

Increased likelihood of injury as a form of transport disadvantage for differently abled and elderly travellers: Evidence from urban metro subway systems

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Community of Metros
CoMET

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London



CoMET and Nova: 32 Urban Rail Systems in 30 World Cities



“Transport Disadvantage” (Delbosc & Currie, 2011)

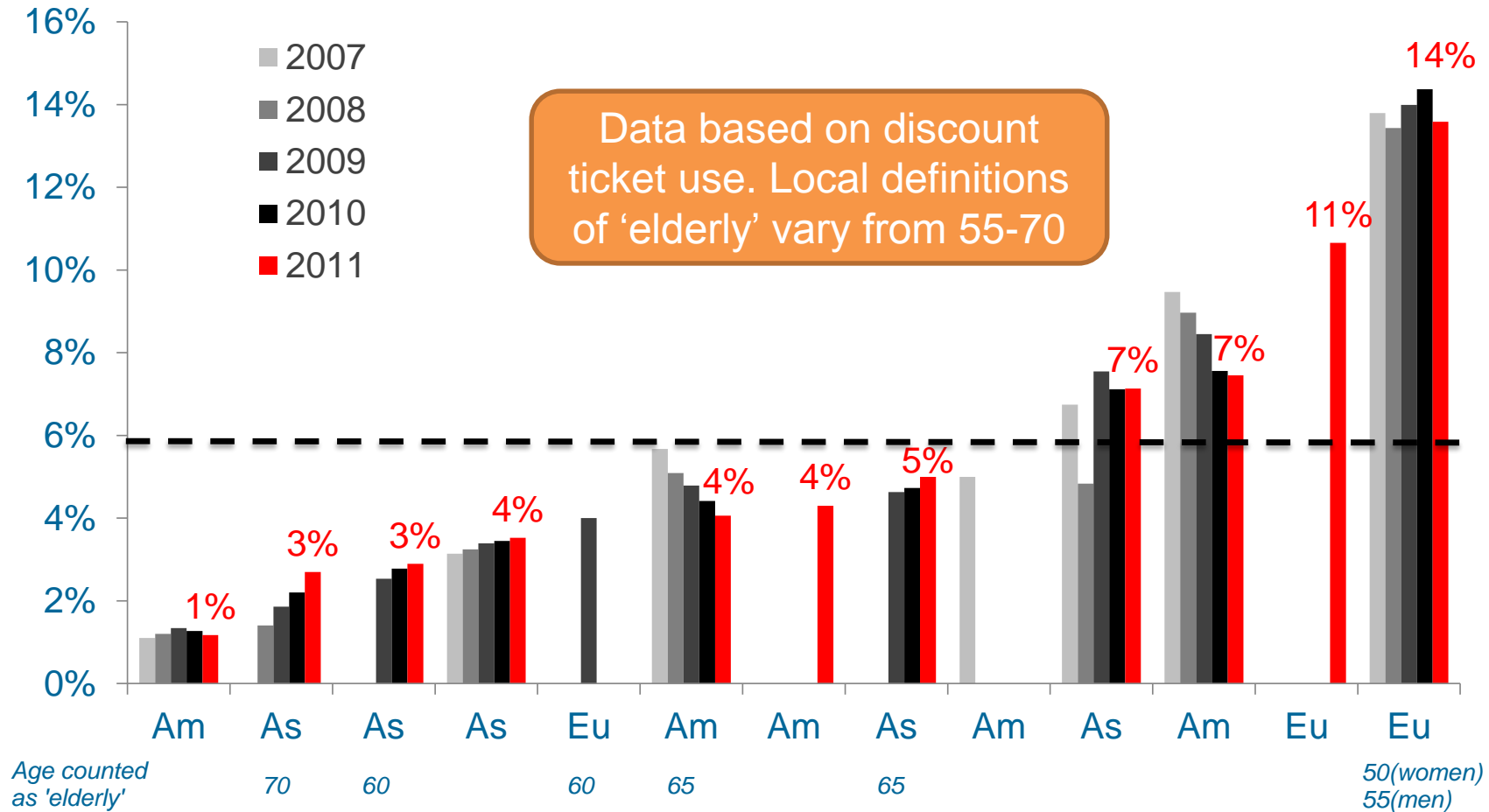
1. Ability of a particular group of people to access the transport system
2. Ability to access certain travel modes
3. Accessibility of a location (in terms of distance or travel time)

STUDY OBJECTIVE: is likelihood of injury a fourth element?



