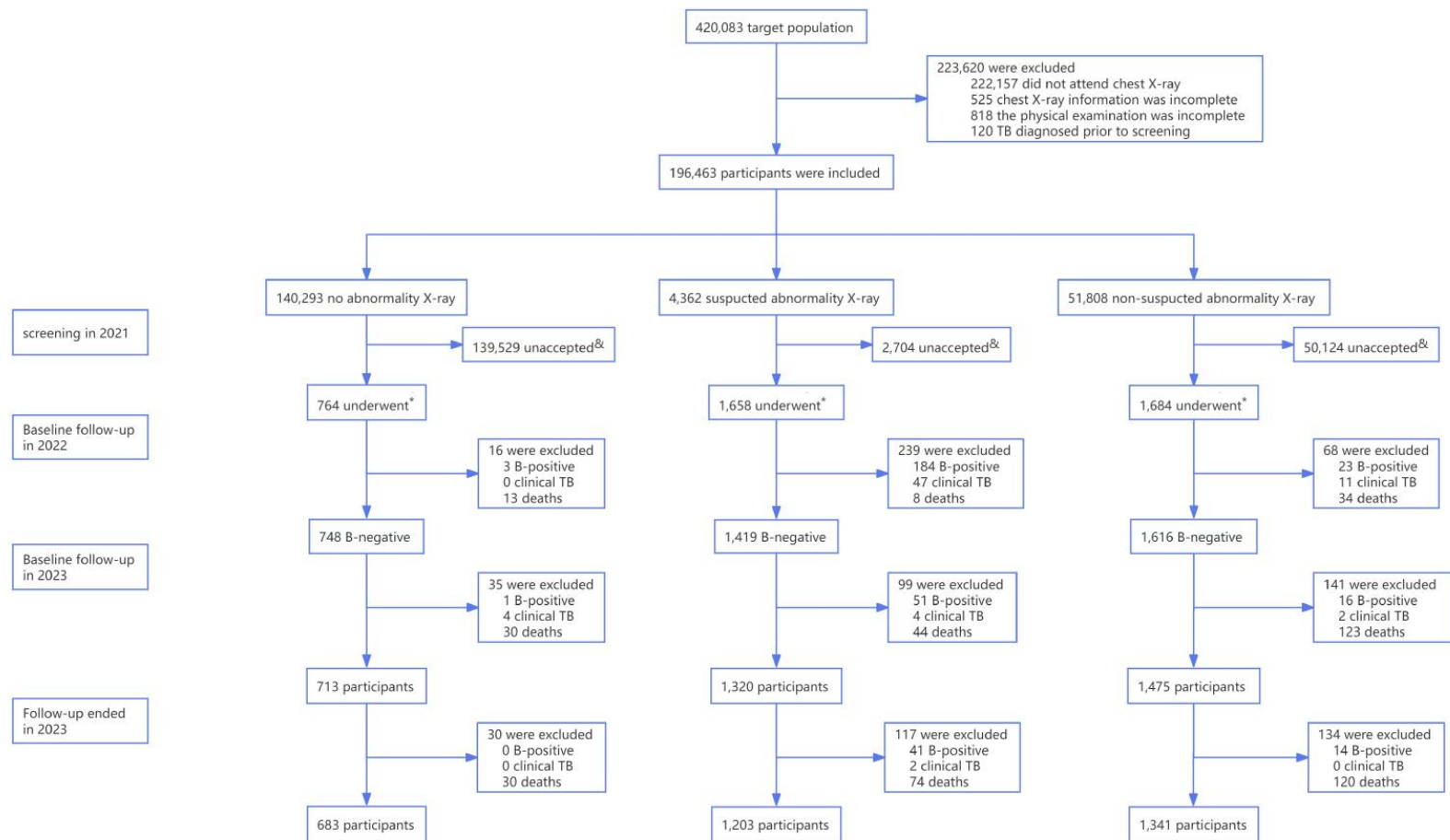
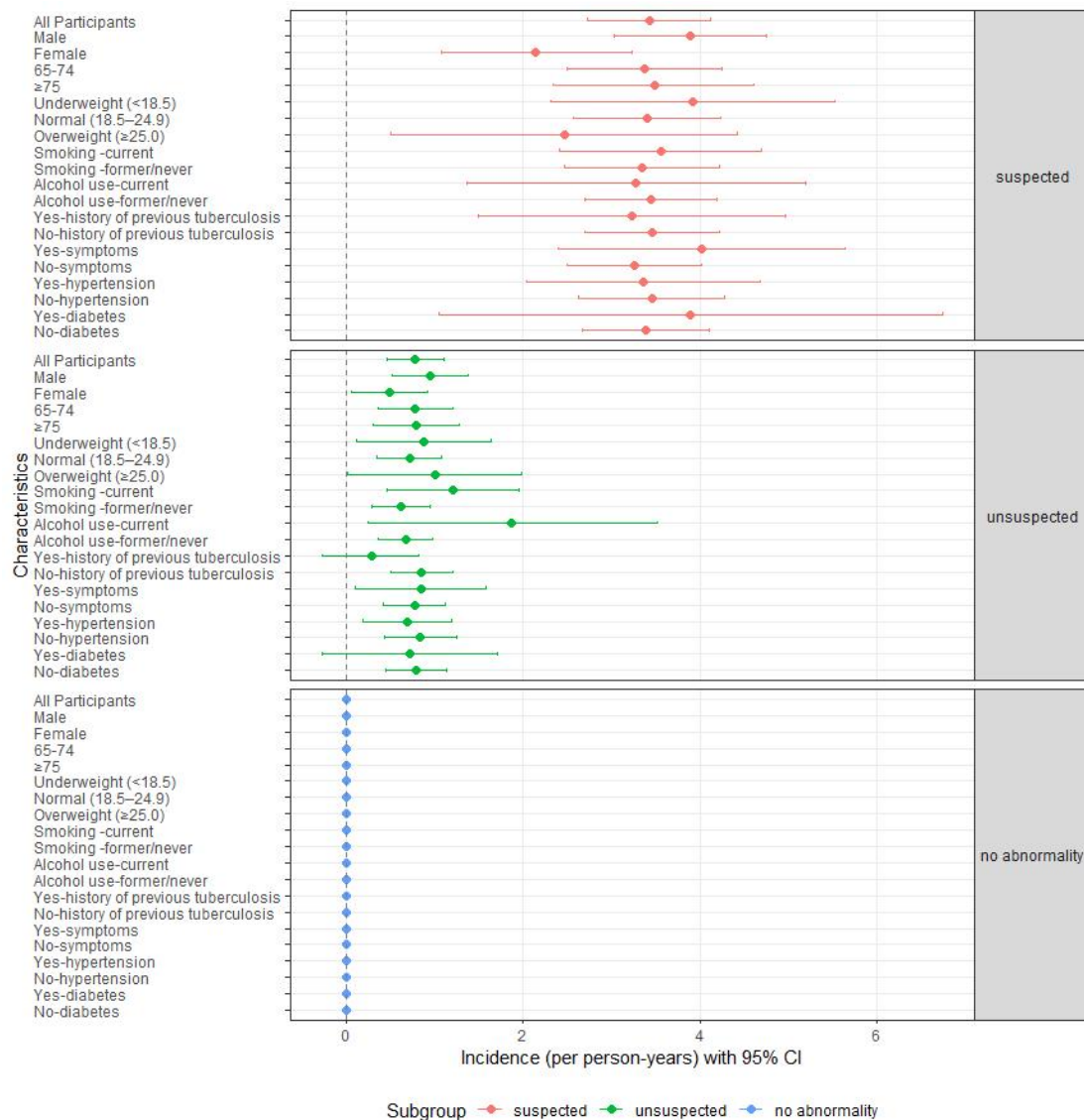


