An analysis of the ambulatory response to traffic collisions in Rawalpindi-Islamabad using rescue 1122 data

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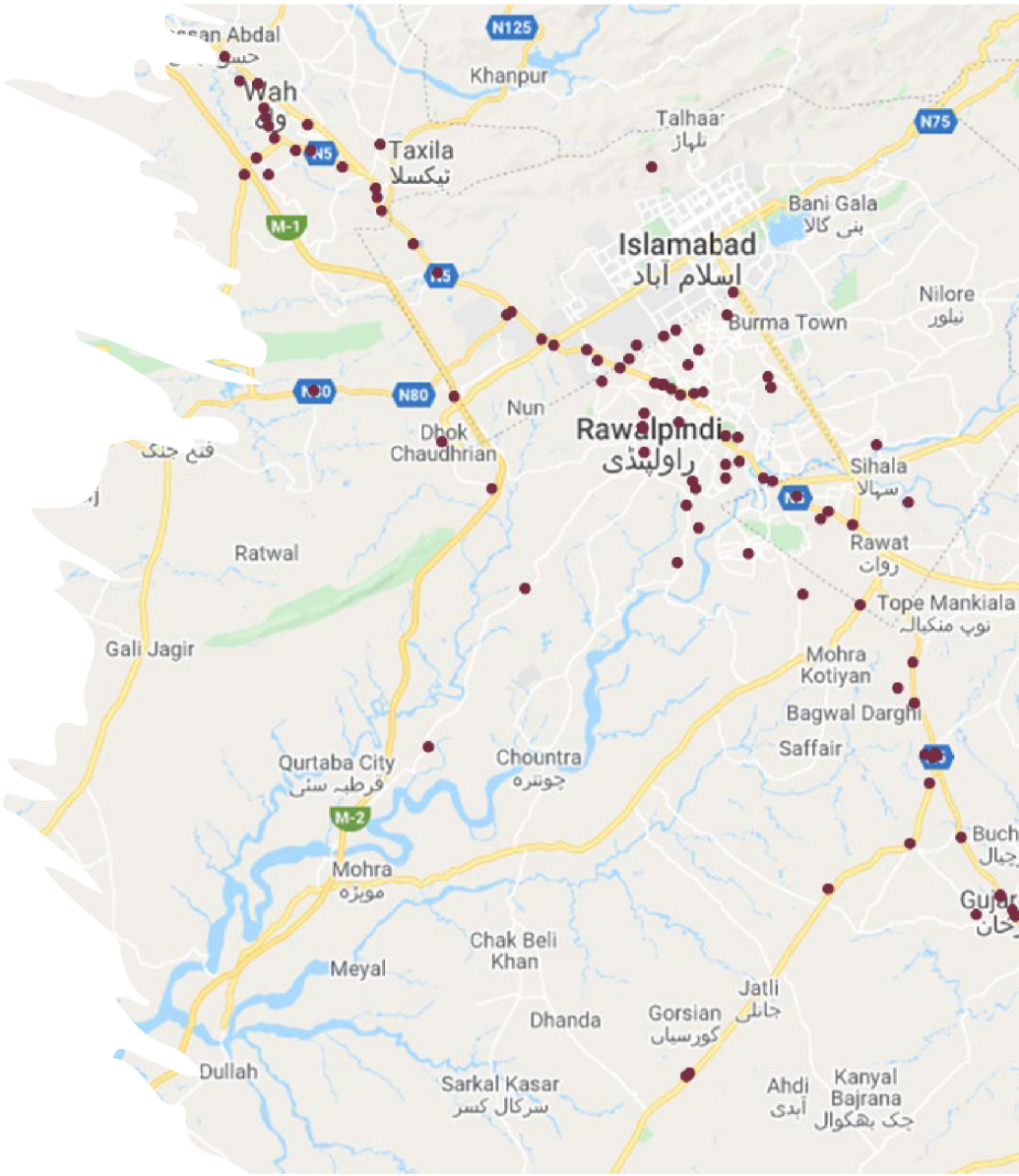
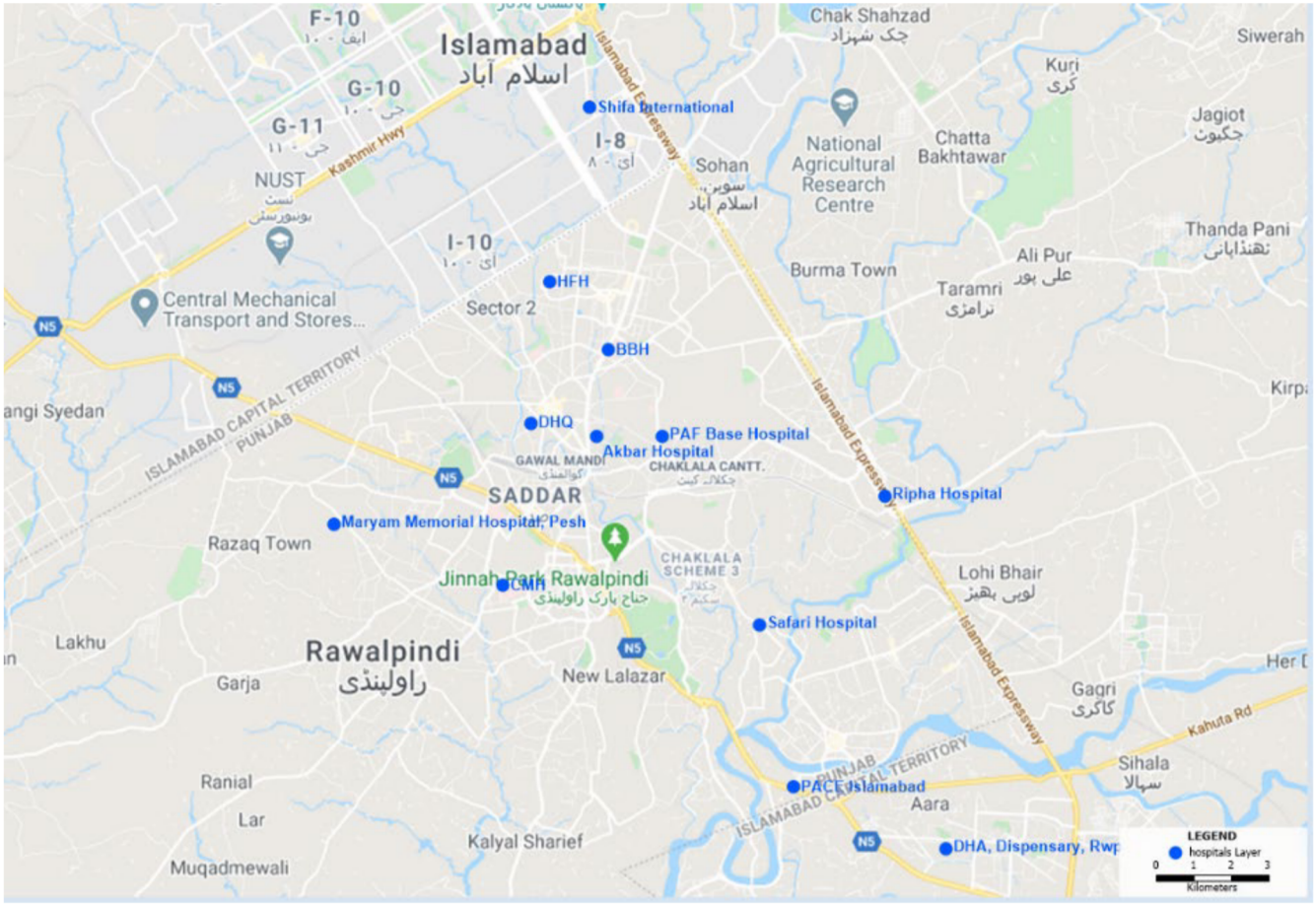