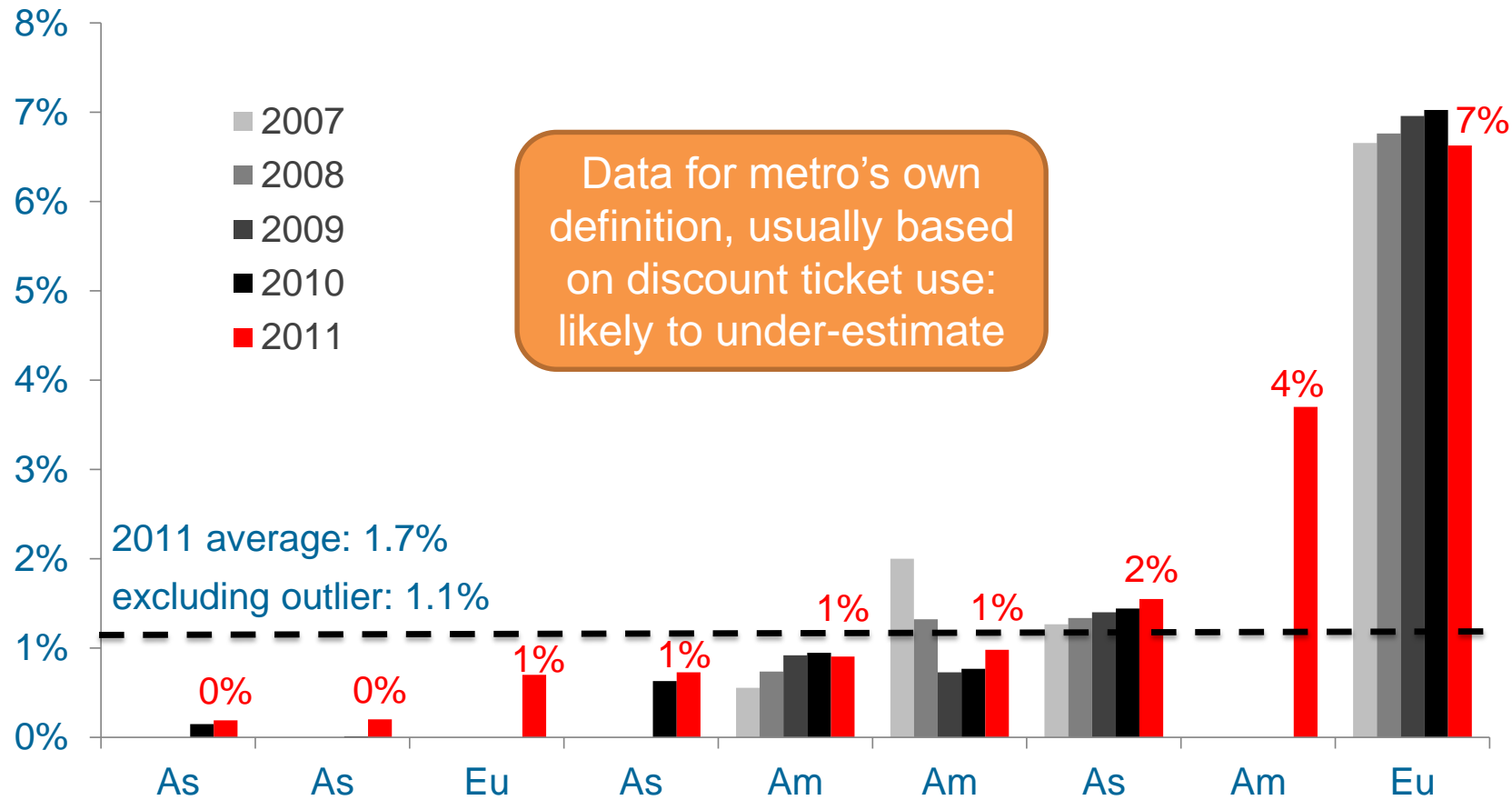
Elderly passengers make ~6% of metro journeys (12 metros)

