



Ben Welle

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Planner

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Urban millennium

Over 50% in 2007

30% in 1950

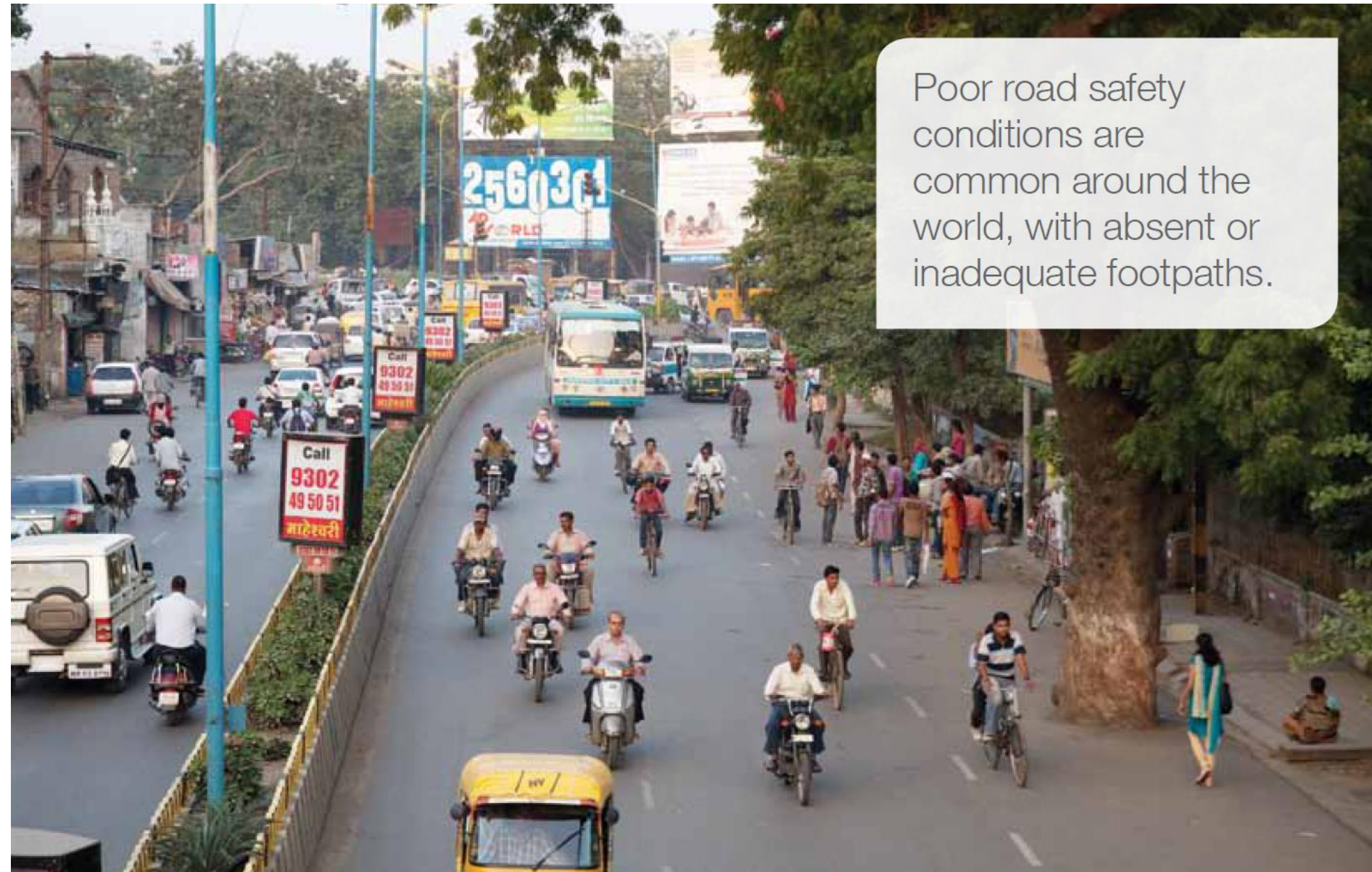
