

1 **Supplementary Material**

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14 **Supplementary Tables**15 **Supplementary Table 1. Characteristics of contacts according to losses and**
16 **completeness of LTBI cascade of care**

Characteristics	Lost in the cascade (n=895)*	Completed the cascade (n=1001)	p-value
Female– no. (%)	538 (60)	589 (59)	0.542
Age – median (IQR)	31 (16-47)	33 (17-47)	0.078
Race/Ethnicity – no. (%)			0.024
Black/ Pardo	741 (83)	761 (76)	
Others	153 (17)	240 (24)	
Income – no. (%)			0.009
More than a minimum wage	285 (33)	412 (43)	
Equal or less than a minimum wage	386 (44)	365 (38)	
Without income	197 (23)	189 (19)	
BCG scar – no. (%)	802 (90)	893 (89)	0.820
Time (V1_{TB}-V1_C) – median (IQR)	33 (8-82)	41 (14-102)	0.055
HIV infection – no. (%)	31 (4)	15 (2)	0.018
Antiretroviral therapy – no. (%)	23 (74)	13 (87)	0.460
Education– no. (%)			<0.001
Literate	753 (84)	950 (95)	
Illiterate	141 (16)	50 (5)	

Smoking – no. (%)	247 (28)	254 (25)	0.427
Secondary smoking – no. (%)	319 (36)	284 (28)	0.105
Alcohol consumption – no. (%)	471 (53)	545 (54)	0.433
Alcohol consumption (years)-median (IQR)	12 (4-22)	11 (3-20)	0.337
CAGE score of 2 and above^a – no. (%)	82 (26)	96 (29)	0.333
Illicit drug use – no. (%)	91 (10)	97 (10)	0.758
Comorbidities^b – no. (%)	241 (27)	204 (20)	0.069
Diabetes	43 (5)	52 (5)	0.752
Hypertension	132 (15)	101 (10)	0.003

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18 **Table note:** Data represent no. (%), except for age time, which is presented as
 19 median and interquartile range (IQR) Continuous variables were compared using
 20 the Mann-Whitney *U* test and categorical variables were using the Fisher's exact
 21 test (2x2) or Pearson's chi-square test. Time ($V1_{TB}-V1_C$): time (in weeks) difference
 22 between the visit 1 of the TB case and the visit 1 of the contact.

23 *Five contacts are ongoing in the TPT

24 ^aAlcohol abuse was defined as a CAGE score ≥ 2 points (*Ewing, J.A. 1984. Detecting alcoholism: The CAGE questionnaire. JAMA.*)

26 ^b Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
 27 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
 28 and depression)

29 Abbreviations: TB: tuberculosis. LTBI: latent tuberculosis infection. TPT: TB
 30 preventive therapy

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37 **Supplementary Table 2. Characteristics of contacts according to Initiation of**38 **recommended TPT**

Characteristics	No initiation of	Initiation of	p-value
	recommended	recommended	
	TPT	TPT	
	(n=492)	(n=454*)	
Female– no. (%)	299 (61)	272 (60)	
Age – median (IQR)	32.5 (11-48)	32.6 (15-48)	0.902
Race/Ethnicity – no. (%)			0.247
Black/ Pardo	408 (83)	362 (80)	
Others	83 (17)	92 (20)	
Income – no. (%)			0.005
More than a minimum wage	150 (31)	171 (39)	
Equal or less than a minimum wage	236 (49)	175 (40)	
Without income	94 (20)	92 (21)	
BCG scar – no. (%)	444 (90)	400 (88)	0.296
Time (V1_{TB}-V1_C) – median (IQR)	24 (7-71)	45 (15-102)	0.027
HIV infection – no. (%)	19 (4)	26 (6)	0.555
Antiretroviral therapy – no. (%)	12 (63)	23 (89)	0.070
Education– no. (%)			<0.001
Literate	379 (77)	404 (89)	