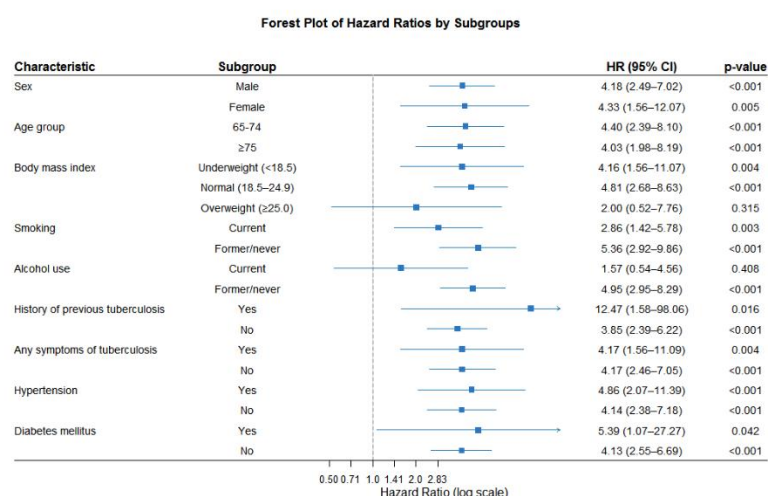


Supplementary Figure S1. Flowchart outlining participant enrolment and follow-up process. * Underwent bacteriological testing. &Did not undergo bacteriological testing. B, Bacteriologically test. TB, tuberculosis.



Supplementary Figure S2. Incidence of confirmed active tuberculosis in study participant subgroups with respect to chest radiography at baseline.

Supplementary Figure S2 presents comparisons stratified by baseline CXR imaging characteristics. The red bars represent the group with CXR imaging findings classified as suspected TB lesions at baseline, the green bars represent the group with non-suspected TB lesions at baseline, and the blue bars represent the group with no abnormalities on baseline CXR imaging. Regarding population characteristics within these strata. In the red group (baseline suspected TB lesions): Males had a significantly higher risk than females ($HR = 1.814$; 95% CI : 1.042–3.158), no other significant associations were observed for the remaining characteristics analyzed. In the green group (baseline non-suspected TB lesions): Current alcohol consumption was associated with a significantly higher risk compared to non-drinkers or former drinkers ($HR = 2.785$; 95% CI : 1.034–7.500), no other significant associations were found for the remaining characteristics. In the blue group (no baseline abnormalities): No incident bacteriologically positive TB cases occurred during follow-up, precluding statistical analysis for risk factors.