14% in 1900

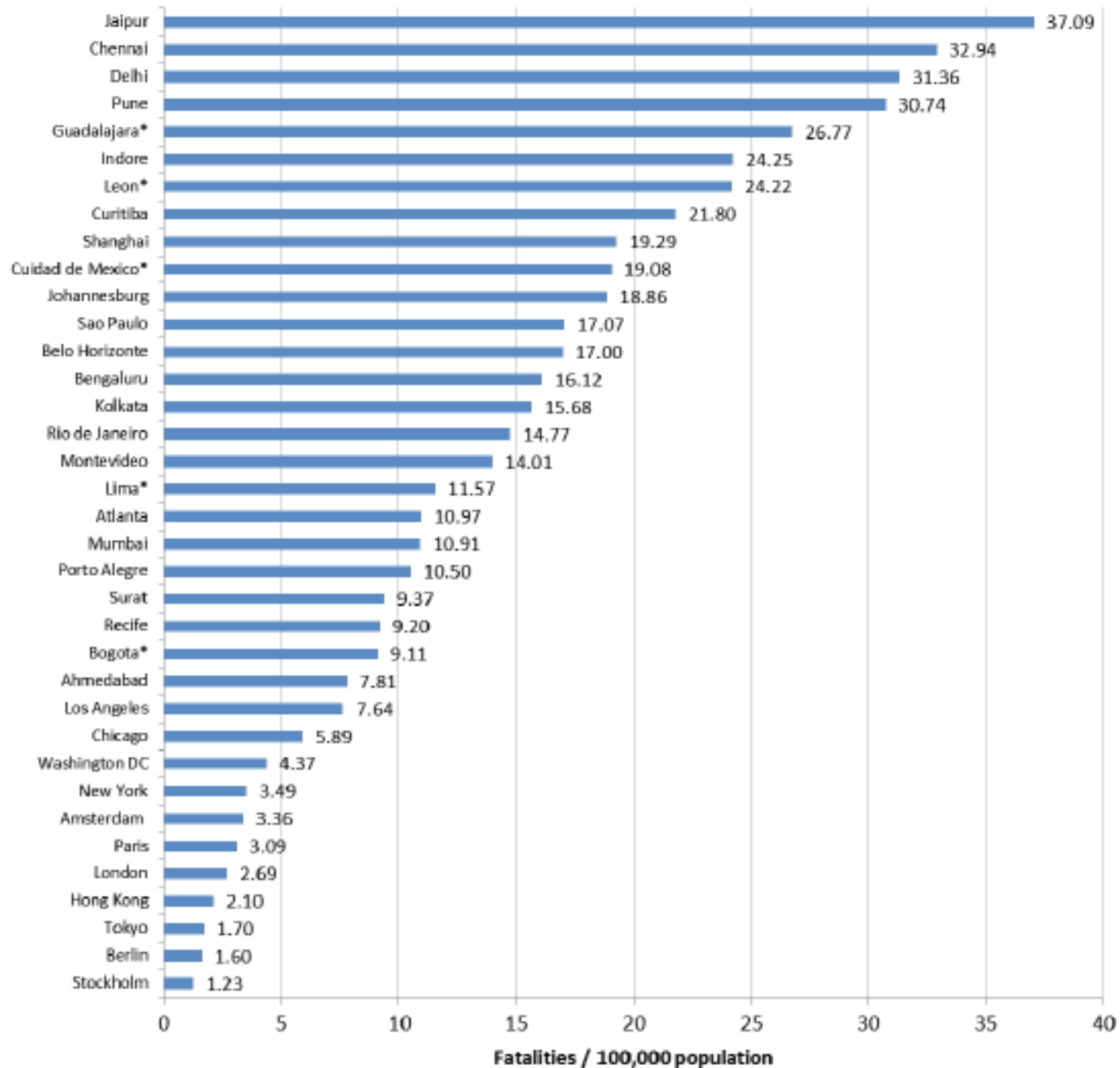
3% in 1800



The Global Population

Poor road safety conditions are common around the world, with absent or inadequate footpaths.

