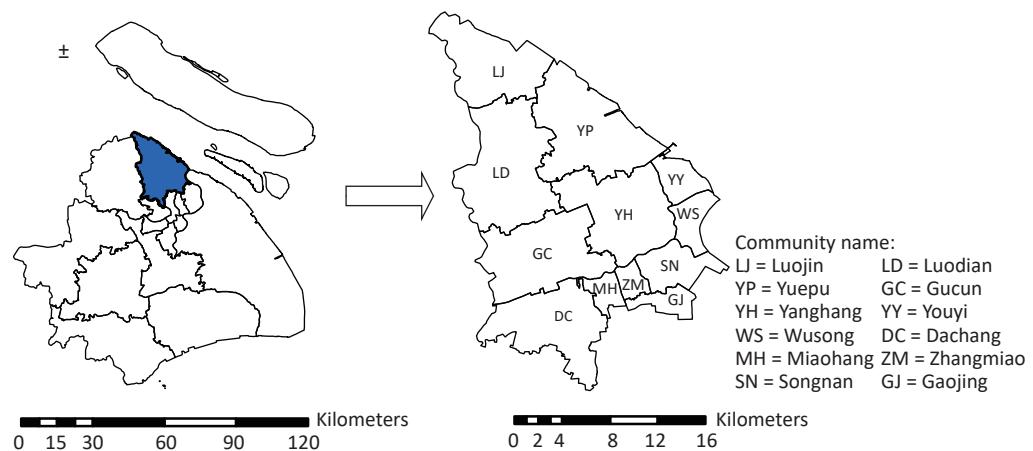
**Supplementary Table S2.** Global Moran's *I* analysis of PTB in Baoshan district, Shanghai 2014–2019

Years	Moran's <i>I</i>	Z-score	P value	Pattern
2014	-0.284	-1.091	0.27	dispersed
2015	0.041	0.756	0.44	clustered
2016	0.039	0.730	0.46	clustered
2017	-0.090	0.0005	0.99	dispersed
2018	-0.121	-0.263	0.79	dispersed
2019	-0.122	-0.188	0.85	dispersed

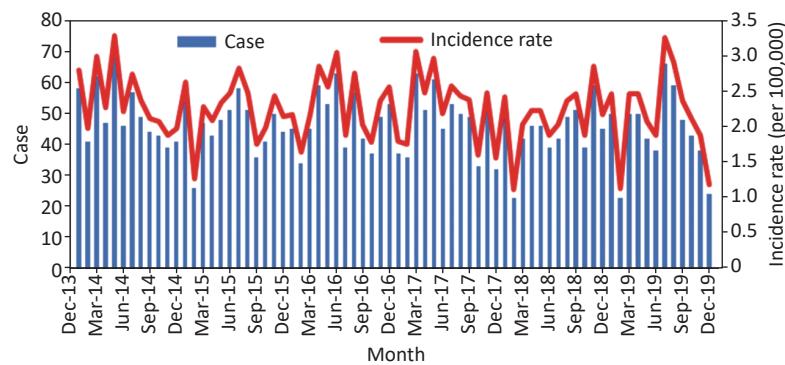
**Supplementary Table S3.** The trend between risk rank of PTB and annually average values of GDP per capita (Yuan), native-total population ratio (%), lowest society guarantees rate (%) respectively over 6 years span from 2014 to 2019 through the Spearman Rank Correlation test in Baoshan district, Shanghai

Communities	GDP per capita (Yuan)	NTR (%)	LSGR (%)	Risk rank
Yanghang	12,531.4	48.7	1.9	1
wusong	3,262.0	73.4	10.4	3
Dachang	5,623.7	61.5	2.6	2
Songnan	4,982.7	74.6	8.6	3
Zhangmiao	1,270.6	86.0	15.7	3
Miaohang	8,456.8	64.5	2.6	1
Luodian	11,362.2	51.3	3.1	1
Gaojing	6,380.1	76.5	5.6	3
Youyi	3,100.0	79.1	3.0	1
Yuepu	15,084.2	51.1	5.4	1
Gucun	7,150.6	55.7	4.8	1
Luojin	13,113.8	39.0	4.2	1
$r_k$	-0.670	0.658	0.703	
$P$	0.017*	0.020*	0.011*	