Supplementary Figure S3. Stratified analysis on the risk of confirmed active tuberculosis among participants with chest radiography abnormalities suggestive of active tuberculosis at baseline.

Supplementary Figure S3 presents a stratified analysis of the risk of progression to active pulmonary tuberculosis (PTB) comparing the baseline suspected TB lesion group and the non-suspected lesion group. Adjust for sex, age, any symptoms of tuberculosis, median body Index, hypertension, diabetes mellitus, smoking, alcohol use, history of previous tuberculosis. Across all strata analyzed, age, sex, presence of any TB symptoms, diabetes status, smoking status, and history of prior TB as the risk of progression was consistently higher in the baseline suspected TB lesion group than in the non-suspected lesion group. Significant differences between the two groups were observed for all stratification factors except high body mass index and current alcohol consumption, where no statistically significant differences were found.

Supplementary Table S1-1. Basic characteristics of participants with or without systematic screening of tuberculosis

Characteristic	Active screening	No active screening	P-value
All Participants, <i>n</i> (%)	196,463 (46.8)	223,620 (53.2)	
Sex, <i>n</i> (%)			1478.128 0.000
Male	91,800 (46.7)	117,782 (52.7)	
Female	104,663 (53.3)	105,838 (47.3)	
Age group, <i>n</i> (%)			2234.881 0.000
65–74	135,709 (69.1)	138,915 (62.1)	
≥ 75	60,754 (30.9)	84,705 (37.9)	
Region, <i>n</i> (%)			34705.471 0.000
Kecheng	20,769 (26.8)	56,840 (73.2)	

Qujiang	22,664 (32.0)	48,058 (68.0)
Longyou	37,401 (51.7)	34,978 (48.3)
Jiangshang	61,195 (63.1)	35,735 (36.9)
Changshang	31,156 (62.3)	18,881 (37.7)
Kaihua	23,278 (44.4)	29,128 (55.6)

Supplementary Table S1-2. Distribution of chest X-ray detection in different characteristic populations during screening

Characteristic	Total	No abnormality	Any abnormality, <i>n</i> = 56,170	
			Suspected lesions	non-suspected lesions
All Participants, <i>n</i> (%)	196,463	140,293 (71.4)	4,362 (2.2)	51,808 (26.4)
Sex, <i>n</i> (%)				
Male	91,800 (46.7)	61,986 (44.2)	2,967 (68.0)	26,847 (51.8)
Female	104,663 (53.3)	78,307 (55.8)	1,395 (32.0)	24,961 (48.2)
Mean age, years (SD)	72.78 (5.997)	72.32 (5.737)	73.91 (6.278)	73.95 (6.472)
Age group, <i>n</i> (%)				
65-74	135,709 (69.1)	101,031 (72.0)	2,679 (61.4)	31,999 (61.8)
≥ 75	60,754 (30.9)	39,262 (28.0)	1,683 (38.6)	19,809 (38.2)
Region, <i>n</i> (%)				
Kecheng	20,769 (10.6)	15,477 (74.5)	348 (1.7)	4,944 (23.8)
Qujiang	22,664 (11.5)	19,402 (85.6)	413 (1.8)	2,849 (12.6)
Longyou	37,401 (19.0)	22,967 (61.4)	469 (1.3)	13,965 (37.3)
Jiangshang	61,195 (31.1)	44,536 (72.7)	1,187 (2.0)	15,472 (25.3)
Changshang	31,156 (15.9)	20,995 (67.3)	1,056 (3.4)	9,105 (29.2)
Kaihua	23,278 (11.8)	16,916 (72.6)	889 (3.9)	5,473 (23.5)
Any symptoms of tuberculosis [#] , <i>n</i> (%)				
Yes	15,790 (8.0)	9,330(6.7)	906 (20.8)	5,554 (10.7)
No	180,673 (92.0)	130,963 (93.3)	3,456 (79.2)	46,254 (89.3)
Median body Index,kg/m ²				
Underweight (< 18.5)	15,412 (7.8)	9,068 (6.5)	890 (20.4)	5,454 (10.5)
Normal (18.5–24.9)	131,150 (66.8)	93,114 (66.4)	2,935 (67.3)	35,101 (67.8)
Overweight (≥ 25.0)	49,901 (25.4)	38,111 (27.2)	537 (12.3)	11,253 (21.7)
In the tube of hypertension, <i>n</i> (%)				
Yes	83,388 (42.4)	58,958 (42.0)	1,362 (31.2)	23,068 (44.5)
No	113,075 (57.6)	81,335 (58.0)	3,000 (68.8)	28,740 (55.5)
In the tube of diabetes mellitus, <i>n</i> (%)				
Yes	20,018 (10.2)	14,677 (10.5)	340 (7.8)	5,001 (9.7)
No	176,445 (89.8)	125,616 (89.5)	4,022 (92.2)	46,807(90.3)
Smoking				

