

Investment Case for Road Safety Interventions

Young People in Low Income Countries

26th November, 2022

Dr John Symons and Dr Kim Sweeny

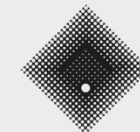
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THE NEW WAY TO DO UNI



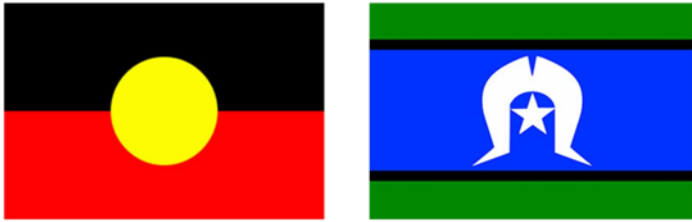
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Acknowledgement of Country – Sydney



We acknowledge the Ancestors, Elders and families of the Eora Nation who are the Traditional Owners of University land. We also acknowledge all Traditional Owners of Country throughout NSW and pay our respect to their culture, and their Elders past, present and future.

As we share our own knowledge practices within the University may we pay respect to the deep knowledge embedded within the Aboriginal community and their ownership of Country.

We acknowledge that the land on which we meet is a place of age old ceremonies of celebration, initiation and renewal and that the Eora people's living culture has a unique role in the life of this region.

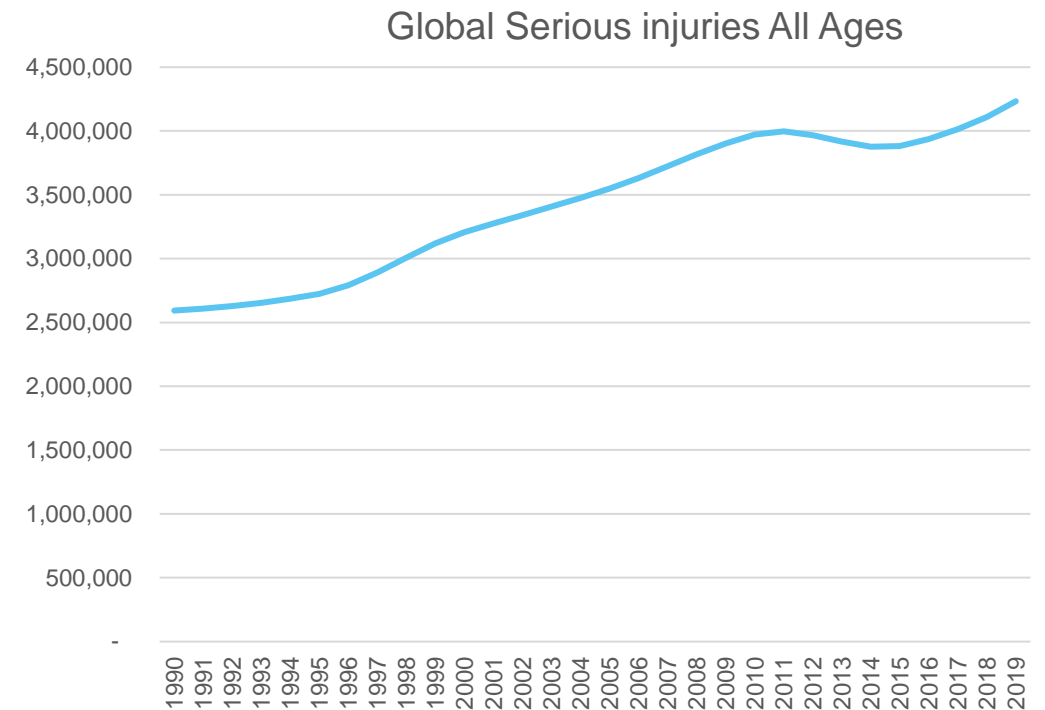
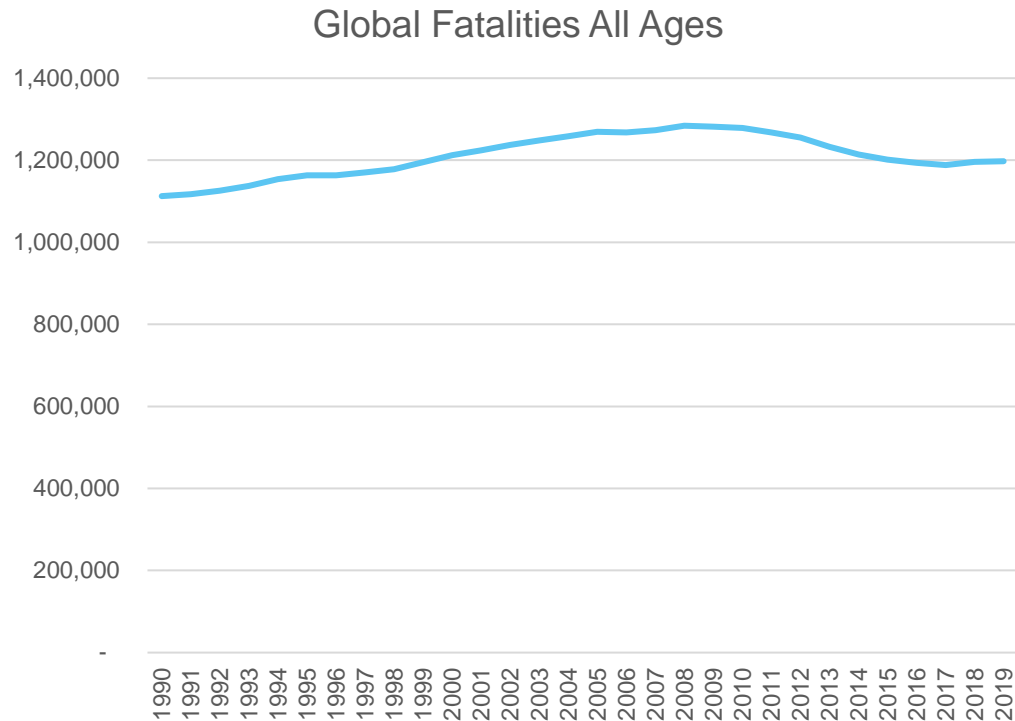
Global Burden of Disease Data