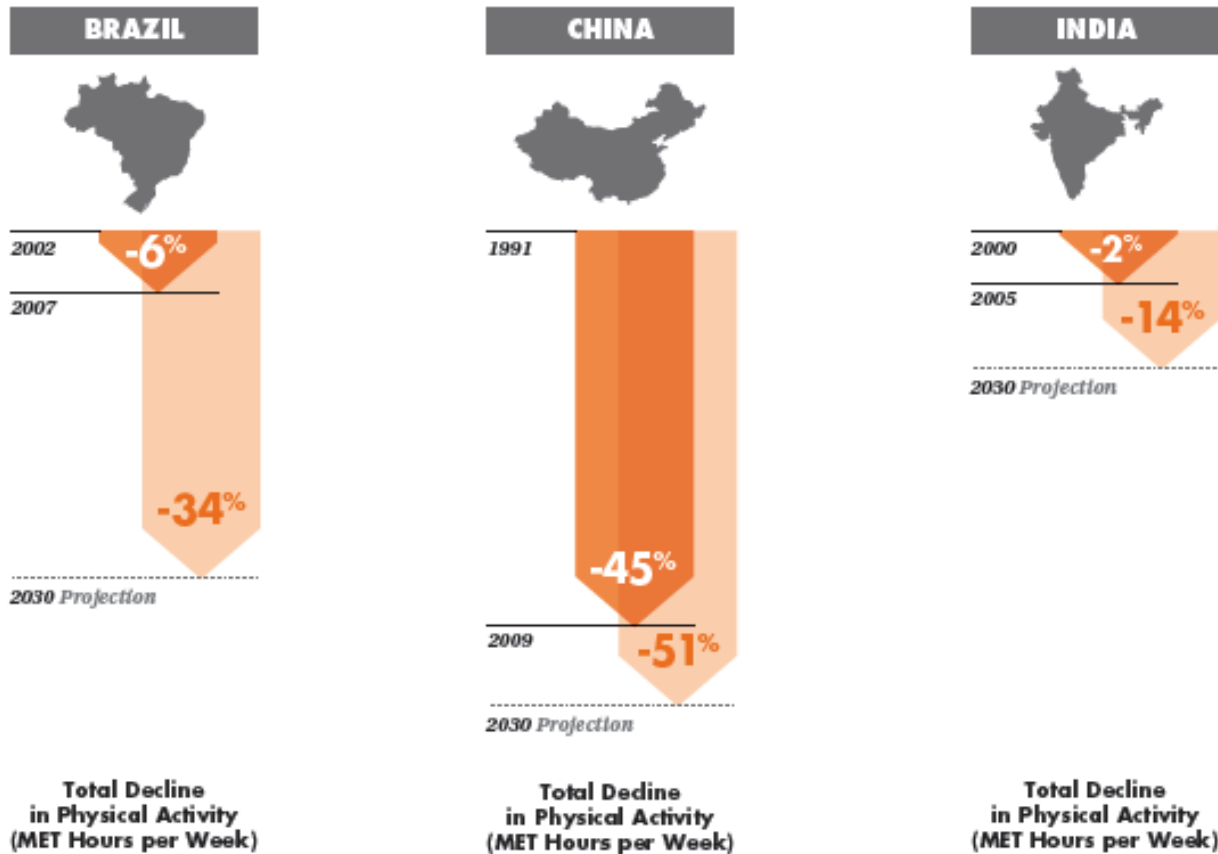






Citizens are getting less daily activity and more obese – around the world

Emerging economies' trends in physical inactivity are accelerating.



Source: Designed to Move

Sustainable Urban Transport And Development Can Save Lives

➤➤ Avoid

➤➤ Shift

➤➤ Improve



Who is using the city and how can they be safe and active?