Current	48,668 (24.8)	33,414 (23.8)	1,414 (32.4)	13,840 (26.7)
Former/never	147,795 (75.2)	106,879 (76.2)	2,948 (67.6)	37,968 (73.3)
Alcohol use				
Current	23,960 (12.2)	16,286 (11.6)	429 (9.8)	7,245 (14.0)
Former/never	172,503 (87.8)	124,007 (88.4)	3,933 (90.2)	44,563 (86.0)
History of previous tuberculosis				
Yes	2,226 (1.1)	798 (0.6)	438 (10.0)	990 (1.9)
No	194,237 (98.9)	139,495 (99.4)	3,924 (90.0)	50,818 (98.1)

Supplementary Table S1-3. Undergoing bacteriologically tests of participants with chest X-ray stratified during screening in 2021

Characteristics	N	Smear								Culture								GeneXpert MTB/RIF							
		n	%	(+)		(-)		Median	IQR (Q1, Q3)	n	%	n	%	n	%	Media n	IQR (Q1, Q3)	n	%	n	%	n	%	Median	IQR (Q1, Q3)
				n	%	n	%																		
All Participants	196463	3950	2.0	80	2.0	3870	98.0	3	(2, 3)	1662	0.8	149	9.0	1513	91.0	1	(1,2)	492	0.3	134	27.2	358	72.8	1	(1,2)
No abnormality	140293	694	0.5	4	0.6	690	99.4	2	(1, 3)	129	0.1	2	1.6	127	98.4	1	(1,2)	55	0.0	2	3.6	53	96.4	1	(1,1)
Abnormality, suspected	4362	1634	37.5	63	3.9	1609	98.5	3	(3, 3)	1079	24.7	128	11.9	951	88.1	1	(1,2)	245	5.6	119	48.6	126	51.4	1	(1,2)
Abnormality, unsuspected	51808	1622	3.1	13	0.8	1571	96.9	3	(2, 4)	454	0.9	19	4.2	435	95.8	1	(1,2)	192	0.4	13	6.8	179	93.2	1	(1,2)

Note. IQR,inter quartile range.

Supplementary Table S1-4. Undergoing bacteriologically tests and tuberculosis case finding of participants with chest X-ray stratified during screening in 2021

Characteristics	N	Smear or culture or Xpert									Culture or Xpert				Culture and Xpert					Confirmed TB	Unaccepted bacteriologically tests		
					(+)			(-)					(+)		(-)		case,n						
		n	%	n	%	Confirmed TB case	n	%	Clinically TB case	n	%	n	n	Confirmed TB case	n	%	n	n	Confirmed TB case	N	Incidence rate per 100 thousand	n	%
All Participants	196463	4106	2.1	210	5.1	204	3896	94.9	58	1784	0.9	204	1580	204	370	0.2	144	226	145	204	103.8	192357	97.9
No abnormality	140293	764	0.5	3	0.4	3	761	99.6	0	161	0.1	3	158	3	23	0.0	1	22	1	3	2.1	139529	99.5
Abnormality,suspected	4362	1658	38.0	184	11.1	178	1474	88.9	47	1097	25.1	178	919	178	227	5.2	134	93	135	178	4080.7	2704	62.0
Abnormality,unsuspected	51808	1684	3.3	23	1.4	23	1661	98.6	11	526	1.0	23	503	23	120	0.2	9	111	9	23	44.4	50124	96.7

TB, tuberculosis.Xpert,GeneXpert MTB/RIF

Supplementary Table S1-5. Incidence of confirmed tuberculosis case with chest X-ray stratified during screening in 2021

Characteristic	N,population	confirmed TB,case	Incidence rate per 100 thousand(95% CI)	Hazard ratio (95% CI)	P-value
All Participants	196463	204	103.8(89.6-118.1)		0.000
No abnormality	140293	3	2.1(-0.3-4.6)	Refence	
Abnormality,suspected	4362	178	4080.7(3493.3-4668.0)	1743.649(555.500-5473.110)	0.000
Abnormality,unsuspected	51808	23	44.4(26.3-62.5)	19.495(5.850-64.970)	0.000

TB,tuberculosis. CI, confidence interval.Hazard ratio,logistic regression model.

Supplementary Table S2-1. Individuals with bacteriological negative baselines will undergo bacteriological test after screening,in 2022

Characteristics	N	Clinically	Deaths,in 2021	Baseline followed-up, in 2022	Smear								Culture								GeneXpert MTB/RIF																		
		diagnosed TB case,in 2021			n	%	(+)		(-)		Median	IQR (Q1, Q3)	n	%	(+)		(-)		Median	IQR		n	%	(+)		(-)		Median	IQR (Q1, Q3)										
All Participants	3896	58	55	3783	912	24.1	22	2.4	890			623	16.5	53	8.5	570			148	3.9	45	30.4	103																
No abnormality	761	0	13	748	111	14.8	1	0.9	110	3	(1,4)	33	4.4	0	0.0	33	1	(1,2)	13	1.7	0	0.0	13	1	(1,1)														
Abnormality,suspected	1474	47	8	1419	406	28.6	14	3.4	392	3	(2,3.25)	406	28.6	40	9.9	366	1	(1,2)	80	5.6	36	45.0	44	1	(1,2)														
Abnormality,unsuspected	1661	11	34	1616	395	24.4	7	1.8	388	3	(2,5)	184	11.4	13	7.1	171	1	(1,2)	55	3.4	9	16.4	46	1	(1,2)														

TB,tuberculosis.IQR,inter quartile range.