The Global Burden of Disease Study (GBD) is a comprehensive regional and global research program of disease burden that assesses mortality and disability from major diseases, injuries, and risk factors (Institute for Health Metrics and Evaluation (IHME) at the University of Washington)

Road Traffic injuries data from 1990 organised by:

- ◆ mode
 - ◆ **Pedestrian, cyclist, motor cycle rider, motor vehicle occupant, other**
- ◆ Gender, and
- ◆ Age cohort

Global Burden Road Traffic Fatalities and Serious Injuries (permanent impairment preventing work or education)



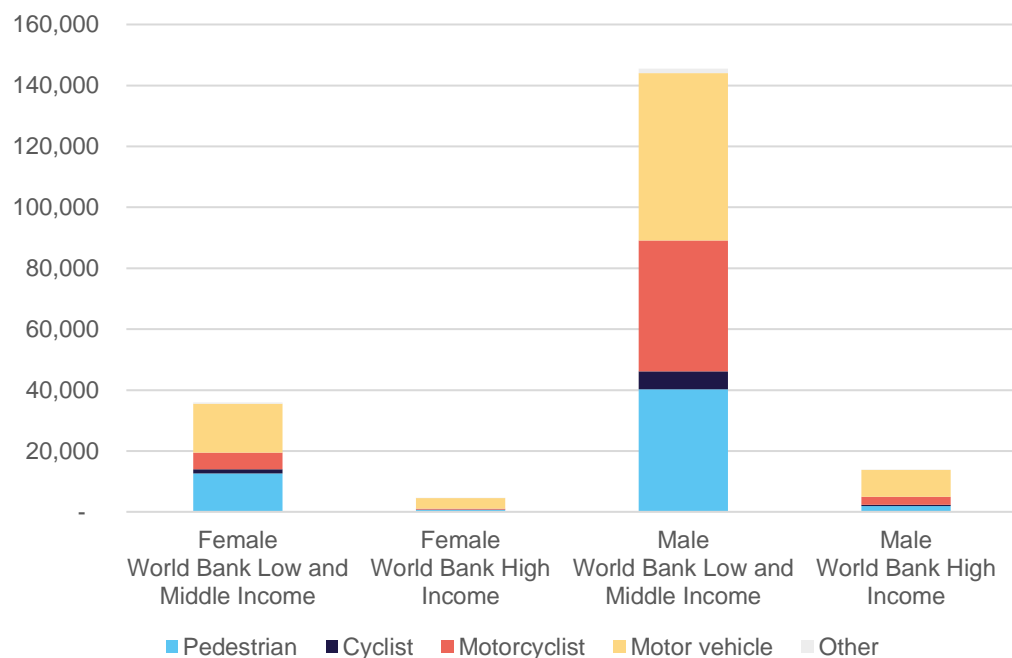
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Road Traffic Fatalities & Serious Injuries

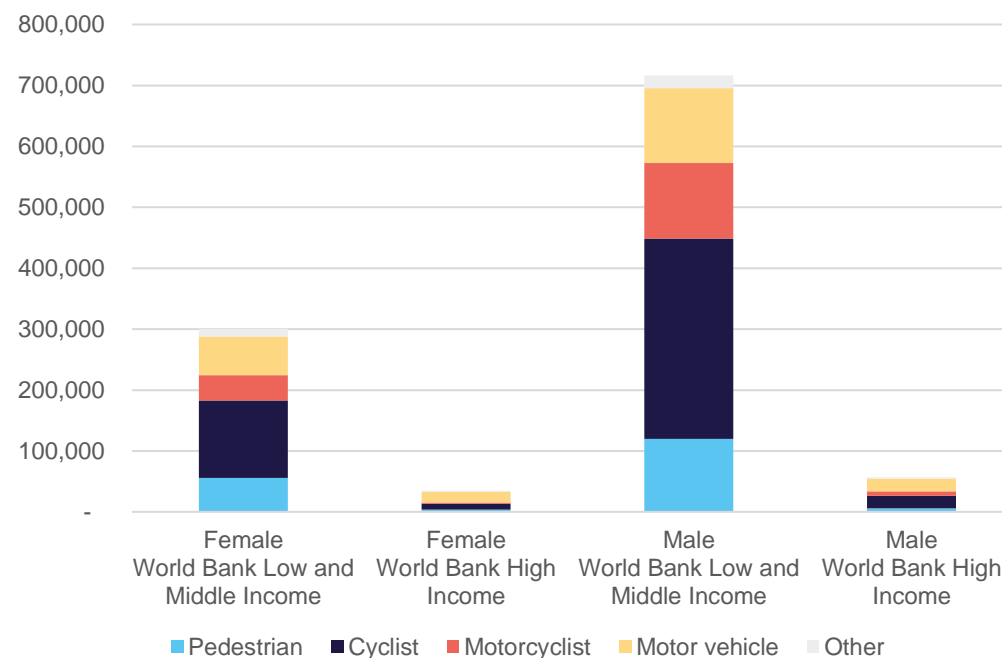
World Bank Income Levels

Young people (10-24) top 2 cause of death

Fatalities 10-24 (2019)



