MERGING DATA, SPEED MANAGMENT FOCUS BOGOTÁ

Buenos Aires / 2019

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DATABASES AVAILABLE FOR CRASHES, INJURIES AND DEATHS

- Geographic information system for road crashes (SIGAT)
- Source: Police crash report (IPAT)
- Contains record of crashes, injuries and deaths due to road crashes
- Relational database (Tables) and geo-referenced databases (GIS)

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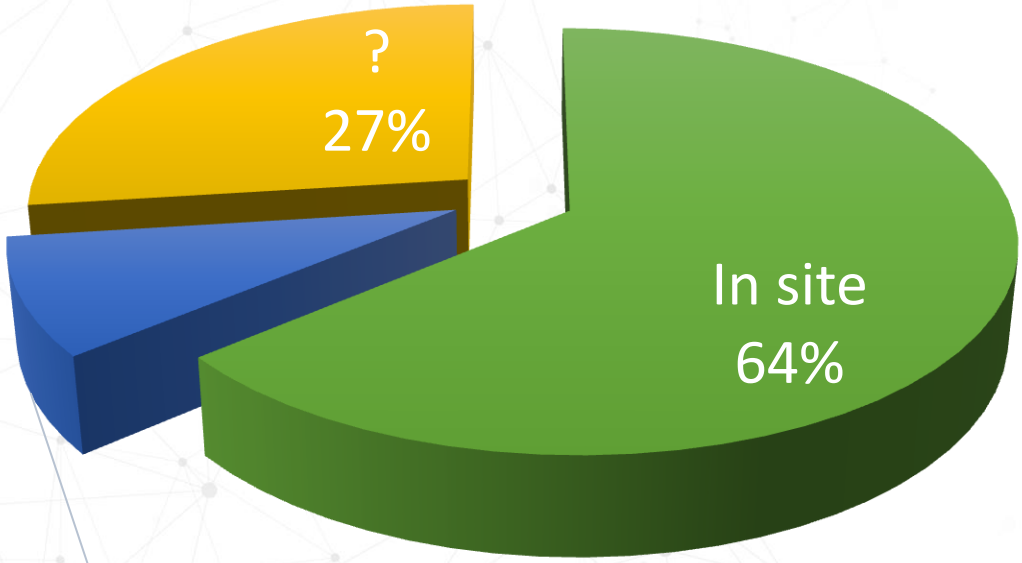
WHY THE NEED FOR MERGING DATA?