Elderly Passenger Journeys as % of Total Passenger Journeys



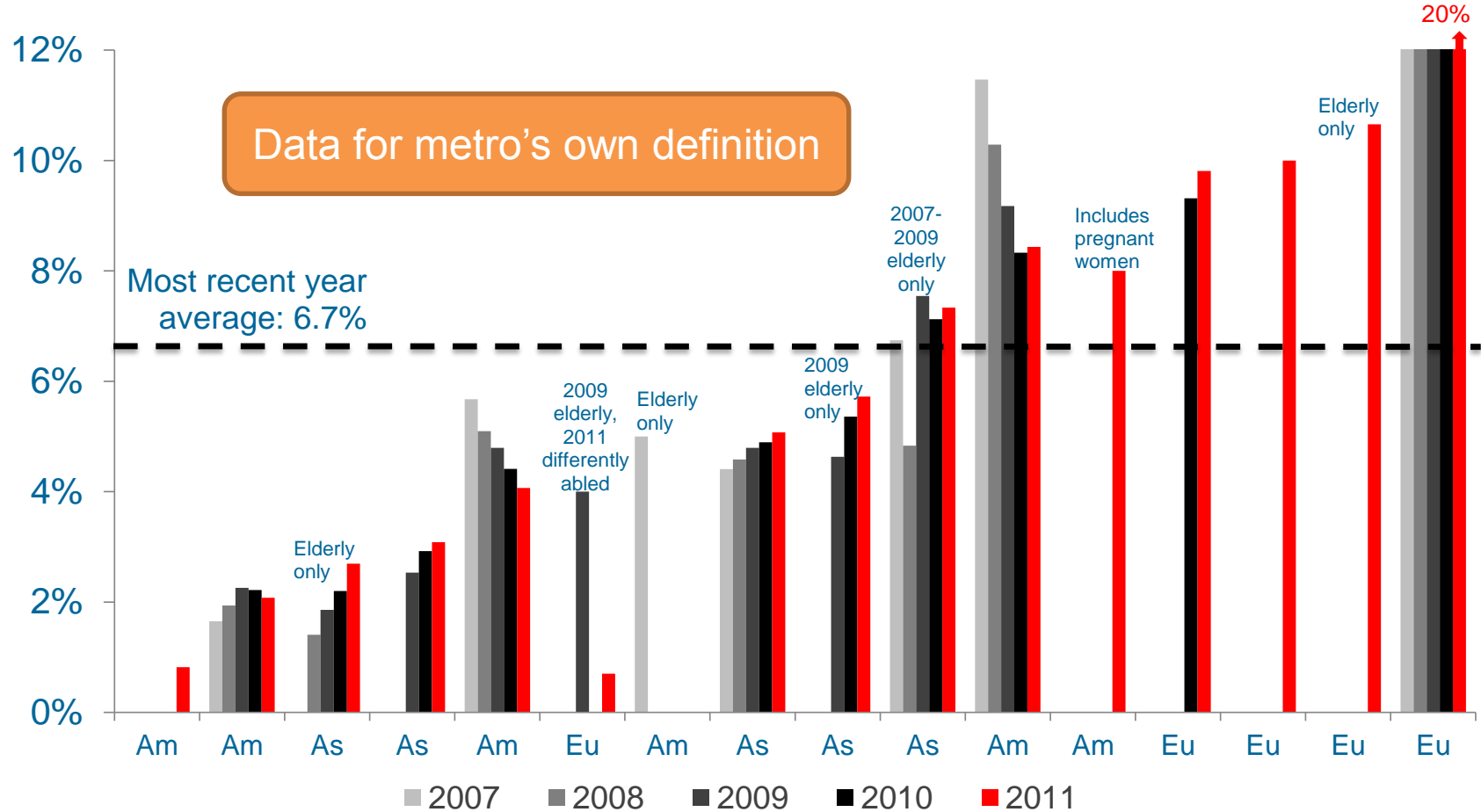
Difficult to count differently abled passenger journeys