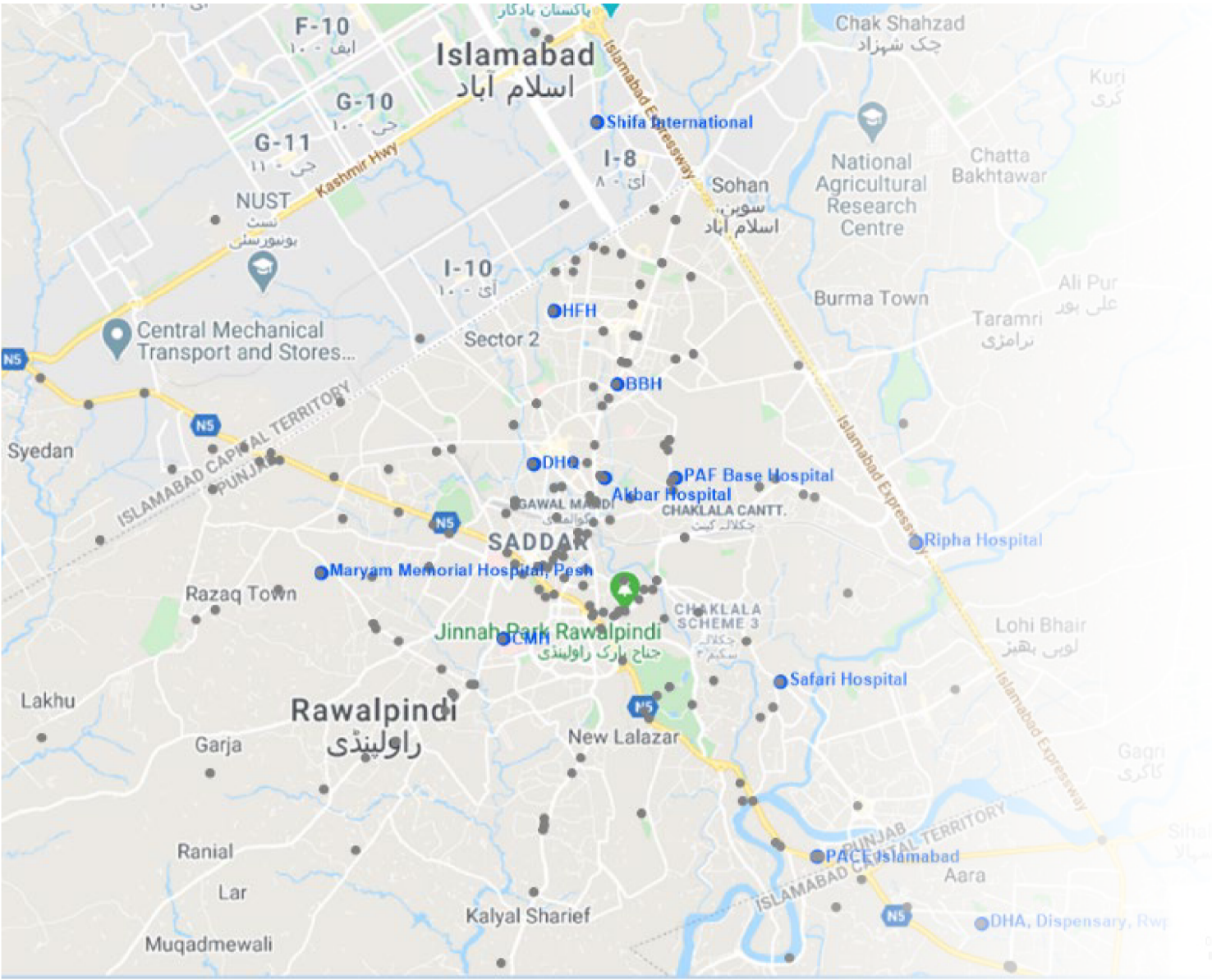
NUST engineering students

Objectives

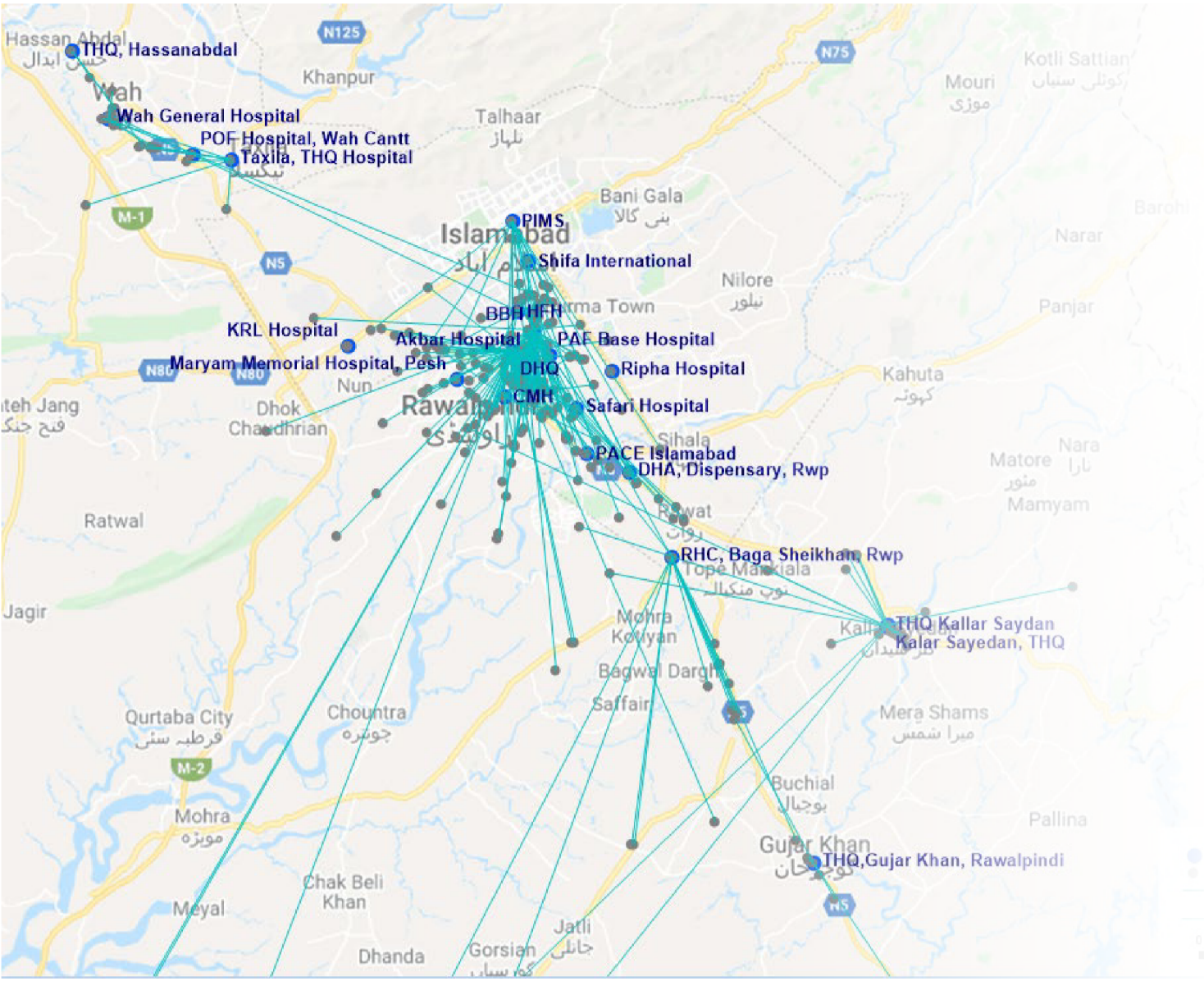
- To review and analyze the RTA data of the Rawalpindi region (2018-19) from Rescue 1122 and then identify the location of black spots.
- To present a systematic analysis of Rescue 1122 calls made in the Greater Rawalpindi Area after a traffic collision.
- Identifying avenues in improving Response time in the light of spatial data analysis.