Hospital deaths not reported to traffic police

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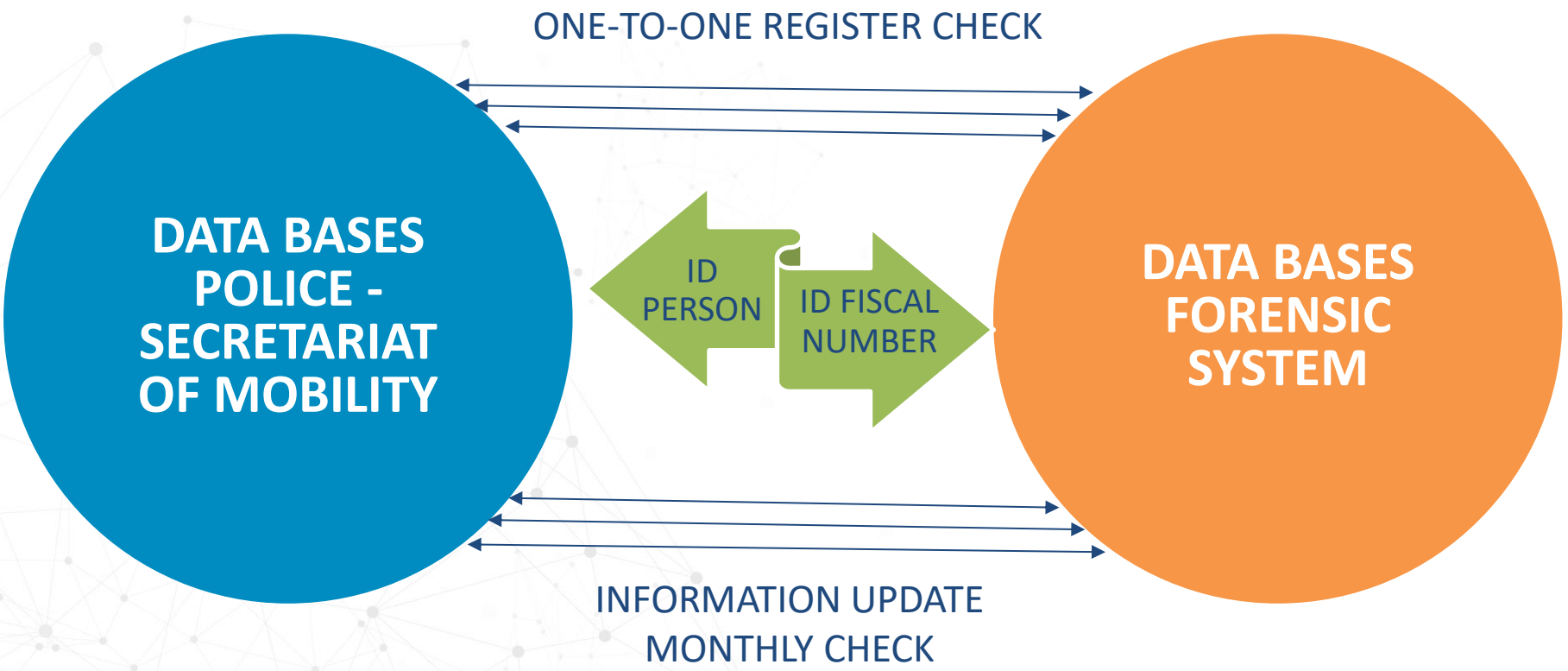
SOLUTION: MERGING DATA WITH THE FORENSIC SYSTEM

- Information system for deaths and injuries due to external causes (SIRDEC and SICLICO)
- Source of information: Forensic registry of necropsies and medical-legal valuations
- Contains record of injuries and deaths due to road crashes (includes all transportation modes)
- Relational database (Tables)

DEATHS DATBASE LINKING



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DEATHS DATBASE LINKING (MONTHLY COMPARISON 2018)

SIGAT
514 Deaths

SIRDEC
522 Deaths

DIFFERENCES

- **Criteria**

⑩ There are cases in which the Police and the forensic criteria differ regarding the external cause of death and an agreement cannot be reached. So in the police system the death is registered as different external cause (homicide, accidental or suicide) and in the forensic system it is registered as transit.

