

# **Bloomberg Initiative for Global Road Safety**

## Speed management in Salvador, BR



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# Salvador, Bahia - Brazil

// Population: **2.9M**

// Registered vehicles: **1M**

(14% Motorcycles)

// GDP: **12 Billions** (USD),

10th in Brazil

// Various speed limits

(30, 40, 60, 70, 80)





# road injury data was used to

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put RS theme  
on the agenda



identify  
priorities



facilitate  
communication



monitor  
results



reinforce  
communication

first step was to

**improve data quality**



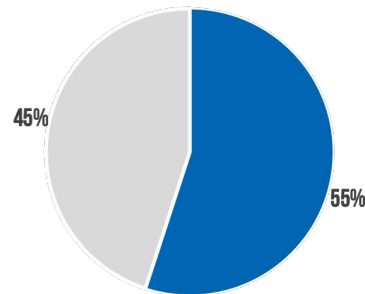
# In order to characterize the issue, it was first necessary to consolidate datasets

In 2020, only 55% of road deaths and 9% of injuries were geocoded

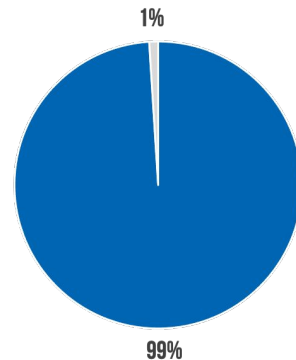
4 years of dataset (2017-2021) were consolidated and geocoded



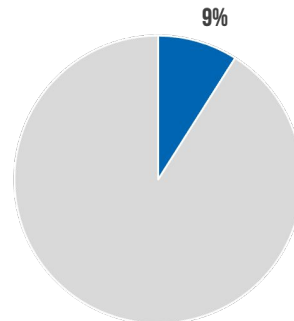
deaths: before



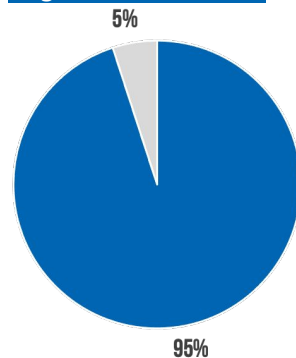
deaths: after



injuries: before



injuries: after



with data in hands, a series  
of **metrics were produced**



# deaths were concentrated on roads with high speed limits

## road deaths by speed limit

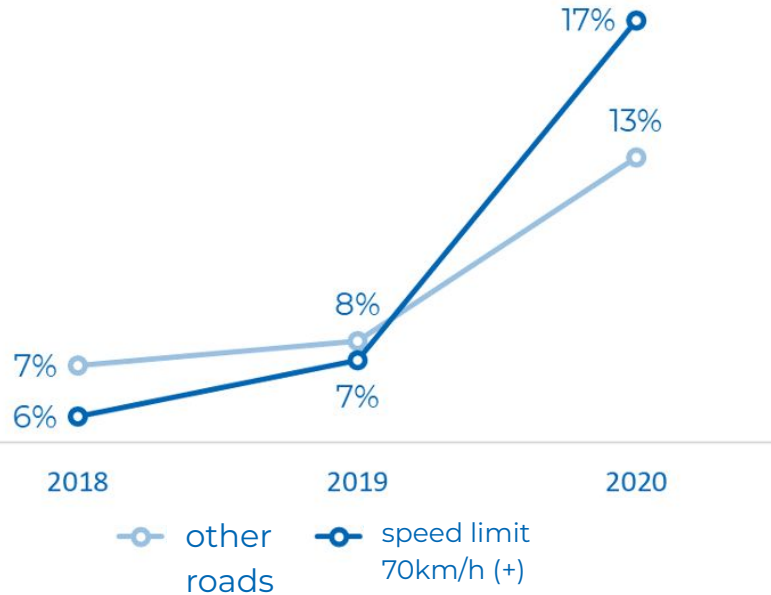


On roads with a speed limit of 70 km/h, **deaths grew by 40%**, while in the rest of the network there is a certain stability