Illiterate	113 (23)	50 (11)	
Smoking – no. (%)	131 (27)	134 (30)	0.911
Secondary smoking – no. (%)	190 (39)	134 (30)	0.001
Alcohol consumption – no. (%)	233 (47)	233 (51)	0.241
Alcohol consumption (years)- median (IQR)	14 (5-21)	13 (4-23)	0.918
CAGE score of 2 and above^a – no. (%)	31 (20)	40 (29)	0.133
Illicit drug use – no. (%)	37 (8)	54 (12)	0.128
Comorbidities^b – no. (%)	128 (26)	102 (23)	0.295
Diabetes	23 (5)	20 (4)	0.880
Hypertension	65 (13)	64 (14)	0.705

39 **Table note:** Data represent no. (%), except for age and time, which is presented
 40 as median and interquartile range (IQR) Continuous variables were compared
 41 using the Mann-Whitney *U* test and categorical variables were using the Fisher's
 42 exact test (2x2) or Pearson's chi-square test. Time (V1_{TB}-V1_C): time (in weeks)
 43 difference between the visit 1 of the TB case and the visit 1 of the contact.

44 * Among those to whom TPT was recommended (n=933)

45 ^a Alcohol abuse was defined as a CAGE score ≥ 2 points as described in Methods.

46 ^b Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
 47 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
 48 and depression)

49 Abbreviations: TB: tuberculosis. TPT: TB preventive therapy

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58 **Supplementary Table 3. Characteristics of contacts according to complete TB**
 59 **preventive therapy**

Characteristics	Incomplete	Complete	p-value
	TPT (n=202*)	TPT (n=247)	
Female– no. (%)	116 (57)	153 (62)	0.470
Age – median (IQR)	28.2 (15-43)	37.5 (15-53)	0.004
Race/Ethnicity – no. (%)			0.012
Black/ Pardo	172 (85)	185 (75)	
Others	30 (15)	62 (25)	
Income – no. (%)			0.030
More than a minimum wage	66 (34)	105 (44)	
Equal or less than a minimum wage	82 (42)	92 (39)	
Without income	47 (24)	41 (17)	
BCG scar – no. (%)	176 (87)	219 (89)	0.663
Time (V1_{TB}-V1_C) – median (IQR)	45 (14-92)	47 (17-106)	0.217
HIV infection – no. (%)	12 (6)	14 (6)	0.361
Antiretroviral therapy – no. (%)	11 (92)	12 (86)	1.000
Education– no. (%)			0.982
Literate	176 (87)	224 (91)	
Illiterate	26 (13)	23 (9)	
Smoking – no. (%)	55 (27)	77 (31)	0.195

Secondary smoking – no. (%)	63 (31)	69 (28)	0.641
Alcohol consumption – no. (%)	111 (55)	119 (48)	0.156
Alcohol consumption (years)- median (IQR)	12 (3-24)	14 (4-23)	0.581
CAGE score of 2 and above^a – no. (%)	26 (34)	12 (19)	0.058
Illicit drug use – no. (%)	27 (13)	25 (10)	0.876
Comorbidities^b – no. (%)	55 (27)	47 (19)	0.119
Diabetes	6 (3)	14 (6)	0.250
Hypertension	35 (17)	29 (12)	0.104

60 **Table note:** Data represent no. (%), except for age and time, which is presented
 61 as median and interquartile range (IQR) Continuous variables were compared
 62 using the Mann-Whitney *U* test and categorical variables were using the Fisher's
 63 exact test (2x2) or Pearson's chi-square test. Time (V1_{TB}-V1_C): time (in weeks)
 64 difference between the visit 1 of the TB case and the visit 1 of the contact.

65 *4 no recommended

66 ^a Alcohol abuse was defined as a CAGE score ≥ 2 points as described in Methods

67 ^b Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
 68 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
 69 and depression)

70 Abbreviations: TB: tuberculosis. LTBI: latent tuberculosis infection. TPT: TB
 71 preventive therapy

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81 **Supplementary Table 4. Characteristics of contacts according to 2nd IGRA**82 **performed**