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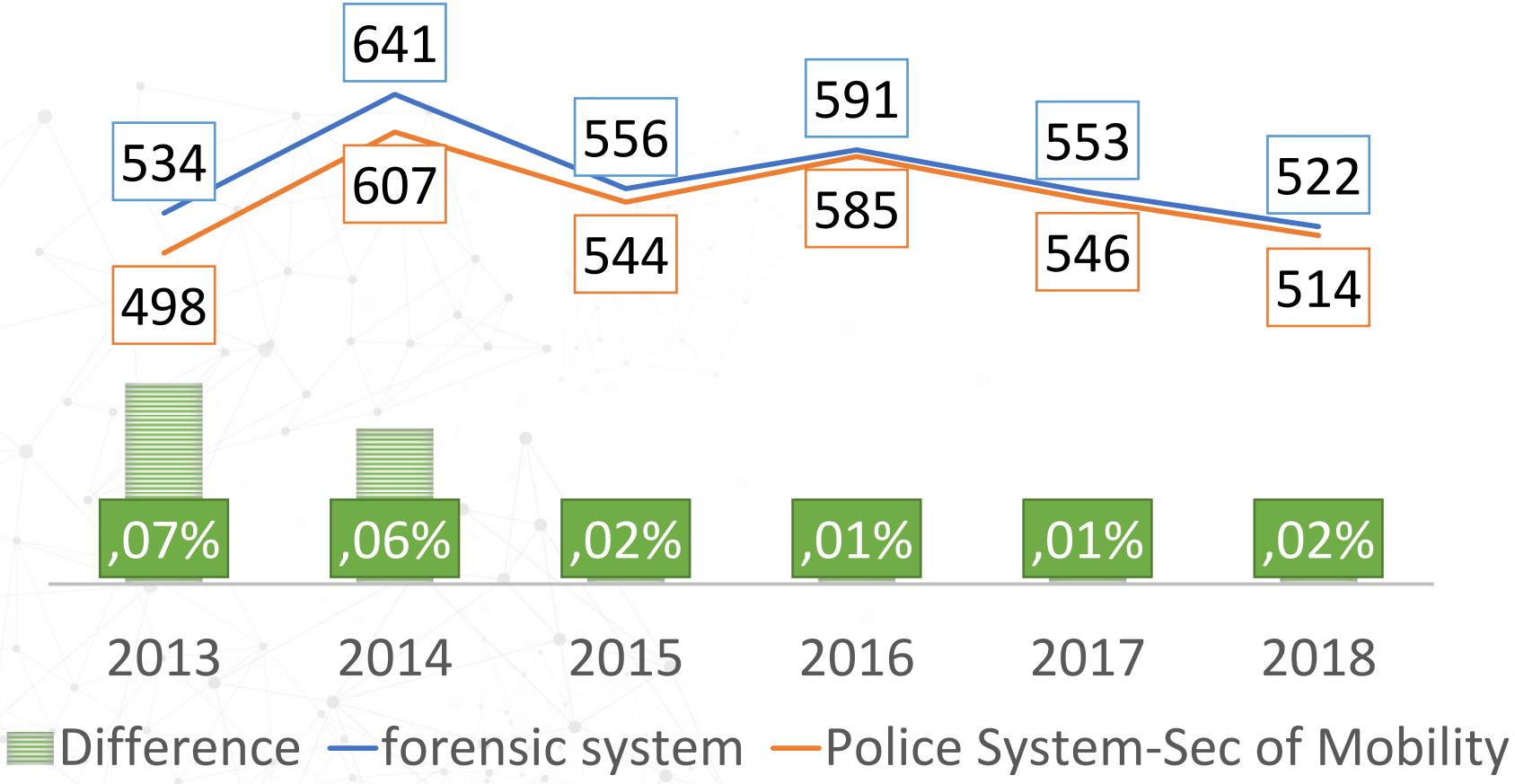