Supplementary Table S2-2. Individuals with bacteriological negative baselines will undergo bacteriological test and positive findings after screening, in 2022

Characteristics	2021 year			Baseline followed-up	Person-years of follow-up	Smear or culture or GeneXpert MTB/RIF										unaccpeted	Follow-up ended, December 31, 2022
	N	Clinically TB case,N	Deaths			underwent											
						(+)				(-)							
						Confirmed TB case	with deaths	n	Deaths	Confirmed TB case	with deaths	n	Deaths				
All Participants	3896	58	55	3783	3633.7	1094	28.9	68	6.2	64	5	1026	10	66	2689	131	3508
No abnormality	761	0	13	748	727.4	119	15.9	1	0.8	0	0	118	4	9	629	21	713
Abnormality,suspected	1474	47	8	1419	1373.0	522	36.8	51	9.8	50	5	471	4	17	897	27	1320
Abnormality,unsuspected	1661	11	34	1616	1540.8	453	28.0	16	3.5	14	0	437	2	40	1163	83	1475

TB,tuberculosis.

Supplementary Table S2-3. Individuals with bacteriological negative baselines will undergo bacteriological test after screening in 2023

Characteristics	N	Smear										Culture						GeneXpert MTB/RIF						
				(+)		(-)		Media	IQR (Q1, Q3)			(+)		(-)		Me dia n	IQR (Q1, Q3)			(+)		(-)		IQR (Q1, Q3)
		n	%	n	%	n	%			n	%	n	%	n	%			n	%	Median				
All Participants	3508	549	15.6	24	4.4	525			215	6.1	32	14.9	183			138	3.9	40	29.0	98				
No abnormality	713	66	9.3	0	0.0	66	2	(1,2)	12	1.7	0	0.0	12	1	(1,1)	10	1.4	0	0.0	10	1	(1,2)		
Abnormality, suspected	1320	231	17.5	17	7.4	214	3	(2,4)	135	10.2	26	19.3	109	1	(1,1)	72	5.5	32	44.4	40	2	(1,2)		
Abnormality, unsuspected	1475	252	17.1	7	2.8	245	2	(1,3)	68	4.6	6	8.8	62	1	(1,1)	56	3.8	8	14.3	48	2	(1,2)		

TB,tuberculosis.IQR,inter quartile range.

Supplementary Table S2-4. Individuals with bacteriological negative baselines will undergo bacteriological test and positive findings after screening in 2023

Characteristics	Baseline followed-up	Person-years of follow-up	Smear or culture or GeneXpert MTB/RIF										unaccpeted	Follow-up ended, December 31, 2023
			underwent											
					(+)		(-)							
			n	%	n	%	Confirmed TB case	with deat hs	n	Clinica lly TB case	Deat hs	n		
All Participants	3508	3349.9	572	16.3	55	9.6	49	6	517	2	52	2956	172	3227
No abnormality	713	693.5	66	9.3	0	0.0	0	0	66	0	6	647	24	683
Abnormality,suspec ted	1320	1258.3	243	18.4	41	16.9	40	3	202	2	18	1077	56	1203
Abnormality,unsus pected	1475	1398.1	263	17.8	14	5.3	9	3	249	0	28	1232	92	1341

TB,tuberculosis

Supplementary Table S2-5. Individuals with bacteriological negative baselines will undergo bacteriological test and positive findings after screening in 2022-2023

Characteristics	Baseline followed-up	Person-years of follow-up	Smear or culture or GeneXpert MTB/RIF											unaccpeted		Follow-up ended, December 31, 2022
			underwent								(-)					
			(+)													
			n	%	n	Detection rate, %	Confirmed TB case	Detection rate, %	Incidence rate, per 100 thousands	with deaths	n	Clinically TB case	Deaths	n	Deaths	
All Participants	3783	6991.1	1666	44.0	123	7.4	113	6.8	1616.3	11	1543	12	118	5645	303	6735
No abnormality	748	1420.9	185	24.7	1	0.5	0	0.0	0.0	0	184	4	15	1276	45	1396
Abnormality,suspected	1419	2631.3	765	53.9	92	12.0	90	11.8	3420.4	8	673	6	35	1974	83	2523
Abnormality,unsuspected	1616	2938.9	716	44.3	30	4.2	23	3.2	782.6	3	686	2	68	2395	175	2816

TB,tuberculosis

Supplementary Table S2-6 Incidence of confirmed active tuberculosis in X-ray stratified after screening