Characteristics	2nd IGRA not performed (n=242)	2nd IGRA performed (n= 967)	p-value
Female– no. (%)	142 (59)	548 (57)	0.836
Age – median (IQR)	27.1 (16-44.)	30.3 (15-45)	0.412
Race/Ethnicity – no. (%)			0.883
Black/ Pardo	193 (80)	749 (78)	
Others	48 (20)	218 (23)	
Income – no. (%)			0.048
More than a minimum wage	81 (35)	392 (42)	
Equal or less than a minimum wage	83 (36)	362 (39)	
Without income	69 (29)	182 (19)	
BCG scar – no. (%)	221 (91)	865 (90)	0.475
Time (V1_{TB}-V1_C) – median (IQR)	36 (15-96)	40 (13-99)	0.955
HIV infection – no. (%)	7 (3)	28 (3)	0.883
Antiretroviral therapy – no. (%)	5 (71)	24 (86)	0.576
Education– no. (%)			0.632
Literate	211 (88)	860 (89)	

Illiterate	30 (12)	106 (11)	
Smoking – no. (%)	66 (27)	227 (24)	0.301
Secondary smoking – no. (%)	76 (32)	284 (30)	0.872
Alcohol consumption – no. (%)	133 (55)	510 (53)	0.565
Alcohol consumption (years)- median (IQR)	10 (2-18)	10 (3-18)	0.644
CAGE score of 2 and above^a – no. (%)	26 (27)	101 (32)	0.448
Illicit drug use – no. (%)	29 (12)	91 (9)	0.231
Comorbidities^b– no. (%)	73 (30)	196 (20)	0.023
Diabetes	19 (8)	43 (4)	0.049
Hypertension	40 (17)	93 (10)	0.004

83 **Table note:** Data represent no. (%), except for age and time, which is presented
 84 as median and interquartile range (IQR). Continuous variables were compared
 85 using the Mann-Whitney *U* test and categorical variables were using the Fisher's
 86 exact test (2x2) or Pearson's chi-square test. Time (V1_{TB}-V1_C): time (in weeks)
 87 difference between the visit 1 of the TB case and the visit 1 of the contact.

88 ^a Alcohol abuse was defined as a CAGE score ≥ 2 points as described in Methods.

89 ^b Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
 90 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
 91 and depression)

92 Abbreviations: TB: tuberculosis; IGRA: interferon-gamma release assay.

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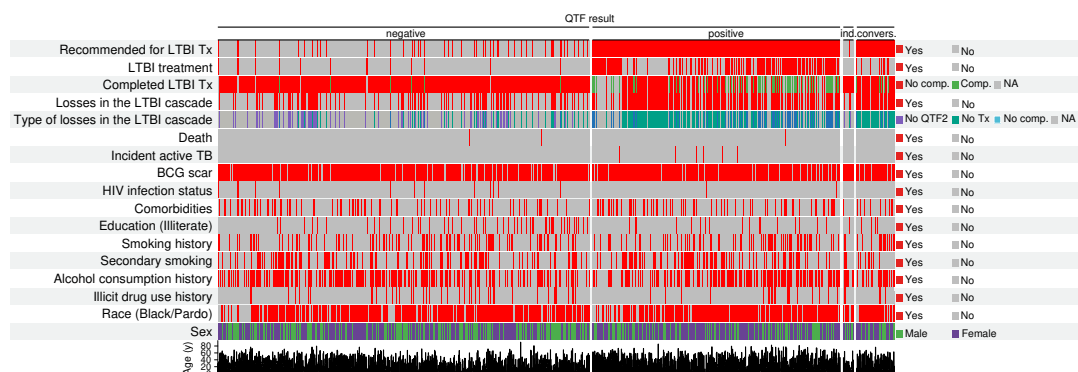
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100 **Supplementary Figures**