# during the pandemic, the lethality of crashes with pedestrians almost doubled

lethality of pedestrian crashes  
(#deaths/#total victims)



the issue intensified during the pandemic, specially with **vulnerable road users on roads with high speed limits**

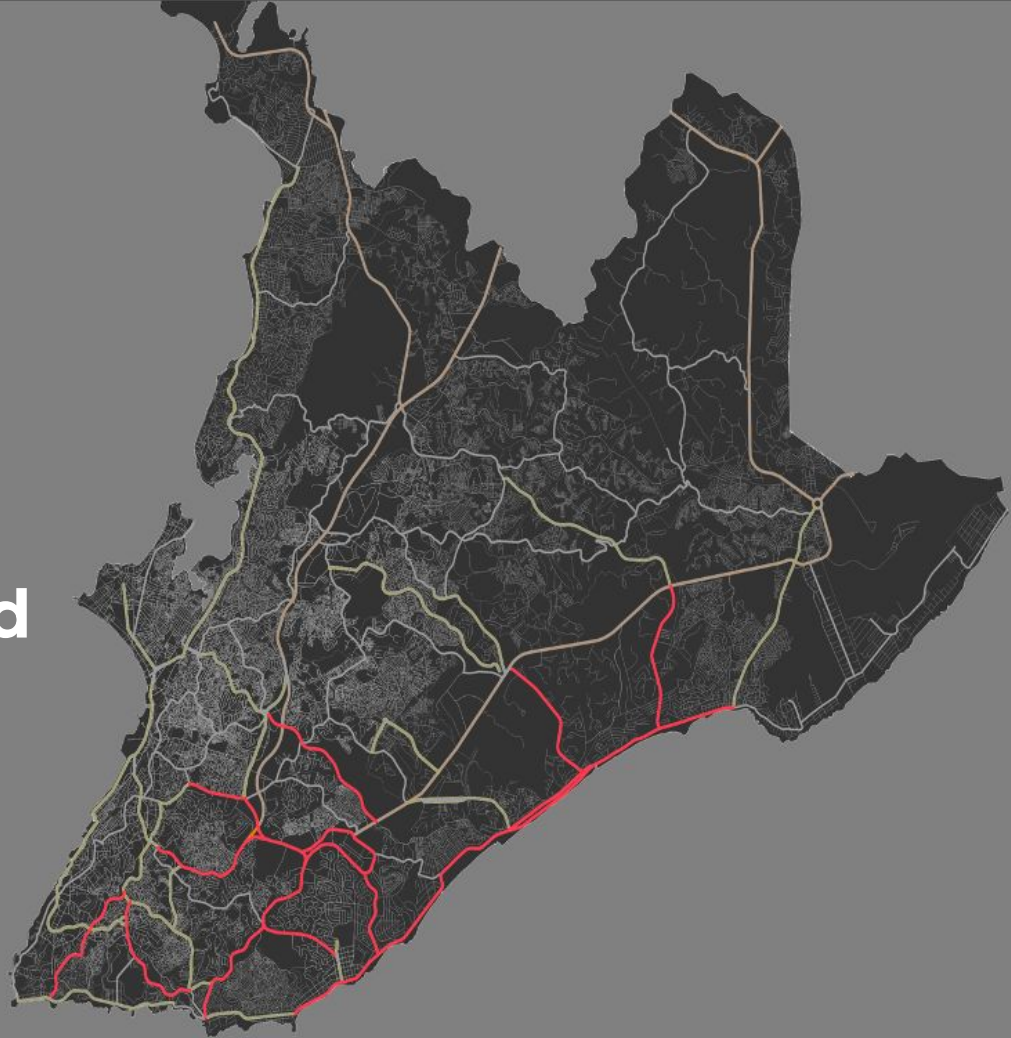
# estimated cost with road injuries was \$ 26 million USD in 2020

| severity | estimated un. cost* | # victims | estimated cost         |
|----------|---------------------|-----------|------------------------|
| death    | \$ 51,723.3         | 129       | \$ 6,672,302.2         |
| injury   | \$ 6,710.2          | 2913      | \$ 19,546,759.6        |
| total    | \$ 8,611            | 3042      | <b>\$ 26,219,061.8</b> |