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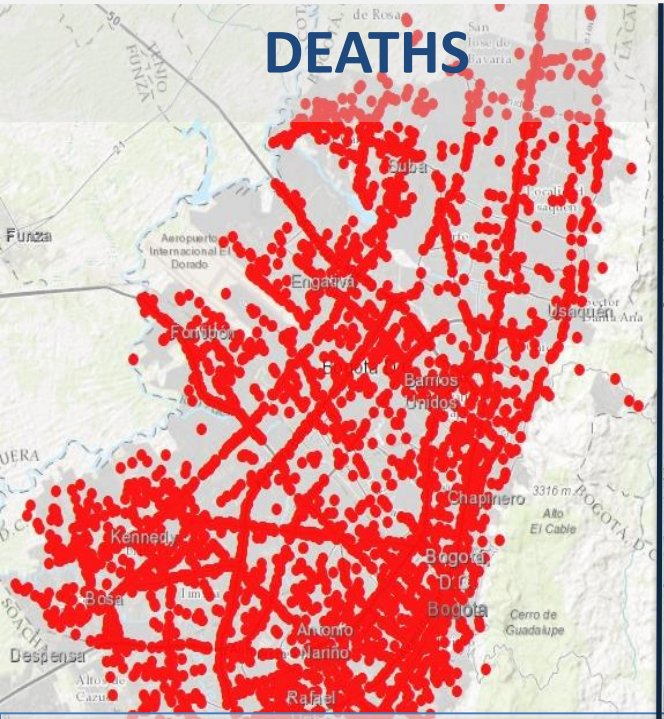
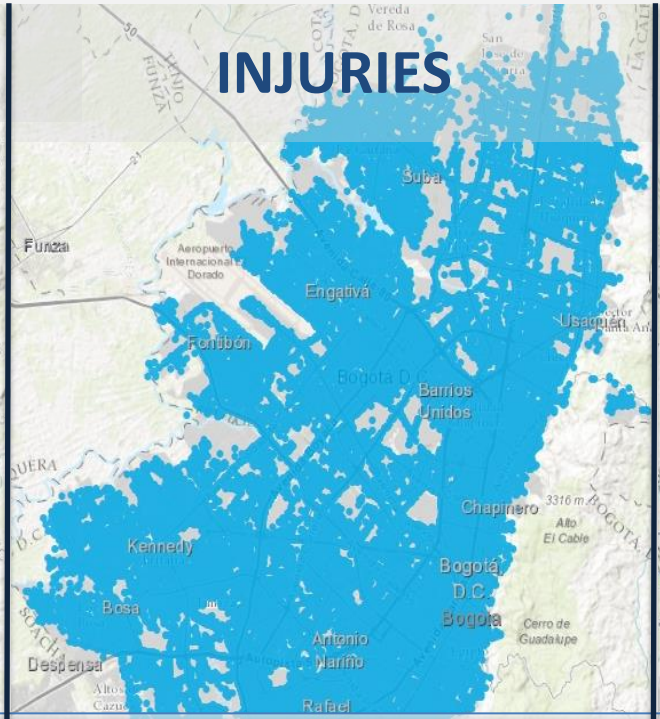
DATABASES GIS



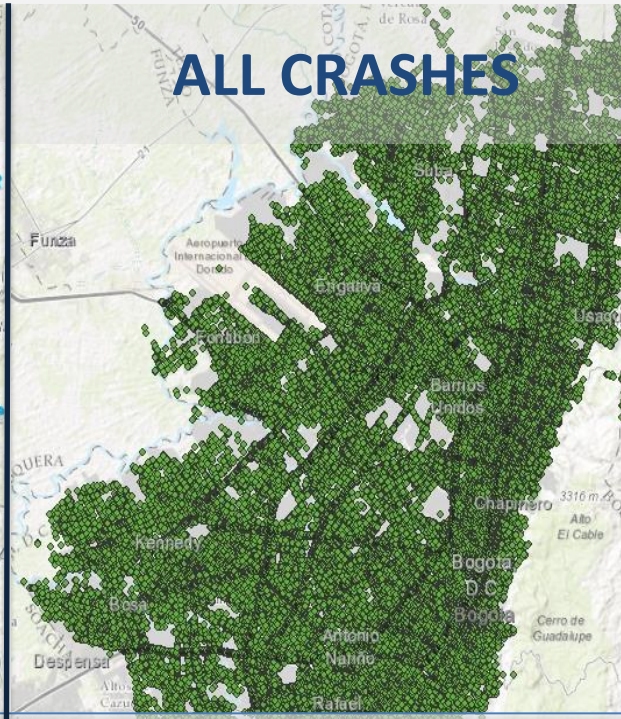
5,943 mapped records since 2007 until now