	N,at risk	Person-years	N,Confirmed TB case	Incidence per 100 thousands person- years (95% CI)	Age and sex- adjusted	Hazard ratio (95% CI)		
						<i>p-value</i>	Full model [†]	<i>p-value</i>
After screening, all‡						0.000		0.000
All Participants	3783	6991.1	113	1616.3(1320.7-1912.0)				
No abnormality	748	1420.9	0	0.0(0.0-0.0)	—		—	
Abnormality,suspected	1419	2631.3	90	3420.4(2725.8-4115.7)	4.191(2.648-6.633)	0.000	4.215(2.655-6.691)	0.000
Abnormality,unsuspected	1616	2938.9	23	782.6(463.7-1101.0)	Reference		Reference	

CI, confidence interval. †Adjusted for age, sex, body mass index,smoking ,alcohol use,history of previous tuberculosis,any symptoms of tuberculosis,hypertension,diabetes.

‡The total follow-up time period was defined as from January 1, 2022 to December 31, 2023.This time period began >1 year after completion of screening and ran from January 1, 2023 to December 31, 2023.

Supplementary Table S2-7 Incidence of confirmed active tuberculosis with population characteristics in X-ray suspected abnormality

Characteristic	N,at risk	Person-years	N,Confirmed TB case	Incidence percentage person-years (95% CI)	Hazard ratio (95% CI)	<i>p-value</i>
All Participants	1419	2631.3	90	3.42(2.73-4.12)		
Sex						0.035
Male	1049	1931.0	75	3.88(3.02-4.75)	1.814(1.042-3.158)	
Female	370	700.3	15	2.14(1.07-3.22)	Reference	
Age group						0.862
65-74	866	1630.7	55	3.37(2.50-4.25)	Reference	
≥75	553	1006.6	35	3.48(2.34-4.61)	1.038(0.680-1.586)	
Any symptoms of tuberculosis						0.380
Yes	323	573.1	23	4.01(2.40-5.63)	1.236(0.770-1.985)	
No	1096	2058.2	67	3.26(2.49-4.02)	Reference	
Median body Index,kg/m2						0.582
Underweight (<18.5)	317	561.6	22	3.91(2.31-5.52)	1.158(0.712-1.883)	0.555
Normal (18.5–24.9)	975	1825.9	62	3.40(2.56-4.23)	Reference	
Overweight (≥25.0)	127	243.8	6	2.46(0.50-4.42)	0.723(0.313-1.672)	0.449
In the tube of hypertension						0.898
Yes	387	717.1	24	3.35(2.03-4.67)	0.970(0.608-1.548)	
No	1032	1914.2	66	3.45(2.63-4.27)	Reference	
In the tube of diabetes mellitus						0.722

Yes	99	180.1	7	3.89(1.04-6.74)	1.150(0.532-2.488)	
No	1320	2451.3	83	3.39(2.67-4.10)	Reference	
Smoking						0.787
Current	545	1015.4	36	3.55(2.41-4.69)	1.060(0.695-1.616)	
Former/never	874	1615.9	54	3.34(2.46-4.22)	Reference	
Alcohol use						0.867
Current	175	336.1	11	3.27(1.36-5.19)	0.948(0.504-1.781)	
Former/never	1244	2295.2	79	3.44(2.70-4.19)	Reference	
History of previous tuberculosis						0.818
Yes	215	402.9	13	3.23(1.49-4.96)	0.933(0.519-1.680)	
No	1204	2228.4	77	3.46(2.70-4.22)	Reference	

CI, confidence interval

Supplementary Table S2-8. Incidence of confirmed active tuberculosis with population characteristics in X-ray unsuspected abnormality

Characteristic	N,at risk	Person-years	N,Confirmed TB case	Incidence percentage person-years (95% CI)	Hazard ratio (95% CI)	<i>p-value</i>
All Participants	1616	2938.9	23	0.78(0.46-1.10)		
Sex,n(%)						0.208
Male	1074	1924.2	18	0.94(0.51-1.37)	1.891(0.702-5.093)	
Female	542	1014.7	5	0.49(0.06-0.92)	Reference	
Age group,n(%)						0.972
65-74	904	1673.7	13	0.78(0.36-1.20)	Reference	
≥75	712	1265.2	10	0.79(0.30-1.28)	1.015(0.445-2.315)	
Any symptoms of tuberculosis#						0.856
Yes	332	593.8	5	0.84(0.10-1.58)	0.196(0.407-2.953)	
No	1284	2345.1	18	0.77(0.41-1.12)	Reference	
Median body Index,kg/m2						0.805
Underweight (<18.5)	320	572.4	5	0.87(0.11-1.64)	1.228(0.442-3.409)	0.694
Normal (18.5–24.9)	1082	1967.2	14	0.71(0.34-1.08)	Reference	
Overweight (≥25.0)	214	399.3	4	1.00(0.02-1.98)	1.411(0.464-4.287)	0.544
In the tube of hypertension						0.662
Yes	571	1021.7	7	0.69(0.18-1.19)	0.820(0.337-1.994)	
No	1045	1917.2	16	0.83(0.43-1.24)	Reference	
In the tube of diabetes mellitus						0.894
Yes	155	280.4	2	0.71(-0.28-1.71)	0.906(0.212-3.863)	