Differently Abled Passenger Journeys as % of Total Passenger Journeys



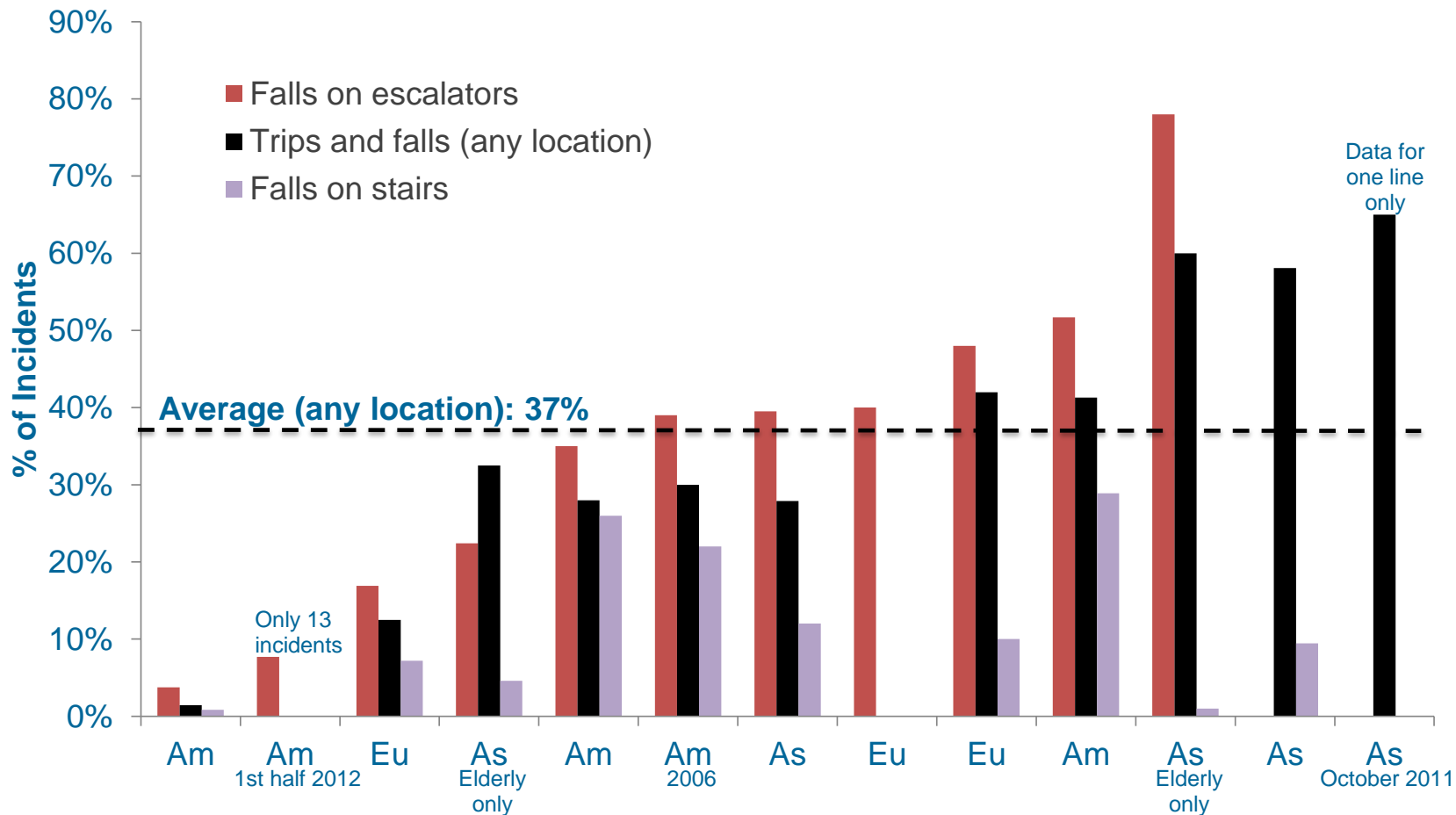
Almost 7% of passenger journeys were made by elderly and differently abled passengers combined (16 metros)

Total Elderly and Differently Abled Passenger Journeys as % of Total Passenger Journeys



37% of trips and falls in metros involved elderly or differently abled passengers (13 metros)

Percentage of Incidents that Involved Elderly or Differently Abled Passengers (2011)



Elderly and differently abled passengers are 7-8 times more likely to be involved in a trip or a fall

- Relative risk for elderly and differently abled passengers
= ratio of % of journeys to % of trip/fall incidents

| Location | Median | Range |
|------------|----------|----------|
| Anywhere | 8 | 0.2 - 24 |
| Stairs | 2 | 0.1 - 13 |
| Escalators | 7 | 0.4 - 17 |

Elderly and differently abled people are at substantially higher risk of tripping or falling in metros worldwide

Conclusions

- Differently abled and elderly people:
 - 6% of metro passengers
 - 35% of falls in metros
 - More likely than the general population to fall or trip in the metro.
- Escalators are a key risk area
 - Elderly and differently abled passengers 7 times more likely to fall



Thank You – Any Questions?

<http://www.cometandnova.org>

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