100% of deaths since 2015 are mapped



166,697 mapped records since 2007 until now

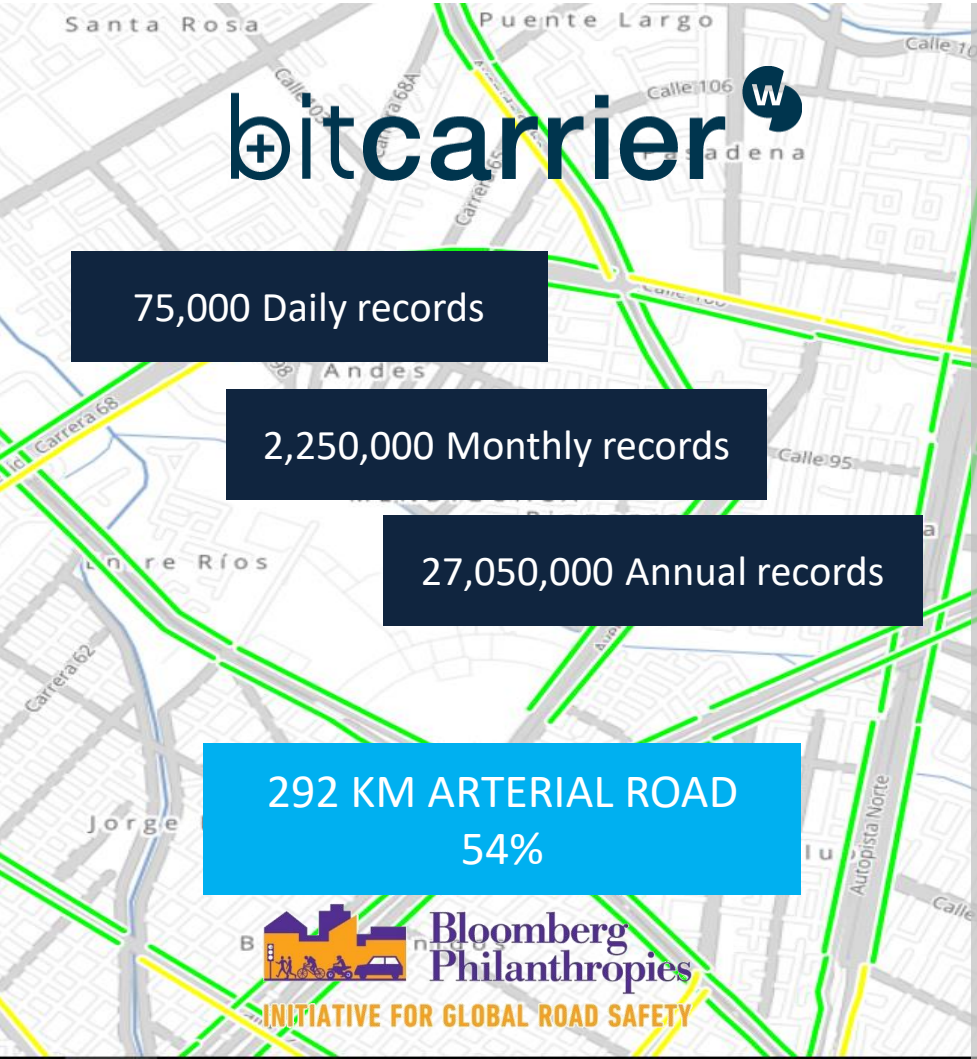
91% of the injured in 2018 are mapped



382,127 mapped records since 2007 until now

90% of crashes in 2018 are mapped

MERGING DATA WITH SPEED



bitcarrier

75,000 Daily records

2,250,000 Monthly records

27,050,000 Annual records

292 KM ARTERIAL ROAD
54%

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- Information system of real-time speed records in street sections since 2017
- Data acquisition such as speed and travel time that allow analysis and decision making.
- The system consists of 350 wifi and bluetooth sensors.
- Sensors capture public Wi-Fi and Bluetooth signals from user devices (cell phones, car Bluetooth radios, GPS, etc.)