- Elderly & disabled
- The Poor
- Children
- Commuters
- Customers
- Citizens
- Visitors
- Men & Women



MACROBUS BRT CORRIDOR IN GUADALAJARA, MEXICO

Passengers per hour per direction (peak)



Crashes per year



SOURCE: Jalisco State 2011, E.P.S. 2011, EMBARQ analysis

Moving people through high quality mass transport saves lives while providing mobility

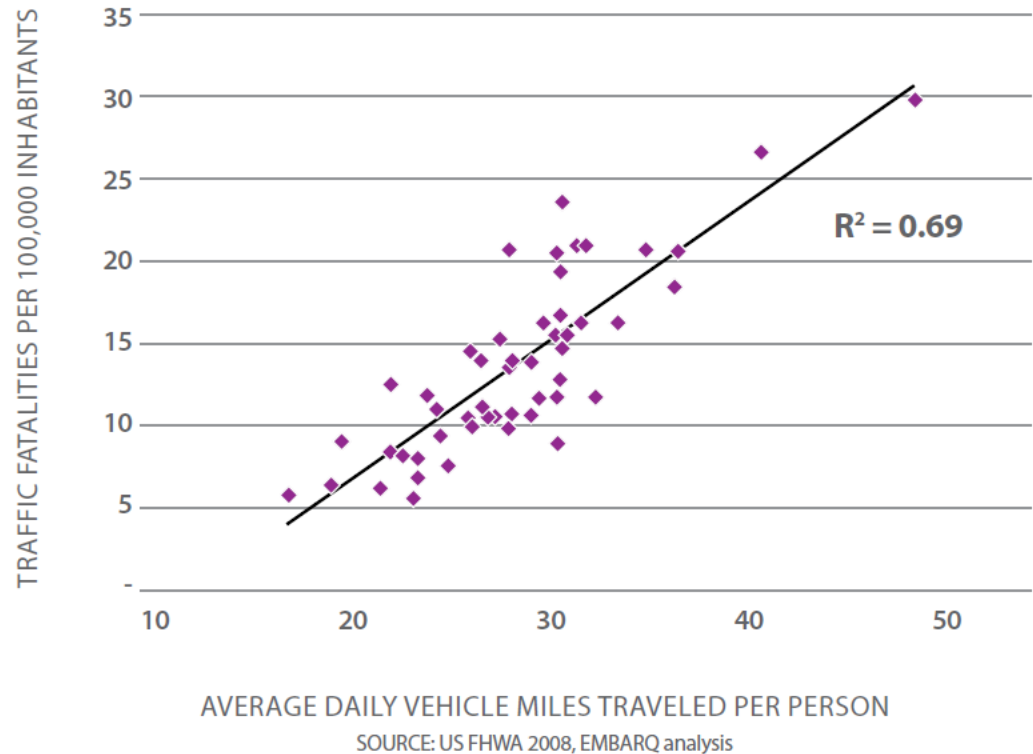
The safety of mass transit is evident from a BRT corridor in Guadalajara, Mexico, with buses carrying many times more passengers than a private car yet seeing many times fewer crashes.



Less vehicle distance traveled means fewer traffic fatalities

Evidence from within countries has shown that with more vehicle travel, there are more traffic fatalities, as shown in this graph from the United States. Moving people through mass transport, walking and biking can limit vehicle travel, reducing crashes and traffic fatalities.

The relationship between vehicle travel and traffic fatalities in United States urban areas



