



Supporting Information for

Spatial Scale of Tuberculosis transmission in Lima, Peru

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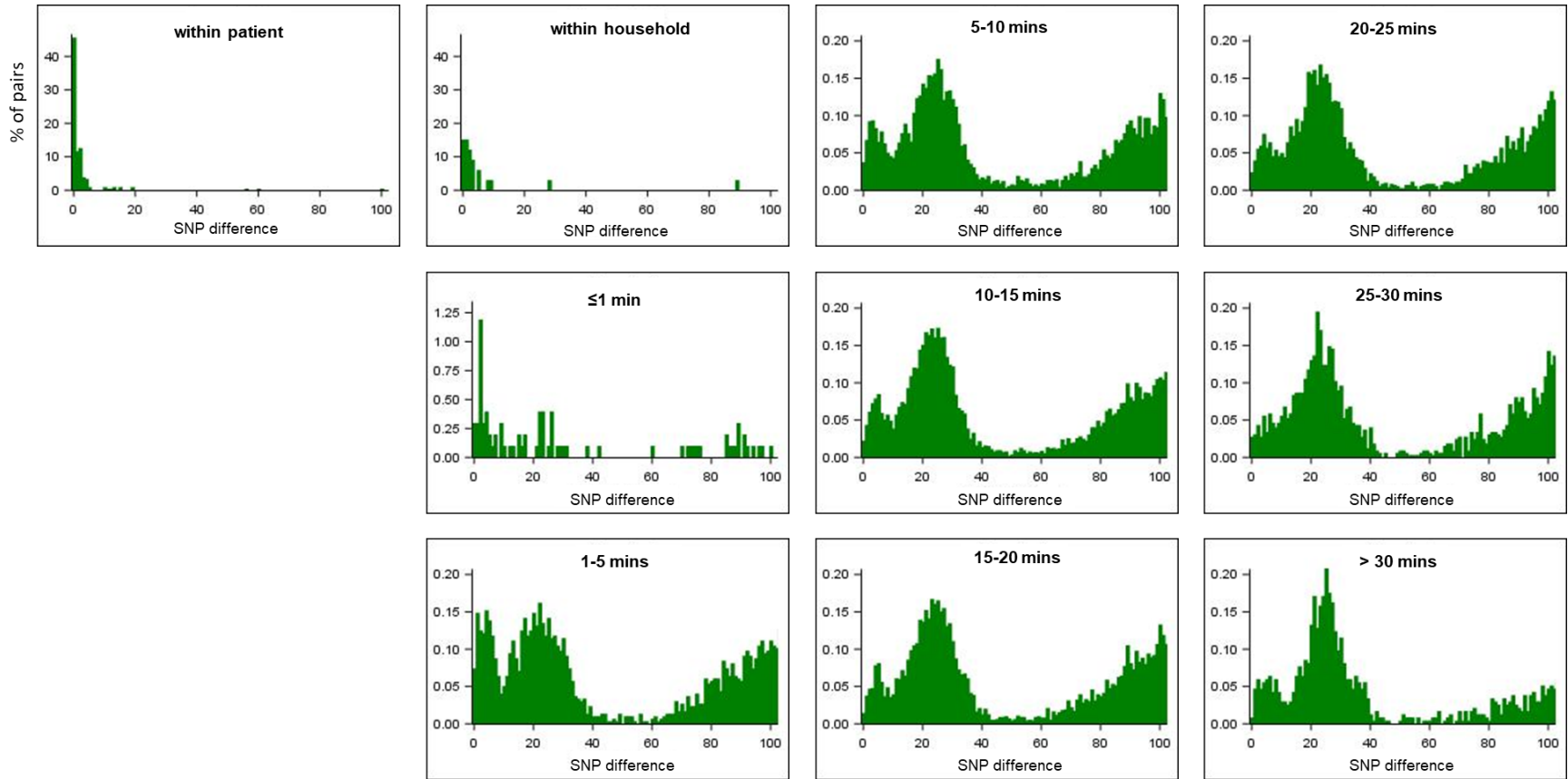
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A.



B.