No	1461	2658.5	21	0.79(0.45-1.13)	Reference	
Smoking						0.111
Current	458	829.5	10	1.21(0.46-1.95)	1.954(0.857-4.457)	
Former/never	1158	2109.4	13	0.62(0.28-0.95)	Reference	
Alcohol use						0.043
Current	141	267.1	5	1.87(0.24-3.51)	2.785(1.034-7.500)	
Former/never	1475	2671.8	18	0.67(0.36-0.98)	Reference	
History of previous tuberculosis						0.269
Yes	195	363.5	1	0.28(-0.27-0.82)	0.323(0.044-2.398)	
No	1421	2575.4	22	0.85(0.50-1.21)	Reference	

CI, confidence interval

Supplementary Table S2-9. Incidence of confirmed active tuberculosis with baseline X-ray no abnormality

Characteristic	N,at risk	Person-years	N,Confirmed TB case	Incidence percentage person-years (95% CI)	Hazard ratio (95% CI)	<i>p-value</i>
All Participants	748	1420.9	0	0.00(0.00-0.00)	—	—
Sex,n(%)						
Male	424	794.5	0	0.00(0.00-0.00)	—	—
Female	324	626.4	0	0.00(0.00-0.00)	—	—
Age group,n(%)						
65-74	482	935.9	0	0.00(0.00-0.00)	—	—
≥75	266	485.0	0	0.00(0.00-0.00)	—	—
Any symptoms of tuberculosis#						
Yes	71	128.4	0	0.00(0.00-0.00)	—	—
No	677	1292.5	0	0.00(0.00-0.00)	—	—
Median body Index,kg/m2						
Underweight (<18.5)	68	122.4	0	0.00(0.00-0.00)	—	—
Normal (18.5–24.9)	482	915.3	0	0.00(0.00-0.00)	—	—
Overweight (≥25.0)	198	383.2	0	0.00(0.00-0.00)		
In the tube of hypertension						
Yes	170	313.6	0	0.00(0.00-0.00)	—	—
No	578	1107.3	0	0.00(0.00-0.00)	—	—
In the tube of diabetes mellitus						
Yes	59	104.3	0	0.00(0.00-0.00)	—	—

No	689	1316.6	0	0.00(0.00-0.00)	—	—
Smoking						
Current	181	337.4	0	0.00(0.00-0.00)	—	—
Former/never	567	1083.5	0	0.00(0.00-0.00)	—	—
Alcohol use						
Current	26	50.2	0	0.00(0.00-0.00)	—	—
Former/never	722	1370.7	0	0.00(0.00-0.00)	—	—
History of previous tuberculosis						
Yes	52	99.9	0	0.00(0.00-0.00)	—	—
No	696	1321.0	0	0.00(0.00-0.00)	—	—

CI, confidence interval

Supplementary Table S2-10 The risk of confirmed active tuberculosis with suspected and unsuspected of chest X-ray in population characteristics

Characteristic	N,at risk	Person-years	N,Confirmed TB case	Incidence percentage person-years (95% CI)	*Hazard ratio (95% CI)	<i>p-value</i>	Hazard ratio Full model† (95% CI)	<i>p-value</i>
Sex								
Male						0.000		0.000
Suspected	1049	1931.0	75	3.88(3.02-4.75)	4.144(2.477-6.932)		4.18(2.49-7.02)	
unsuspected	1074	1924.2	18	0.94(0.51-1.37)	Reference		Reference	
Female						0.004		0.005
Suspected	370	700.3	15	2.14(1.07-3.22)	4.338(1.577-11.937)		4.33(1.56-12.07)	
unsuspected	542	1014.7	5	0.49(0.06-0.92)	Reference		Reference	
Age group								
65-74						0.000		0.000
Suspected	866	1630.7	55	3.37(2.50-4.25)	4.338(2.370-7.940)		4.40(2.39-8.10)	
unsuspected	904	1673.7	13	0.78(0.36-1.20)	Reference		Reference	
≥75						0.000		0.000
Suspected	553	1006.6	35	3.48(2.34-4.61)	4.414(2.186-8.914)		4.03(1.98-8.19)	
unsuspected	712	1265.2	10	0.79(0.30-1.28)	Reference		Reference	
Any symptoms of tuberculosis								
Yes						0.002		0.004
Suspected	323	573.1	23	4.01(2.40-5.63)	4.741(1.802-12.470)		4.17(1.57-11.09)	
unsuspected	332	593.8	5	0.84(0.10-1.58)	Reference		Reference	
No						0.000		0.000