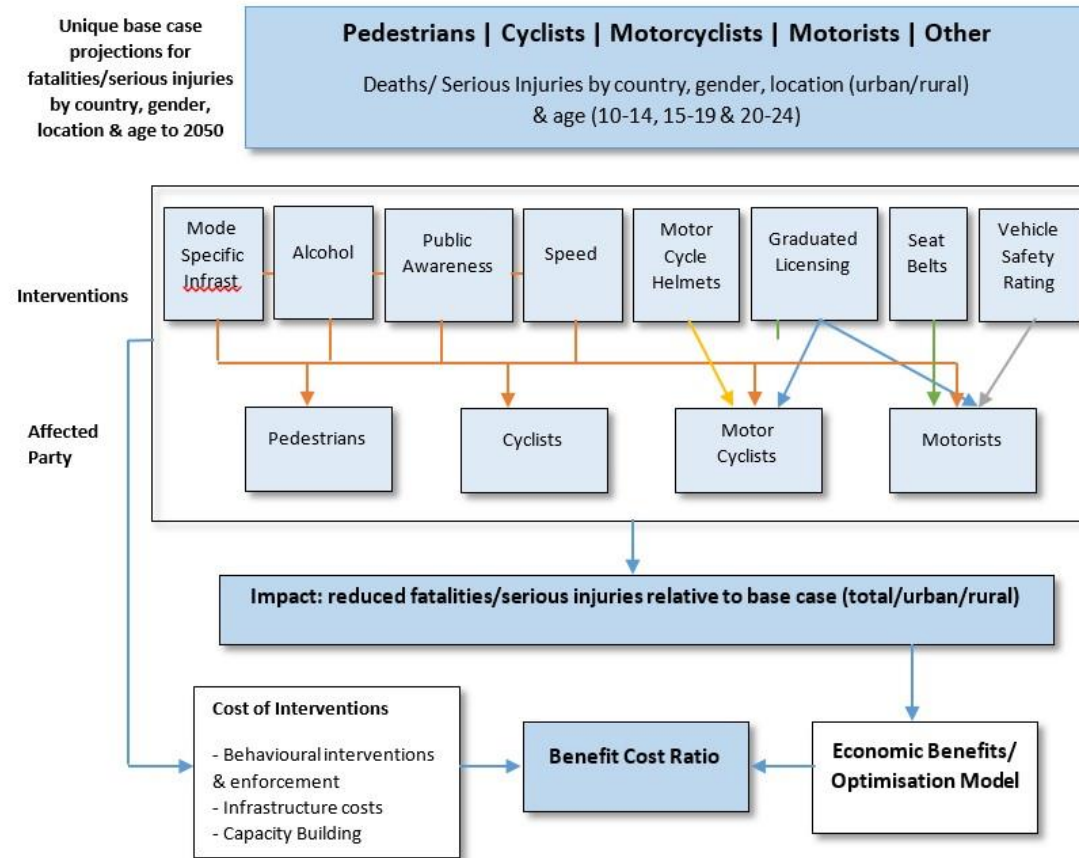
Serious Injuries 10-24 (2019)