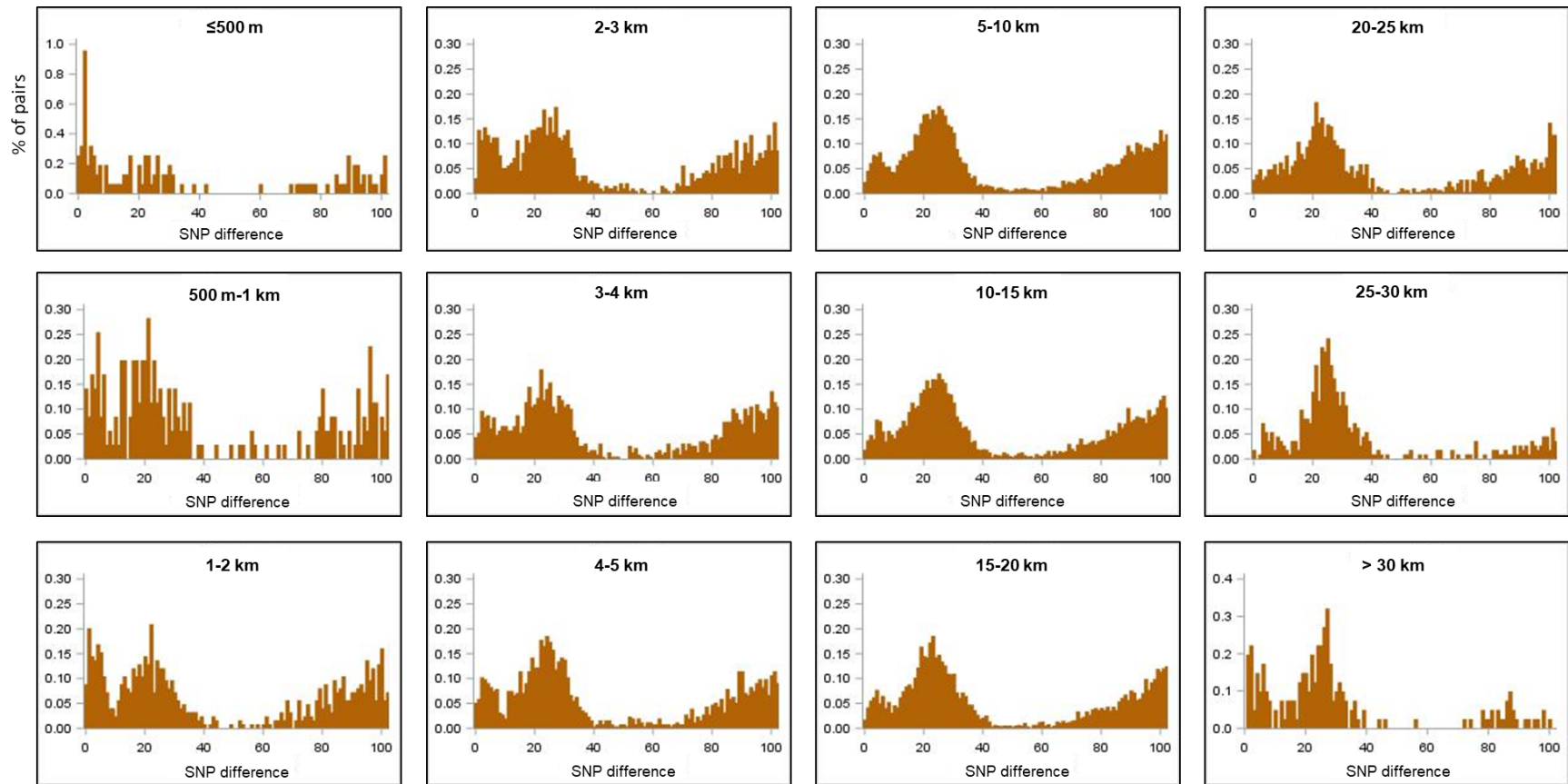
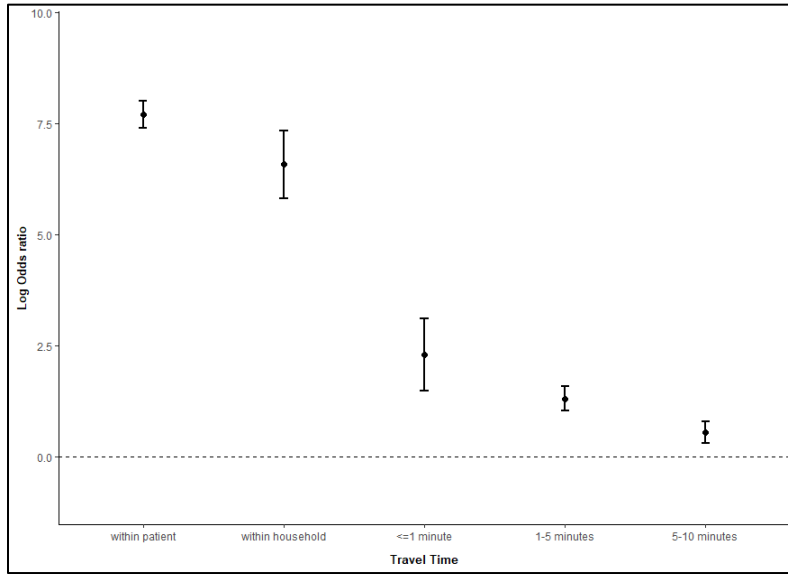
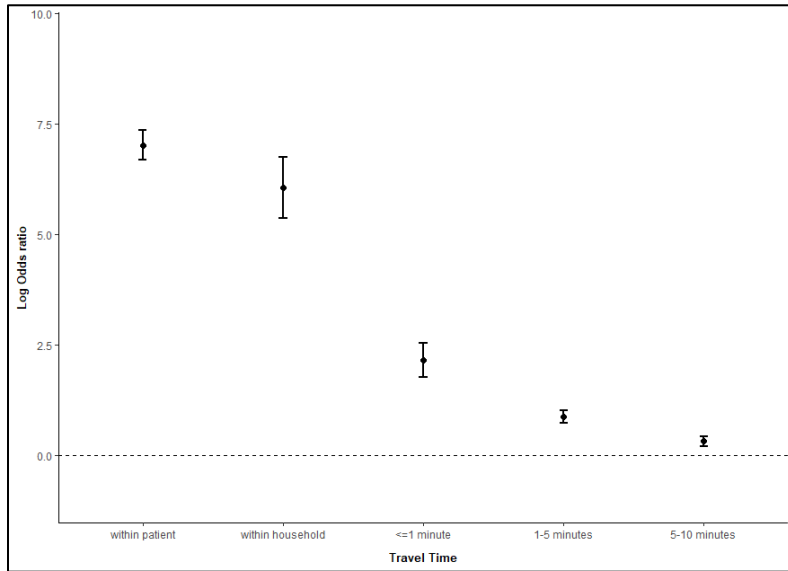