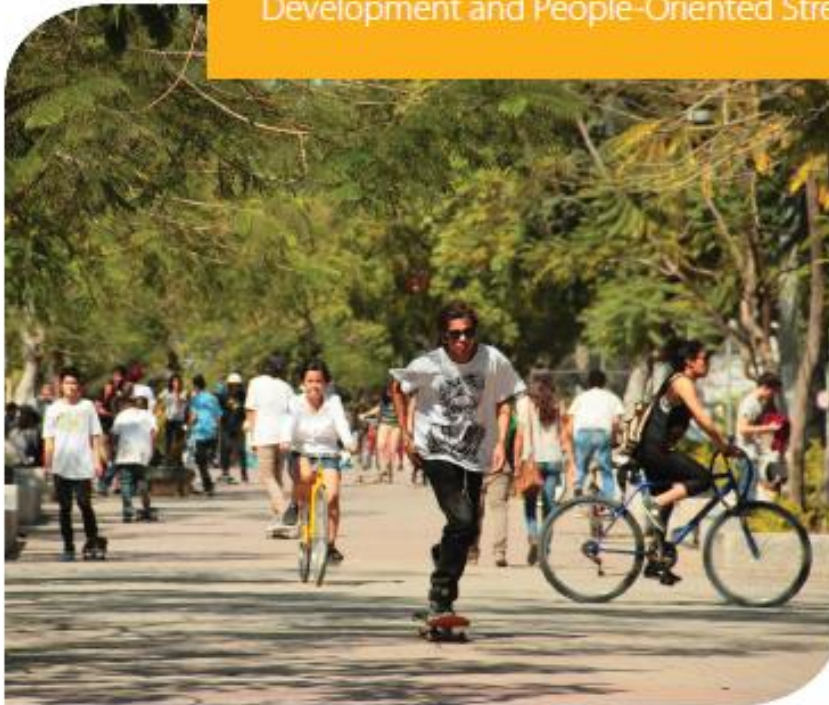
Reduce speeds

- 90% of pedestrians survive when a car hits at 35km/h
- 75% of pedestrians survive when a car hits at 45 km/h
- 80% reduction in serious injuries after 40 km/h speed zone