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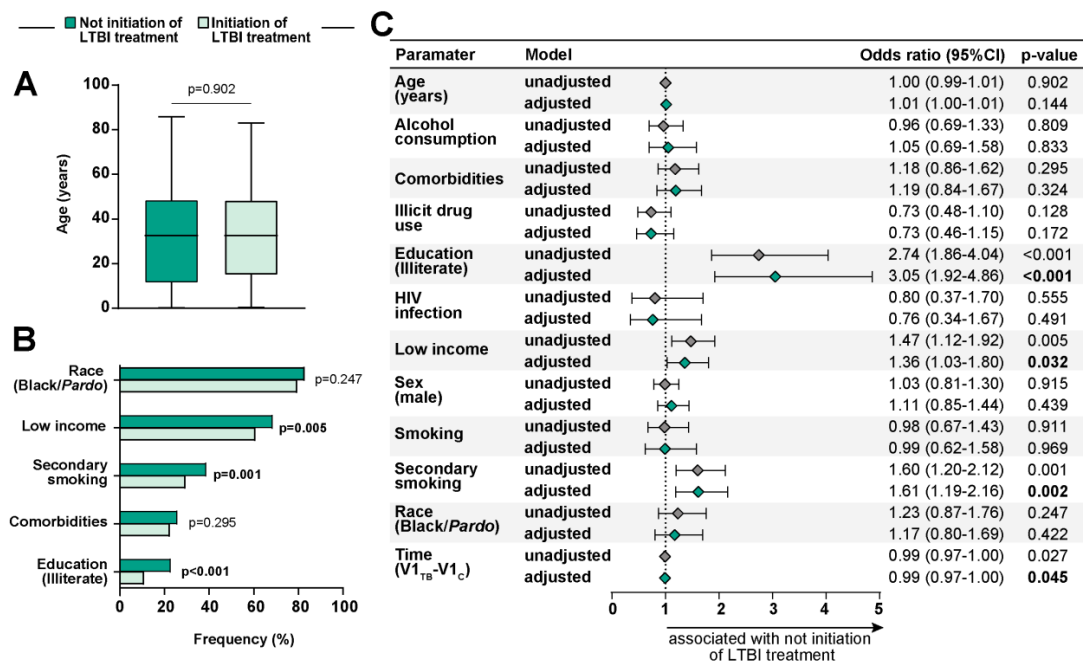
102 **Supplementary Figure 1. Characteristics of study participants**

103 Color map based on TB contacts grouped according to final IGRA results shows
 104 the overall characteristics of the study participants. A hierarchical clustering
 105 analysis (Ward's method) was employed to group individuals based on the overall
 106 profile of each study participant which each IGRA subgroup.

107 Alcohol abuse was defined as a CAGE score ≥ 2 points. Comorbidities: At least
 108 one comorbidity (diabetes, hypertension, cancer, chronic obstructive pulmonary
 109 /emphysema, kidney disease, heart disease, liver disease and depression

110 Abbreviations: IGRA: interferon-gamma release assay, Ind: Indeterminate,
 111 Convers: conversion, No IGRA 2: Did not perform 2nd IGRA, LTBI: latent
 112 tuberculosis infection, TB: tuberculosis. TPT: TB preventive therapy.

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115 **Supplementary Figure 2. Association between epidemiological and clinical**
 116 **characteristics and initiation of TPT**

117 **(A)** Age distribution among TB contacts who did not initiate TPT and those who
 118 initiated the TPT. Data were compared using the Mann-Whitney *U* test. **(B)**
 119 Frequency of Race/Ethnicity (black and *pardo*), income (see definition below),
 120 secondary smoking, comorbidities (see definition below) and education (illiterate)
 121 between TB contacts stratified based on initiation of TPT. Data were compared
 122 using Fisher's exact test. **(C)** Generalized estimating equations analysis to
 123 evaluate association between epidemiological and clinical characteristics and not
 124 initiation of TPT. The study population was stratified according to initiation of TPT
 125 (not initiation of TPT and initiation of the TPT, see Supplementary Table 2 for
 126 detailed univariate comparisons). A multivariable analysis (see Methods for details)
 127 was employed with each variable individually (unadjusted) and variables (Panels A
 128 and **C**) were included in a multivariable model (adjusted). In all the comparisons,
 129 significant p-values are shown in bold-type font.