\*Institute of Applied Economic Research

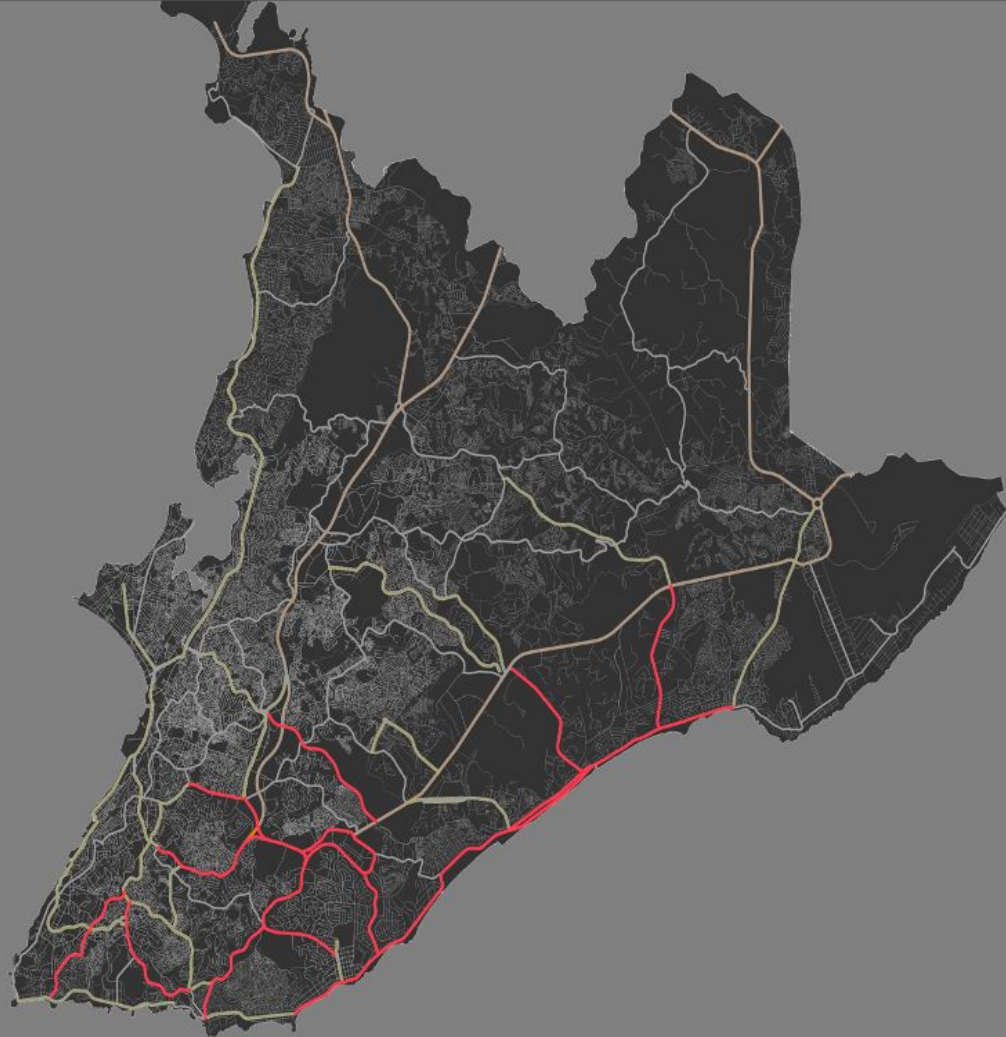
**12 arterial roads** with speed limits of 70 km/h represent only **1.4% of the network**, but in 2020, they **concentrated 12% of road deaths**