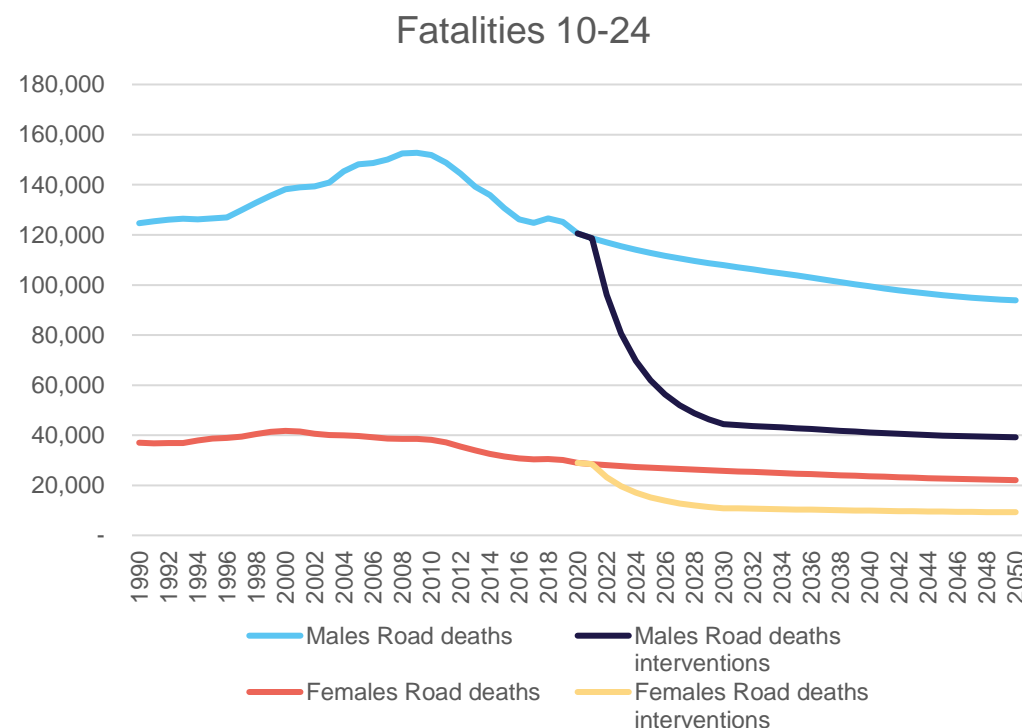
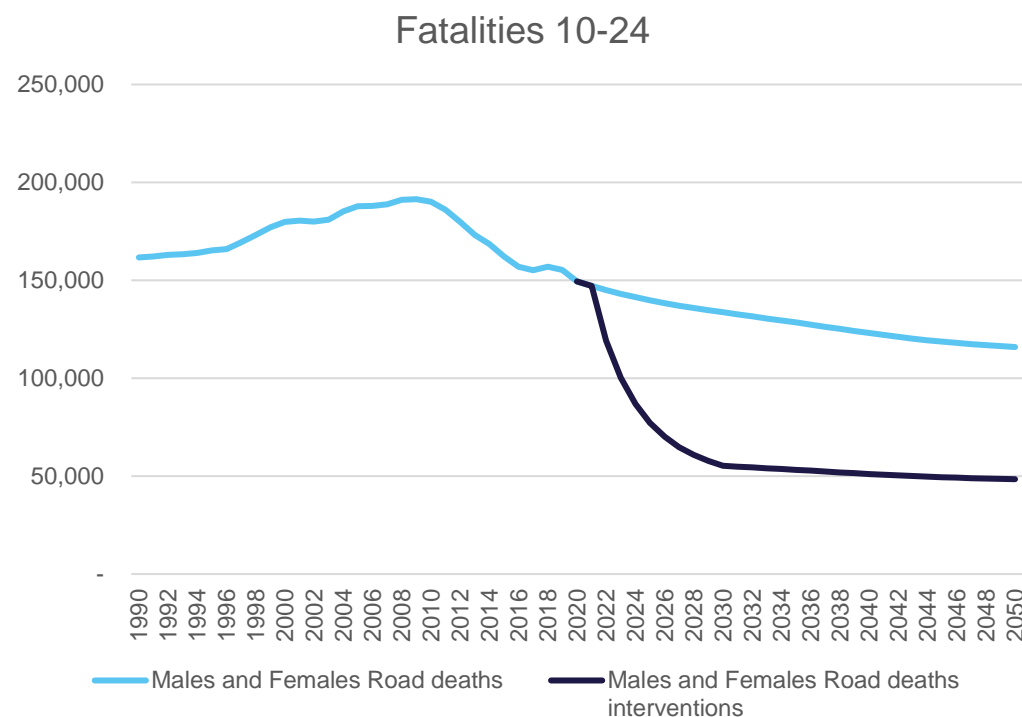
Modelled Interventions