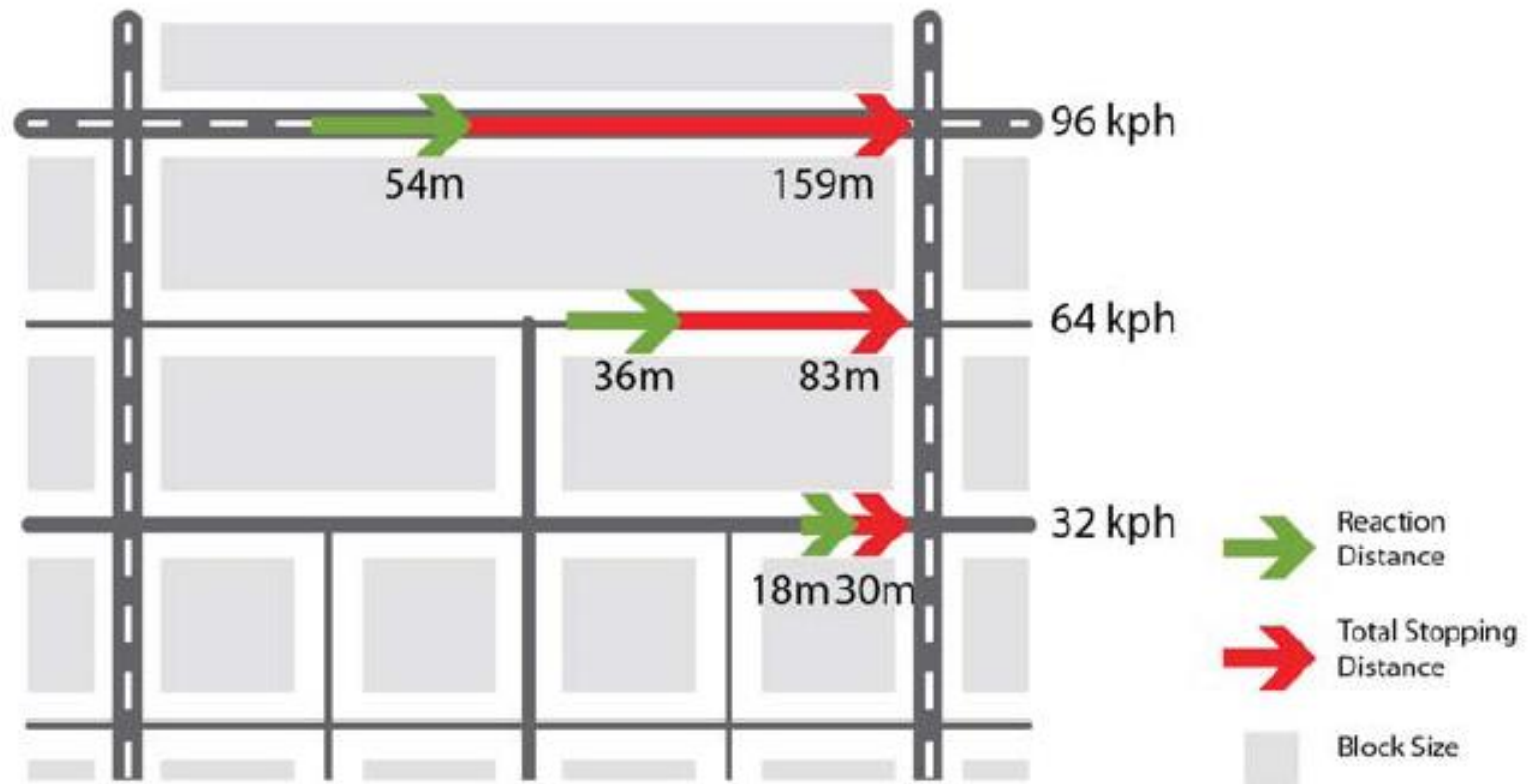


CITIES SAFER BY DESIGN

Principles and Practices to Promote
Traffic Safety through Transit-Oriented Urban
Development and People-Oriented Streets



KEY COMMUNITY DESIGN ELEMENTS THAT SAVE LIVES