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## 70 km/h roads – RTI 2017-2020

| Ranking |          | Road name                           | # Deaths | # Injuries |
|---------|----------|-------------------------------------|----------|------------|
| Deaths  | Injuries |                                     |          |            |
| 1°      | 1°       | Antônio Carlos Magalhães            | 17       | 720        |
| 2°      | 4°       | Mário Leal Ferreira                 | 12       | 309        |
| 3°      | 2°       | Octávio Mangabeira + Rua Carimbamba | 8        | 502        |
| 4°      | 3°       | Tancredo Neves                      | 7        | 488        |
| 5°      | 5°       | Luís Eduardo Magalhães              | 4        | 193        |
| 5°      | 12°      | Orlando Gomes                       | 4        | 49         |
| 7°      | 6°       | Juracy Magalhães Júnior             | 3        | 165        |
| 8°      | 8°       | Centenário                          | 2        | 159        |
| 9°      | 7°       | Anita Garibaldi                     | 1        | 162        |
| 9°      | 9°       | Heitor Dias                         | 1        | 78         |
| 9°      | 10°      | Magalhães Neto                      | 1        | 67         |
| 12°     | 11°      | Pinto de Aguiar                     | 0        | 64         |



the results were  
**disseminated with decision  
makers** continually



**different levels** of decision making were engaged

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// Project Management

// Traffic Directorate

// Traffic Superintendent

// Mayor

**Initial priorities were based on a set of criteria**

**01)** frequency of road injuries

**02)** undergoing project implementations

**03)** incremental reductions

(70 > 60; 60 > 50; 50 > 40)

**04)** 3-month transition period of enforcement

**05)** continuous expansion

after implementation, **preliminary monitored results were used to reinforce relevance of speed management** on injury prevention

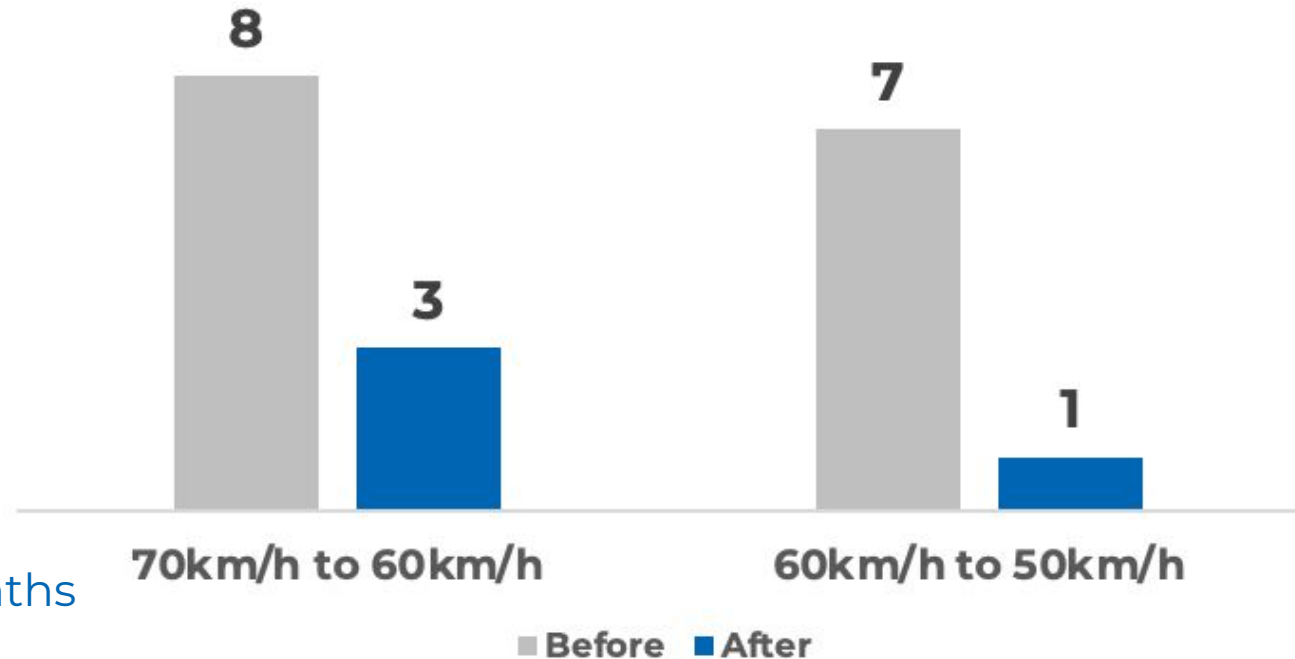


# preliminary\* results show a 63% reduction in deaths where speed limit changed from 70 to 60km/h

reduction in deaths was more pronounced in roads that changed speed limit from 60 to 50km/h