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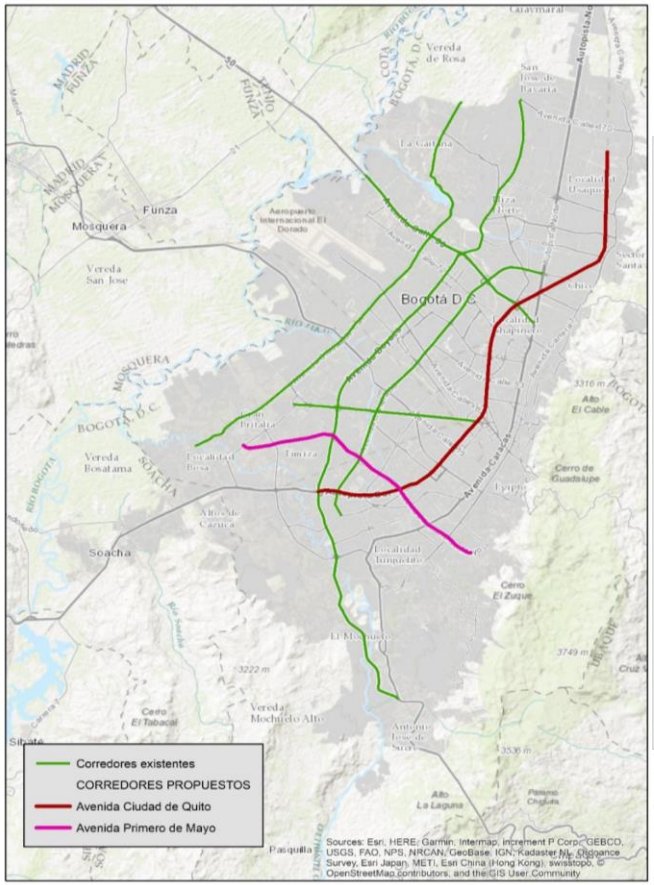
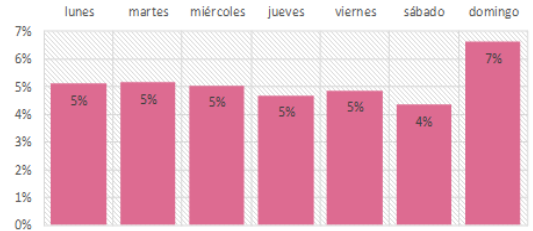
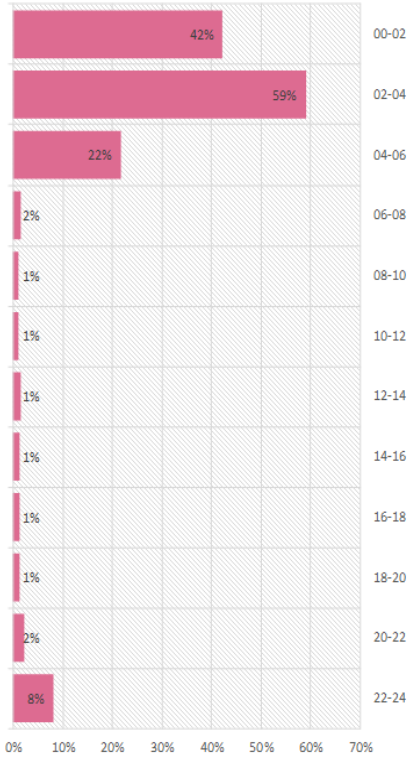




	lunes	martes	miércoles	jueves	viernes	sábado	domingo
00-02	70%	65%	54%	47%	45%	21%	23%
02-04	70%	73%	69%	68%	71%	34%	43%
04-06	20%	22%	24%	20%	19%	22%	34%
06-08	0%	1%	1%	1%	1%	2%	11%
08-10	0%	1%	1%	1%	1%	2%	3%
10-12	1%	2%	1%	1%	1%	1%	2%
12-14	1%	2%	1%	2%	1%	1%	0%
14-16	1%	1%	1%	1%	1%	1%	1%
16-18	1%	1%	1%	1%	2%	1%	3%
18-20	1%	2%	1%	1%	0%	2%	1%
20-22	2%	2%	3%	2%	3%	2%	1%
22-24	11%	8%	9%	8%	4%	6%	11%



CHALLENGES IN THE DATA LINKING

- Harmonization of concepts of deaths and injuries caused by traffic.
- Protocols for information update when there is no police report.
- Generation of information exchange protocols with other entities (habeas data, agreements, technical documents).
- Classification of injuries according to severity. Data Linking with insurance companies' data bases.
- Integrate to the analysis other sources of information that can be merged as geo-referenced tickets and road safety inspections.

THANK YOU!

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