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(Venice, Italy)



Street Maps at the Same Scale
(Downtown Los Angeles, CA)

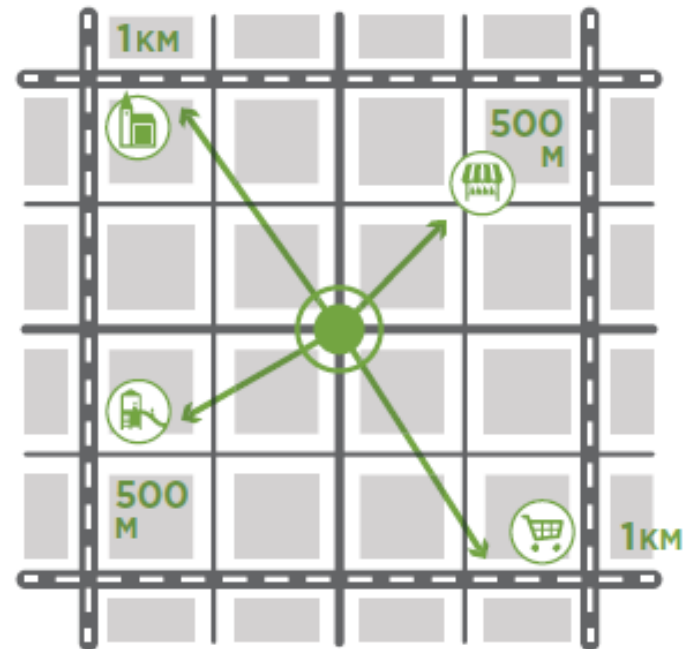
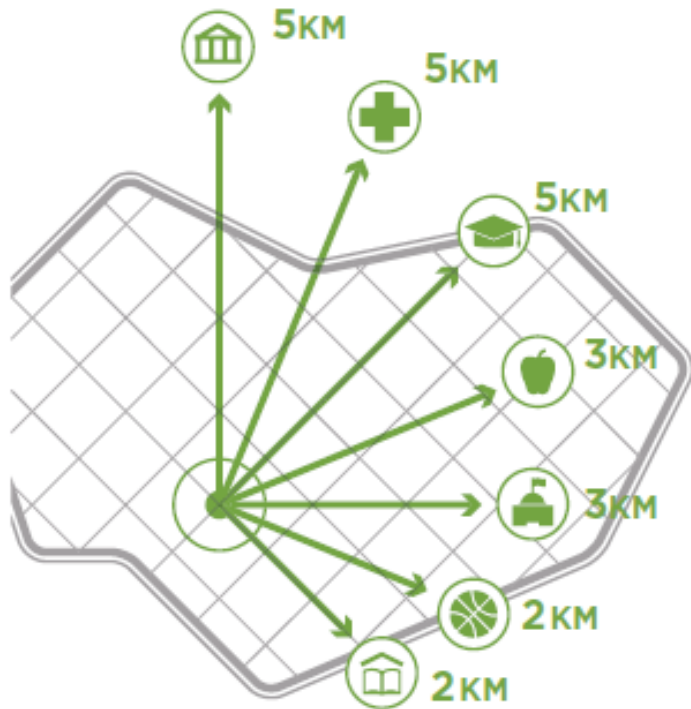