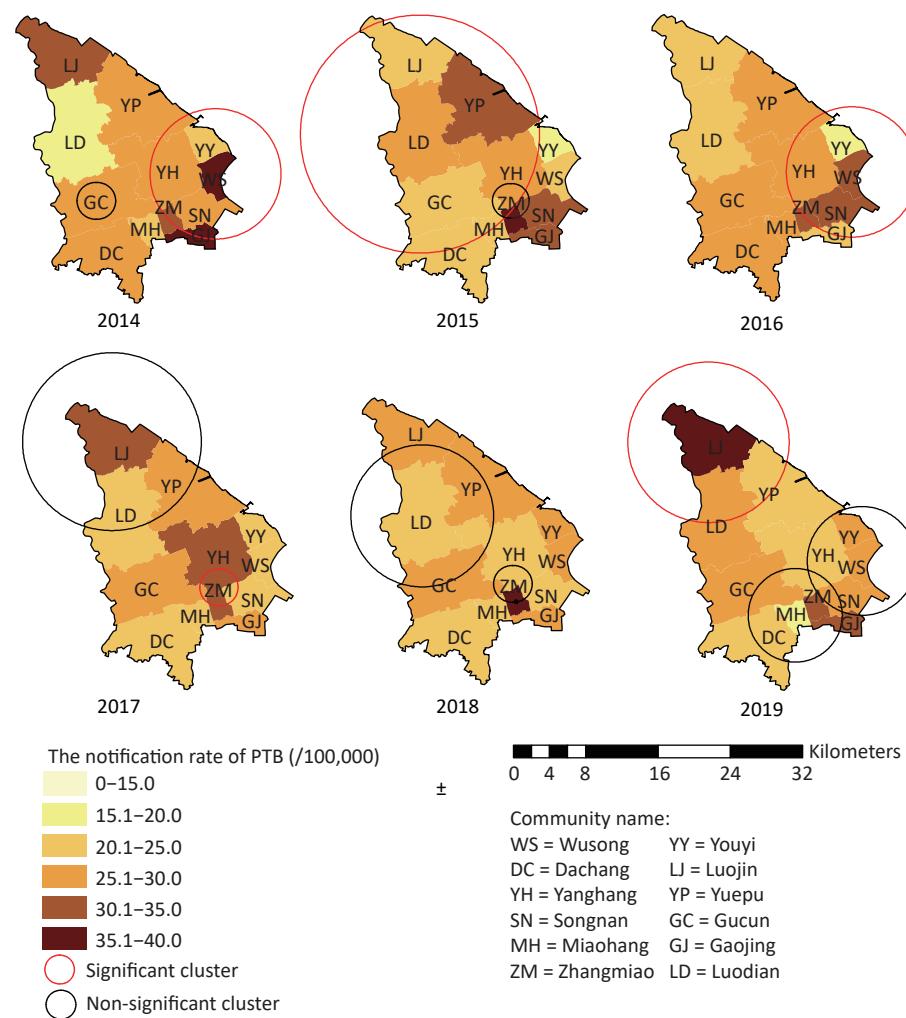
**Note.** PTB, Pulmonary tuberculosis; GDP per capita, Gross Domestic Products per capita; NTR, native-total population ratio; LSGR, lowest society guarantees rate;  $r_k$ , Spearman's rank correlation coefficient; \* $P < 0.05$ .



**Supplementary Figure S1.** The geographical location of Baoshan district distributed in Shanghai (Blue area represents Baoshan district of Shanghai city and the right map presents the Baoshan district at the community level).



**Supplementary Figure S2.** The monthly trend of PTB cases in Baoshan district, Shanghai from 2014 to 2019.



**Supplementary Figure S3.** The spatial-temporal cluster of PTB cases at community-level from 2014 to 2019 in Baoshan district, Shanghai (red circle and black circle represents the statistically significant clusters, non-significant clusters respectively).