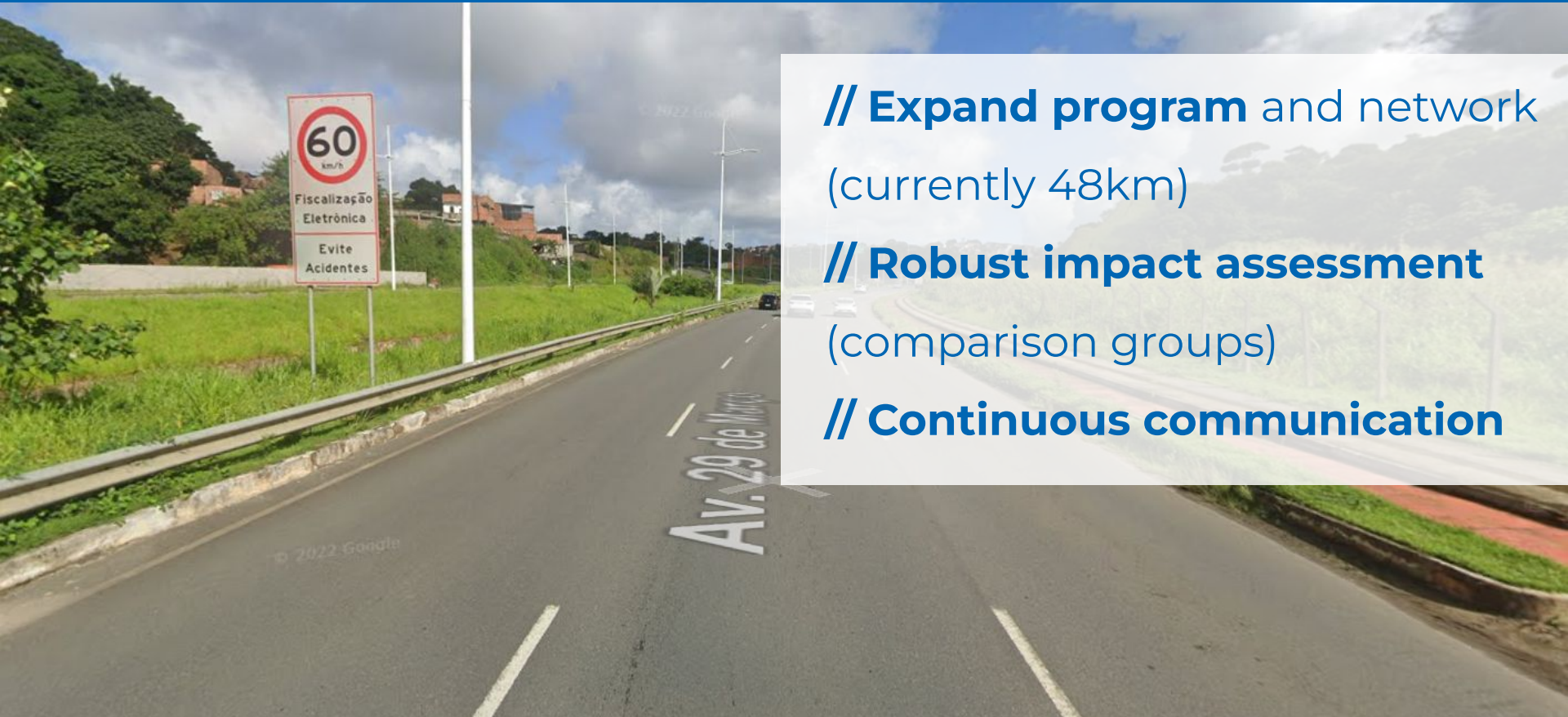
\*period of analysis: 6 months after implementation

Preliminary results - road deaths





# next steps



// **Expand program** and network  
(currently 48km)

// **Robust impact assessment**  
(comparison groups)

// **Continuous communication**

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