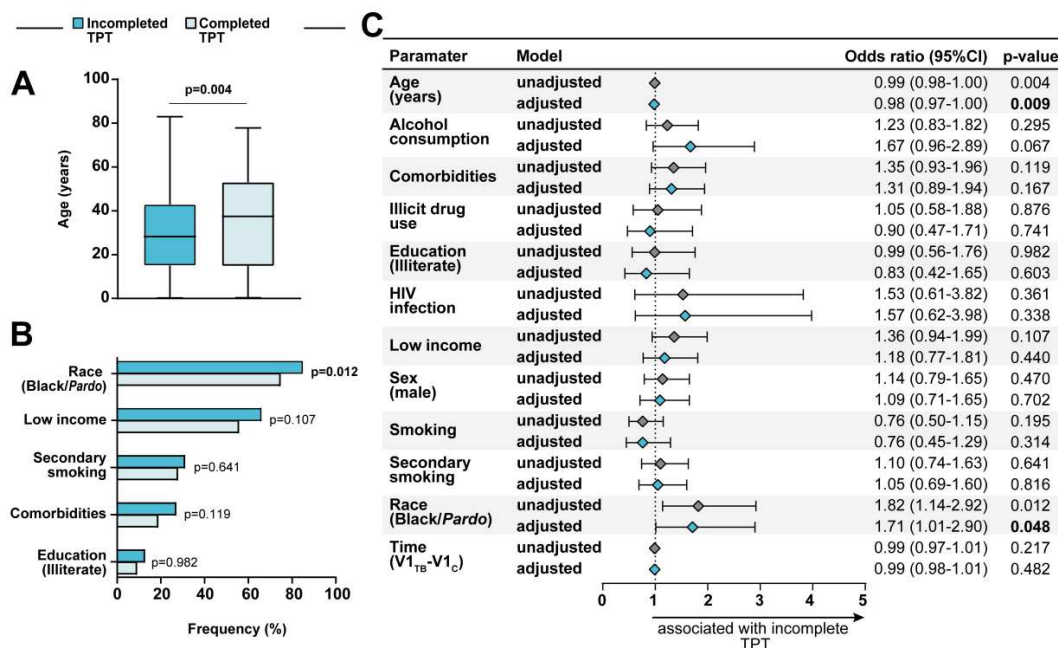
130 Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
131 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
132 and depression).

133 Low income: without income/equal or less than a minimum wage (reference: more
134 than a minimum wage)

135 Race (Black/*Pardo*) reference: White, Asian, Indian.

136 Abbreviations: 95%CI: 95% confidence interval. Time (V1TB-V1C): time (in weeks)
137 difference between the visit 1 of the TB case and the visit 1 of the contact. TPT: TB
138 preventive therapy.

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141 **Supplementary Figure 3. Association between epidemiological and clinical**
 142 **characteristics and completeness of the TB preventive therapy**

143 **(A)** Age distribution among those who did not complete the TPT and who complete
 144 the TPT. Data were compared using the Mann-Whitney *U* test. **(B)** Frequency of
 145 Race/Ethnicity (black and *pardo*), income (see definition below), secondary
 146 smoking, comorbidities (see definition below) and education (illiterate) between TB
 147 contacts stratified based completeness of the TPT (complete vs. incomplete). Data
 148 were compared using Fisher's exact test. **(C)** Generalized estimating equations
 149 analysis to evaluate association between epidemiological and clinical
 150 characteristics and who did not complete the TPT and who complete the TPT. The
 151 study population was stratified according to complete TPT in the LTBI cascade
 152 (incomplete TPT vs. complete cascade of care, see Supplementary Table 3 for
 153 detailed univariate comparisons). A multivariable analysis (see Methods for details)
 154 was employed with each variable individually (unadjusted) and variables (panels A

155 and **C**) were included in a multivariable model (adjusted). In all the comparisons,
156 significant p-values are shown in bold-type font.