- Seat belt enforcement (motor vehicle occupants only)
- Motorcycle helmets (motor cycle riders only)
- Alcohol enforcement (all road users)
- Speed enforcement (all road users)
- Graduated Licensing Scheme (all road users)
- Safer Infrastructure (all road users, infrastructure requirements vary depending on mode, iRAP star rating system for roads)
- Car Safety (initially motor vehicle occupants only)
- Public Awareness Campaign (all road users)
- Capacity Building (all road users)

Model Structure

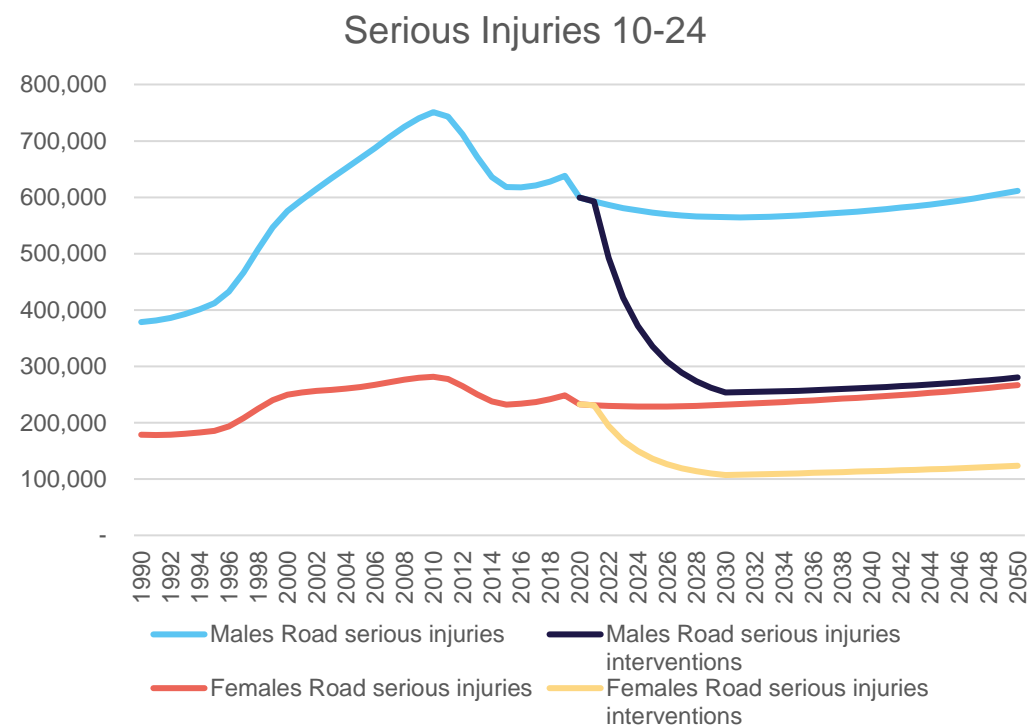
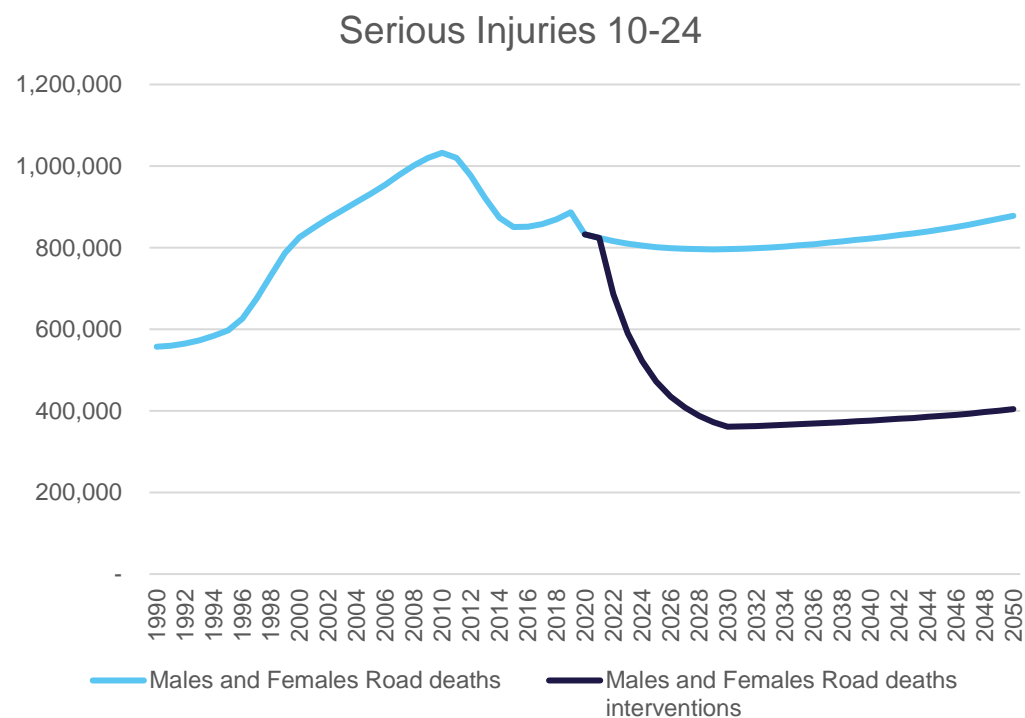