Healthcare facilities





- Sample collisions

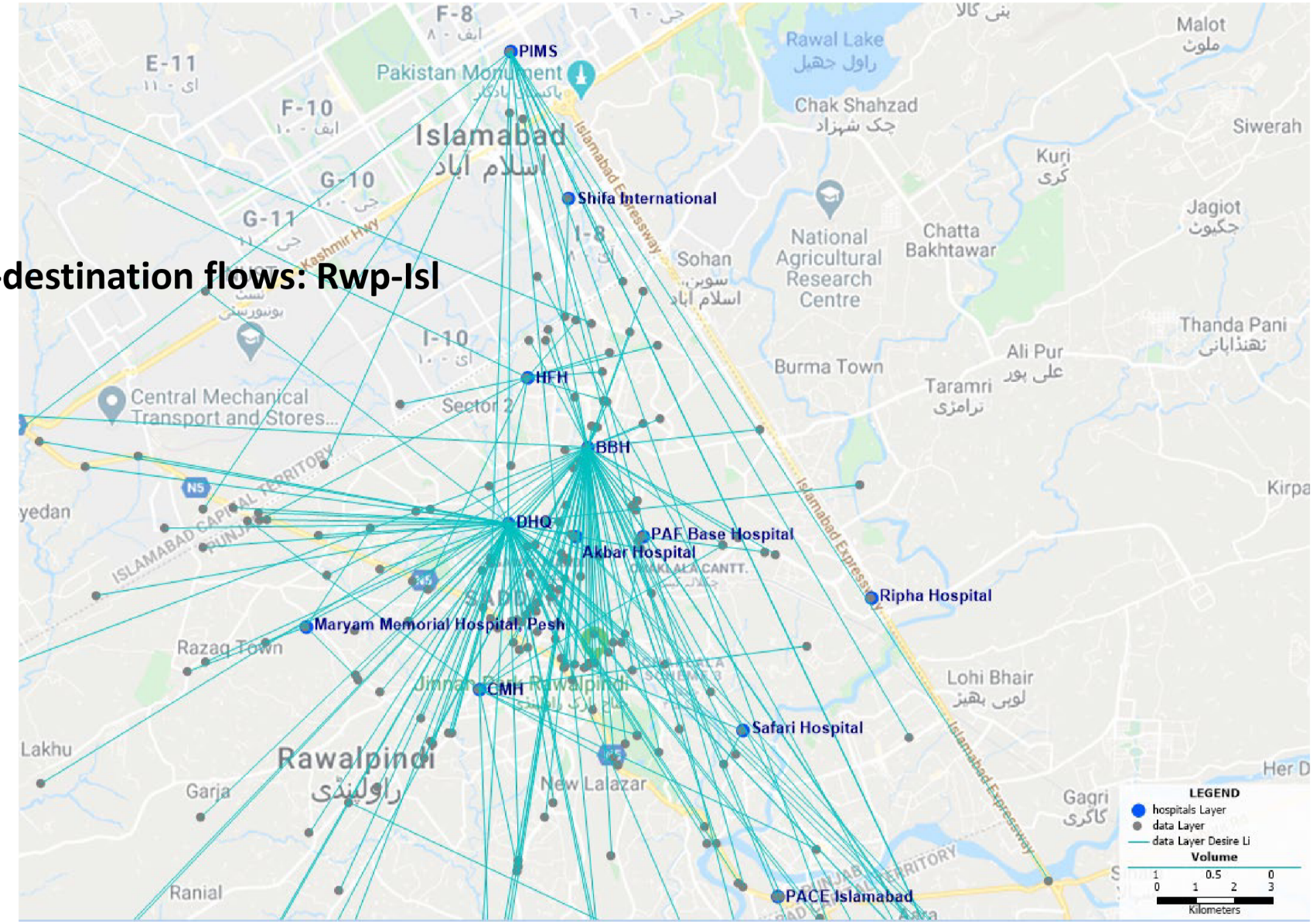


Origin-destination flows – regional

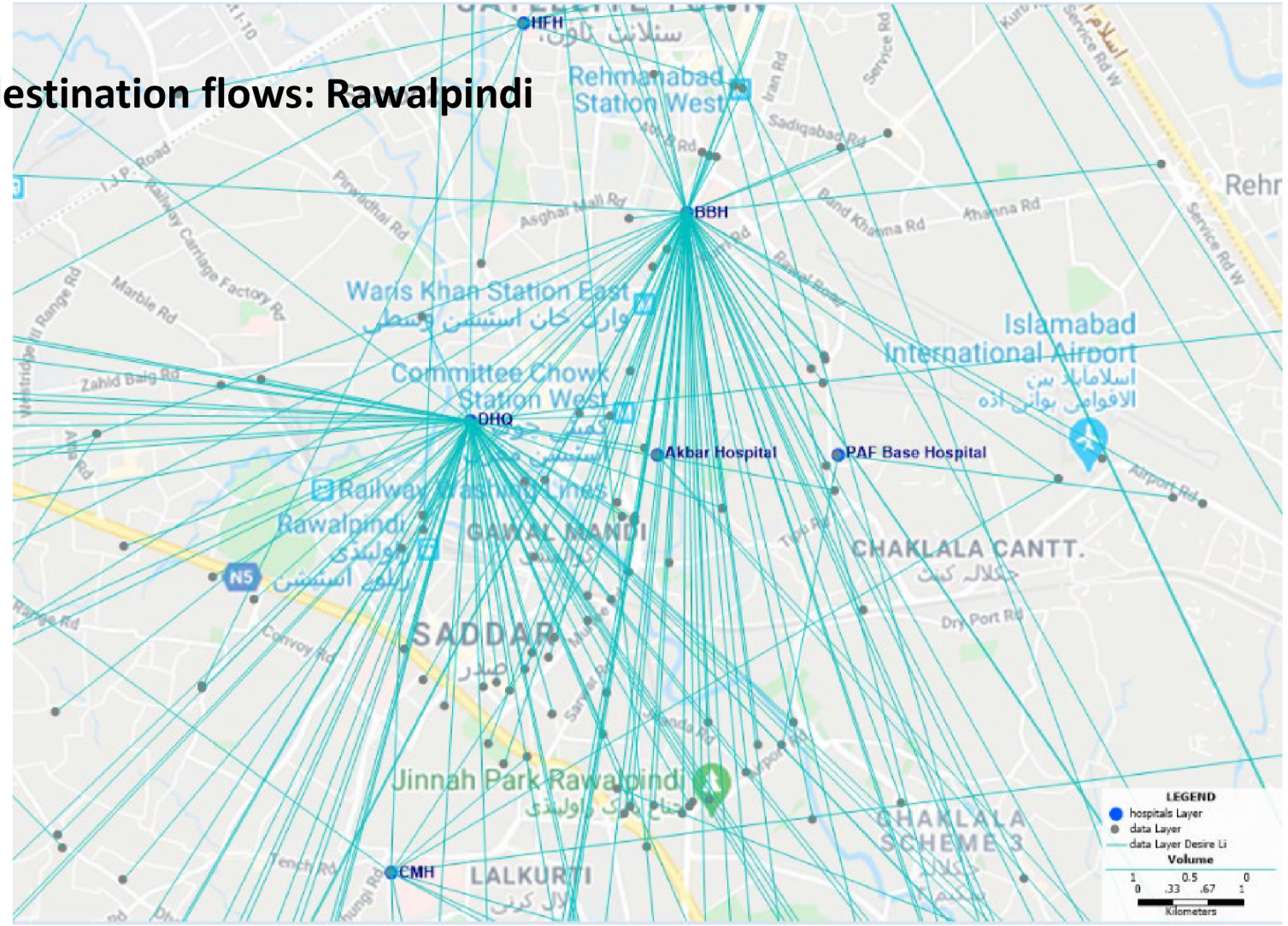
Spatial analysis conducted with Maptitude

Maptitude
Mapping Software

Origin-destination flows: Rwp-Isl



Origin-destination flows: Rawalpindi



Bicycles

About 58% accidents in which people expired according to data set had at least 1 or more bikes involved in the crash.

BikesInvolved	expiry status no	yes	Total
0	2,575 25.73	46 42.59	2,621 25.91
1	6,372 63.68	58 53.70	6,430 63.57
2	1,057 10.56	4 3.70	1,061 10.49
3	2 0.02	0 0.00	2 0.02
10	1 0.01	0 0.00	1 0.01
Total	10,007 100.00	108 100.00	10,115 100.00

Passenger vans

86% of the total accidents did not involve a van.

Whereas, about **29% of the total fatalities** occurred at sites where **at least 1 or more vans were involved**

VansInvolved	expiry status no	yes	Total
0	8,646 86.40	77 71.30	8,723 86.24
1	1,324 13.23	30 27.78	1,354 13.39
2	35 0.35	1 0.93	36 0.36
3	2 0.02	0 0.00	2 0.02
Total	10,007 100.00	108 100.00	10,115 100.00

Trucks are deadly

. Only **3% of crashes** had one or more trucks involved out of 10115 RTAs, still, they resulted **in 42 of the 108 fatalities**

TrucksInvolved	expiry status no	yes	Total
0	9,708 97.01	66 61.11	9,774 96.63
1	274 2.74	40 37.04	314 3.10
2	25 0.25	2 1.85	27 0.27
Total	10,007 100.00	108 100.00	10,115 100.00