Fig. S1. Distributions of pairwise-SNP differences stratified by geographical proximity among drug-resistant isolates. (A) Using travel time in minutes (zoom between 0 and 100 SNP differences) and (B) using distances in kilometer (zoom between 0 and 100 SNP differences). Abbreviations: %, percentage; SNP, single-nucleotide polymorphism.

A.



B.



C.

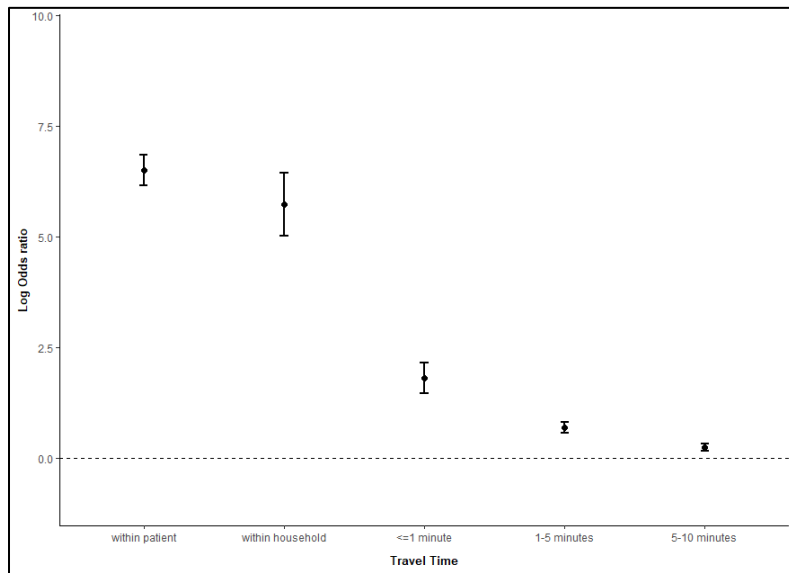


Fig. S2. Associations between pairwise geographical proximity (travel time between the places of residence) and SNP differences among drug-resistant isolates using pairs located 10 or more minutes apart as the reference category, measuring at a log odd ratio scale. (A) ≤ 1 SNP difference vs. > 1 SNP difference. (B) ≤ 5 SNP difference vs. > 5 SNP difference, and (C) ≤ 10 SNP difference vs. > 10 SNP difference. Error bars are 95% confidence intervals.