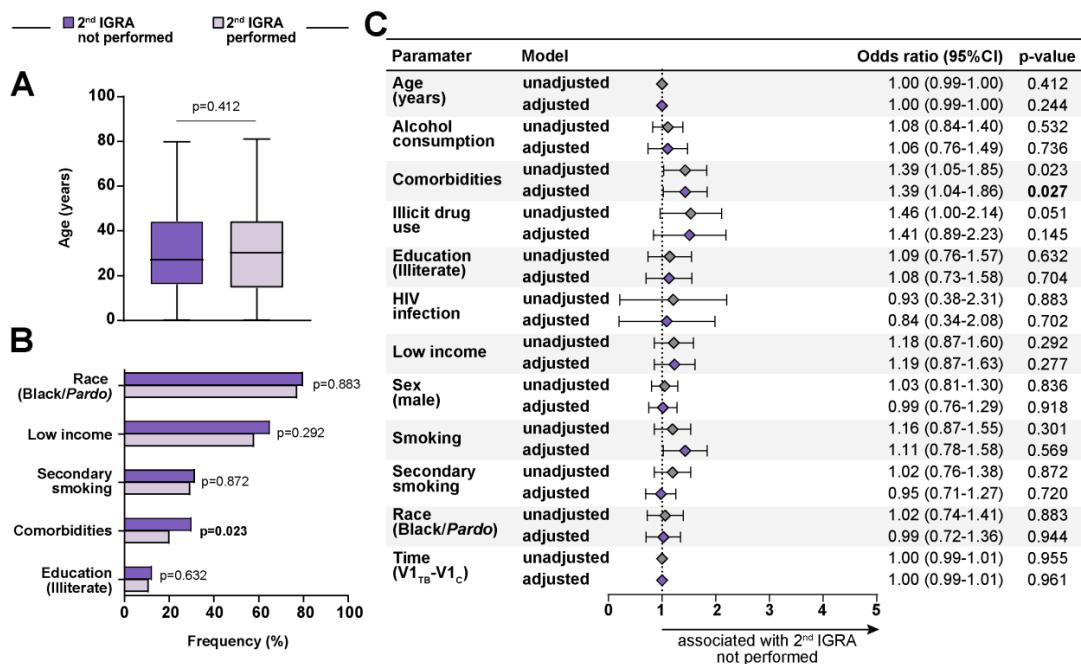
157 Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
158 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
159 and depression).

160 Low income: without income/equal or less than a minimum wage (reference: more
161 than a minimum wage)

162 Race (Black/*Pardo*) reference: White, Asian, Indian.

163 Abbreviations: 95%CI: 95% confidence interval. Time ($V1_{TB}-V1_C$): time (in weeks)
164 difference between the visit 1 of the TB case and the visit 1 of the contact. TPT: TB
165 preventive therapy.

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168 **Supplementary Figure 4. Association between epidemiological and clinical**169 **characteristics and performing the 2nd IGRA test at month 6 when indicated.**170 **(A)** Age distribution among those who performed the 2nd IGRA and those not171 performed the 2nd IGRA. Data were compared using the Mann-Whitney *U* test. **(B)**172 Frequency of Race/Ethnicity (black and *pardo*), income (see definition below),

173 secondary smoking, comorbidities (see definition below) and education (illiterate)

174 between TB contacts stratified based on performing the 2nd IGRA. Data were175 compared using the Fisher's exact test. **(C)** Generalized estimating equations

176 analysis to evaluate association between epidemiological and clinical

177 characteristics and losses in the LTBI cascade of care. The study population was

178 stratified according to perform 2nd IGRA (2nd IGRA not performed and 2nd IGRA

179 performed, see Supplementary Table 3 for detailed univariate comparisons). A

180 multivariable analysis (see Methods for details) was employed with each variable

181 individually (unadjusted) and variables (panels A and C) were included in a

182 multivariable model (adjusted). In all the comparisons, significant p-values are
183 shown in bold-type font.

184 Comorbidities: At least one comorbidity (diabetes, hypertension, cancer, chronic
185 obstructive pulmonary /emphysema, kidney disease, heart disease, liver disease
186 and depression).

187 Low income: without income/equal or less than a minimum wage (reference: more
188 than a minimum wage)

189 Race (Black/*Pardo*) reference: White, Asian, Indian.

190 Abbreviations: 95%CI: 95% confidence interval. Time (V1TB-V1C): time (in weeks)
191 difference between the visit 1 of the TB case and the visit 1 of the contact.