(Irvine, CA)



Source: A.B. Jacobs, *Great Streets*, MIT Press, Cambridge, MA, 1993, pp. 221, 225, 249.

KEY COMMUNITY DESIGN ELEMENTS THAT SAVE LIVES



CONNECTED AND CALMED

- TRAFFIC CALMING MEASURES TO REDUCE SPEED, MAXIMIZE SAFETY

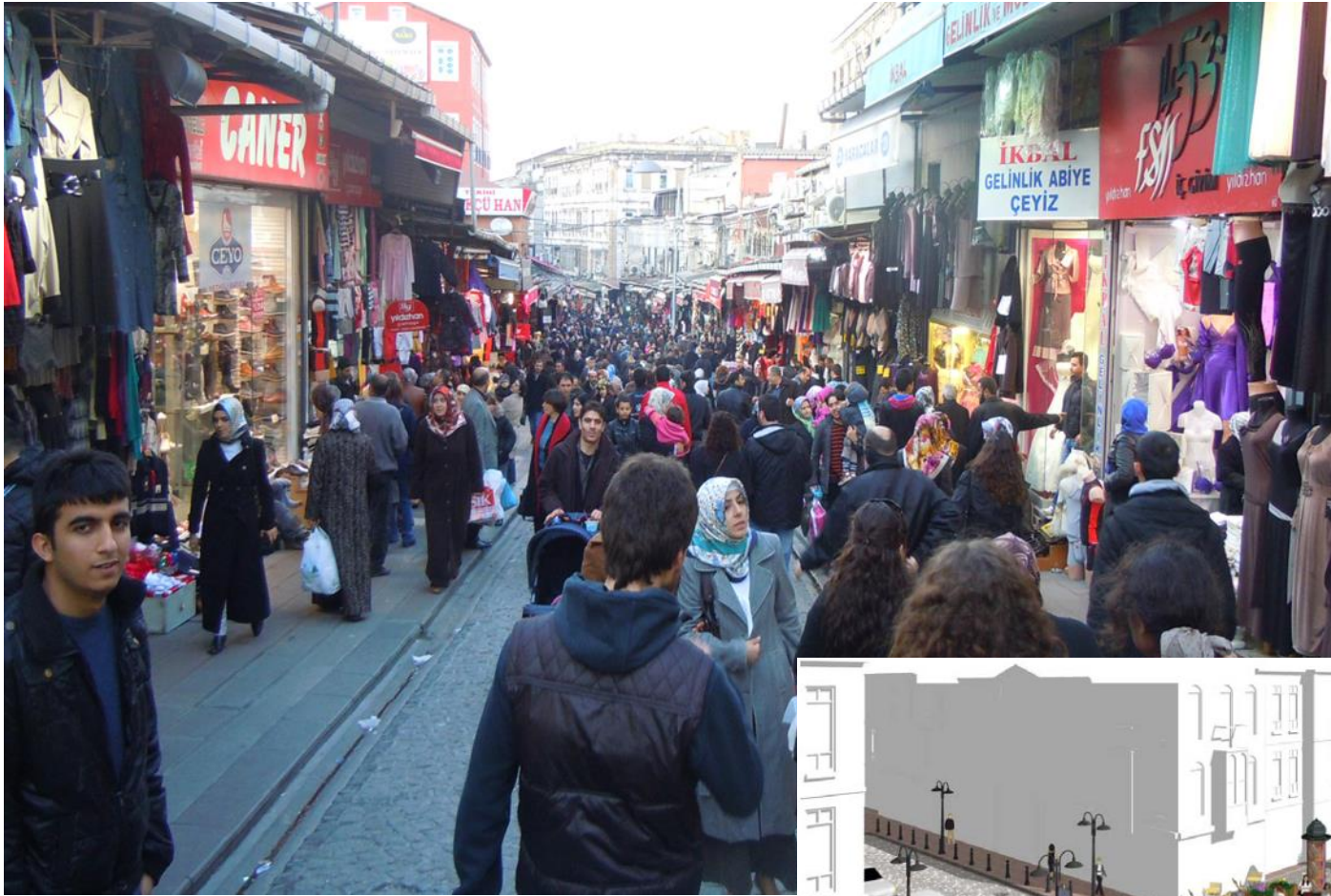


CONNECTED AND CALMED

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SAFE & FRIENDLY PEDESTRIAN SPACE



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SAFE AND FRIENDLY BICYCLE DESIGNS



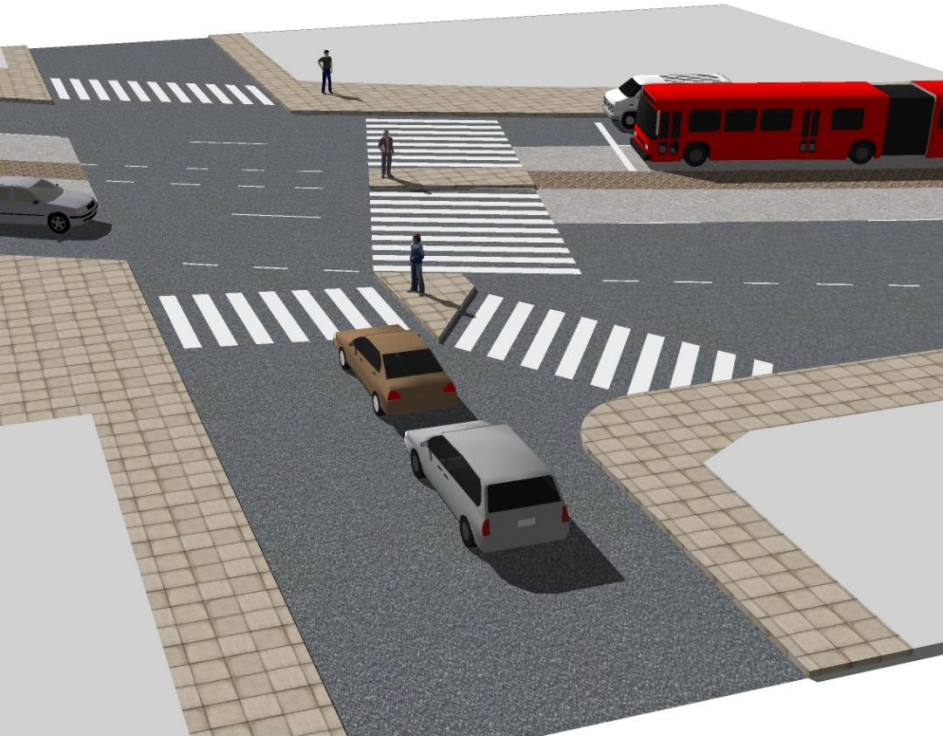
SAFE AND FRIENDLY BICYCLE DESIGNS



SAFE AND FRIENDLY BICYCLE DESIGNS



Road Safety Audits



- Intersection in Brazil

➤➤ Recommended redesign from a road safety audit



URBAN DEVELOPMENT

Transit Oriented Development

- Increased transit use, walking and biking
- More destinations closer to transit
- Lower car use
- Lower speeds
- Residents are safer and more physically active



Cheonggyecheon River, Seoul, South Korea

Urban renewal project
Cheonggyecheon River, Seoul, South Korea



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