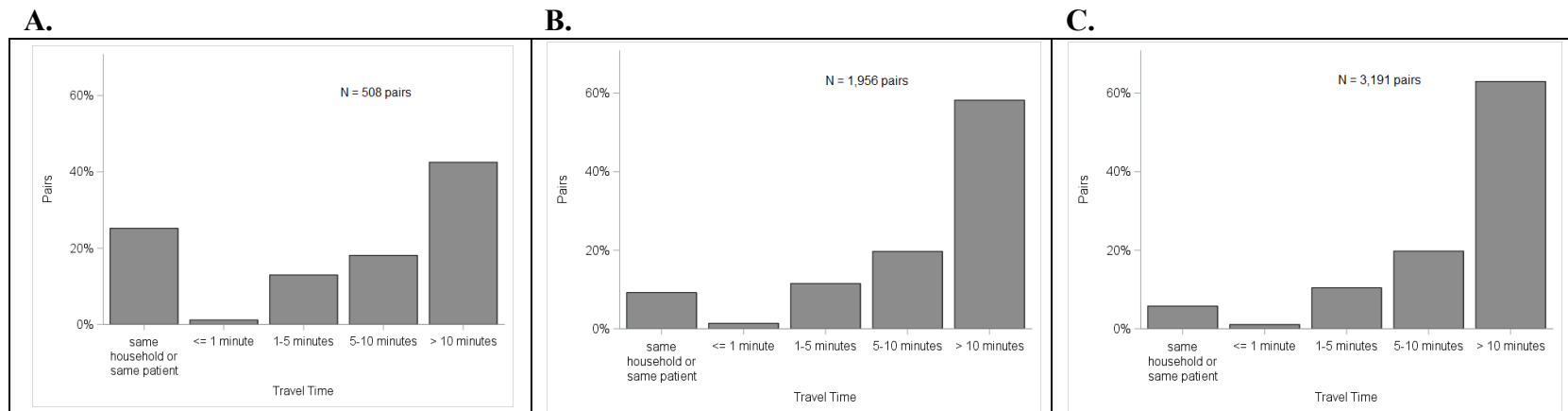


Fig. S3. Histograms by travel time for drug-resistant pairs with (A) ≤ 1 SNP difference, (B) ≤ 5 SNP difference, and (C) ≤ 10 SNP difference.

Table S1. Distribution of pairs across different spatial scales and different SNP different SNP cutoffs.

A. 1 SNP as the cutoff

	within patient	within household	≤1 min	1-5 mins	5-10 mins	> 10 mins	Total
≤ 1 SNP	167	77	30	138	163	440	1,015
%	55.85	40.31	0.54	0.08	0.03	0.02	
> 1 SNP	132	114	5,493	174,305	535,212	2,259,608	2,974,864
%	44.15	59.69	99.46	99.92	99.97	99.98	
Total	299	191	5,523	174,443	535,375	2,260,048	2,975,879

B. 5 SNPs as the cutoff

	within patient	within household	≤1 min	1-5 mins	5-10 mins	> 10 mins	Total
≤ 5 SNPs	230	108	83	494	870	2,847	4,632
%	76.92	56.54	1.5	0.28	0.16	0.13	
> 5 SNPs	69	83	5,440	173,949	534,505	2,257,201	2,971,247
%	23.08	43.46	98.5	99.72	99.84	99.87	
Total	299	191	5,523	174,443	535,375	2,260,048	2,975,879

C. 10 SNPs as the cutoff

	within patient	within household	≤1 min	1-5 mins	5-10 mins	> 10 mins	Total
≤ 10 SNPs	240	117	102	773	1,574	5,373	8,179
%	80.27	61.26	1.85	0.44	0.29	0.24	
> 10 SNPs	59	74	5,421	173,670	533,801	2,254,675	2,967,700
%	19.73	38.74	98.15	99.56	99.71	99.76	
Total	299	191	5,523	174,443	535,375	2,260,048	2,975,879

Table S2. Odd ratios and 95% confidence intervals of the associations between pairwise geographical proximity (travel time between the place of residence) and variants differences using pairs located 10 or more minutes apart as the reference category. (A) ≤ 1 SNP difference vs. > 1 SNP difference. (B) ≤ 5 SNP difference vs. > 5 SNP difference, and (C) ≤ 10 SNP difference vs. > 10 SNP difference. Error bars are 95% confidence intervals.

A. 1 SNP as the cutoff

Travel Time	Odd ratio	95% CIs	
within patient	6497.03	5077.12	8314.86
within household	3468.58	2559.84	4700.39
≤ 1 minute	28.05	19.36	40.64
1-5 minutes	4.07	3.36	4.92
5-10 minutes	1.56	1.31	1.87

B. 5 SNPs as the cutoff

Travel Time	Odd ratio	95% CIs	
within patient	2642.82	2014.45	3467.19
within household	1031.63	773.17	1376.64
≤ 1 minute	12.10	9.71	15.07
1-5 minutes	2.25	2.05	2.48
5-10 minutes	1.29	1.20	1.39

C. 10 SNPs as the cutoff

Travel Time	Odd ratio	95% CIs	
within patient	1707.01	1282.29	2272.19
within household	663.47	495.29	888.76
≤ 1 minute	7.90	6.48	9.63
1-5 minutes	1.87	1.73	2.01
5-10 minutes	1.24	1.17	1.31