Suspected	1096	2058.2	67	3.26(2.49-4.02)	4.235(2.517-7.126)	4.17(2.46-7.05)	
unsuspected	1284	2345.1	18	0.77(0.41-1.12)	Reference	Reference	
Median body Index,kg/m2							
Underweight (<18.5)						0.003	0.004
Suspected	317	561.6	22	3.92(2.31-5.52)	4.460(1.689-11.777)	4.16(1.56-11.07)	
unsuspected	320	572.4	5	0.87(0.11-1.64)	Reference	Reference	
Normal (18.5–24.9)						0.000	0.000
Suspected	975	1825.9	62	3.40(2.56-4.23)	4.761(2.666-8.503)	4.81(2.68-8.64)	
unsuspected	1082	1967.2	14	0.71(0.34-1.08)	Reference	Reference	
Overweight (≥25.0)						0.163	0.315
Suspected	127	243.8	6	2.46(0.50-4.42)	2.459(0.694-8.714)	2.00(0.52-7.76)	
unsuspected	214	399.3	4	1.00(0.02-1.98)	Reference	Reference	
In the tube of hypertension							
Yes						0.000	0.000
Suspected	387	717.1	24	3.35(2.03-4.67)	4.866(2.097-11.294)	4.86(2.07-11.39)	
unsuspected	571	1021.7	7	0.69(0.18-1.19)	Reference	Reference	
No						0.000	0.000
Suspected	1032	1914.2	66	3.45(2.63-4.27)	4.127(2.390-7.126)	4.14(2.38-7.18)	
unsuspected	1045	1917.2	16	0.83(0.43-1.24)	Reference	Reference	
In the tube of diabetes mellitus							
Yes						0.034	0.042
Suspected	99	180.1	7	3.89(1.04-6.74)	5.455(1.133-26.263)	5.39(1.07-27.27)	
unsuspected	155	280.4	2	0.71(-0.28-1.71)	Reference	Reference	
No						0.000	0.000
Suspected	1320	2451.3	83	3.39(2.67-4.10)	4.282(2.653-6.911)	4.13(2.55-6.69)	
unsuspected	1461	2658.5	21	0.79(0.45-1.13)	Reference	Reference	

Smoking								
Current						0.003		0.003
Suspected	545	829.5	36	4.34(2.95-5.730)	2.943(1.461-5.931)		2.86(1.42-5.78)	
unsuspected	458	1015.5	10	0.98(0.38-1.59)	Reference		Reference	
Former/never						0.000		0.000
Suspected	874	1615.9	54	3.34(2.46-4.22)	5.413(2.954-9.918)		5.36(2.92-9.86)	
unsuspected	1158	2109.4	13	0.62(0.28-0.95)	Reference		Reference	
Alcohol use								
Current						0.300		0.408
Suspected	175	336.1	11	3.27(1.36-5.190)	1.749(0.608-5.034)		1.57(0.54-4.56)	
unsuspected	141	267.1	5	1.87(0.24-3.51)	Reference		Reference	
Former/never						0.000		0.000
Suspected	1244	2295.2	79	3.44(2.70-4.19)	5.102(3.058-8.512)		4.95(2.95-8.29)	
unsuspected	1475	2671.8	18	0.67(0.36-0.98)	Reference		Reference	
History of previous tuberculosis								
Yes						0.018		0.016
Suspected	215	402.9	13	3.23(1.49-4.96)	11.696(1.530-89.410)		12.47(1.59-98.06)	
unsuspected	195	363.5	1	0.28(-0.27-0.820)	Reference		Reference	
No						0.000		0.000
Suspected	1204	2228.4	77	3.46(2.70-4.22)	4.041(2.516-6.490)		3.85(2.39-6.22)	
unsuspected	1421	2575.4	22	0.85(0.50-1.21)	Reference		Reference	

CI, confidence interval,*The Hazard ratio for the risk of tuberculosis occurrence in chest X-ray suspected cases versus unsuspected cases under different characteristics.

Full model† adjust for sex、age、any symptoms of tuberculosis、median body Index、hypertension、diabetes mellitus、smoking 、alcohol use、history of previous tuberculosis

Supplementary Table S3-1. Treatment outcomes of confirmed tuberculosis cases during screening,in 2021

Characteristics	Confirmed TB case,n	Receive treatment											Not receiving treatment		
		N	%	Treatment successes				Treatment failure				with deaths,n	N	%	with deaths,n
				Cure	Complete the course of treatment	subtotal	%	deaths	others	subtotal	%				
All Participants	204	175	85.8	139	18	157	89.7	0	18	18	10.3	0	29	14.2	1
No abnormality	3	2	66.7	2	0	2	100.0	0	0	0	0.0	0	1	33.3	0
Abnormality,suspected	178	158	88.8	125	16	141	89.2	0	17	17	10.8	0	20	11.2	0
Abnormality,unsuspected	23	15	65.2	12	2	14	93.3	0	1	1	6.7	0	8	34.8	1

Treatment acceptance rate is defined as the percentage of active tuberculosis cases who initiated treatment among all confirmed active tuberculosis cases.

Treatment success rate refers to the proportion of patients who were either cured or completed treatment regimen among those who started anti-tuberculosis therapy, expressed as a percentage.