Road Safety Modelling Results

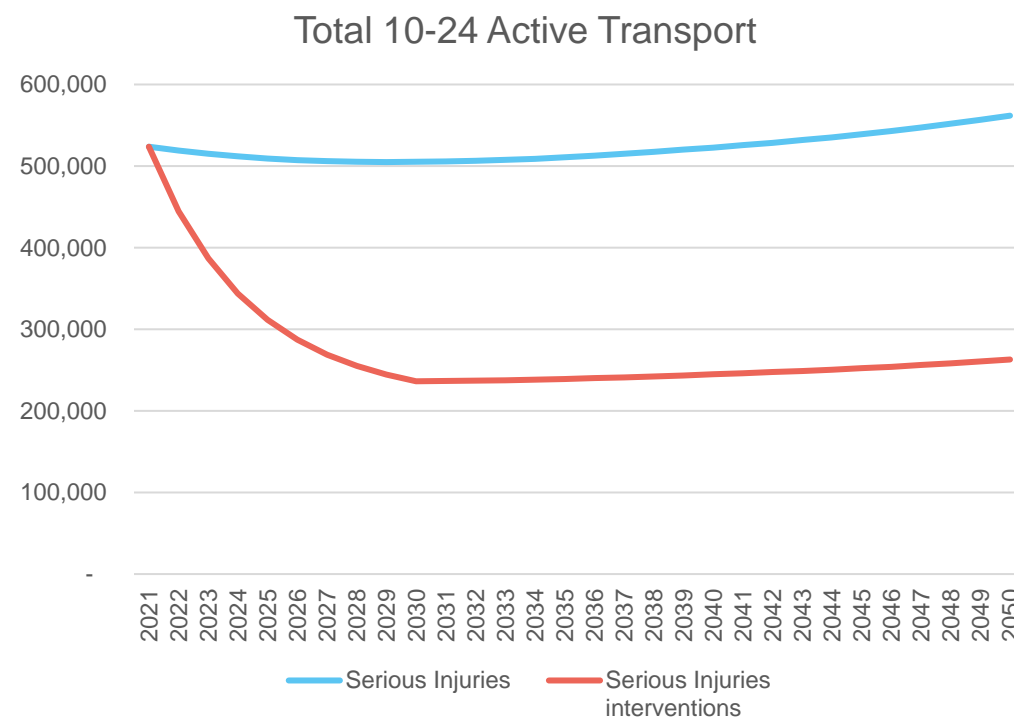
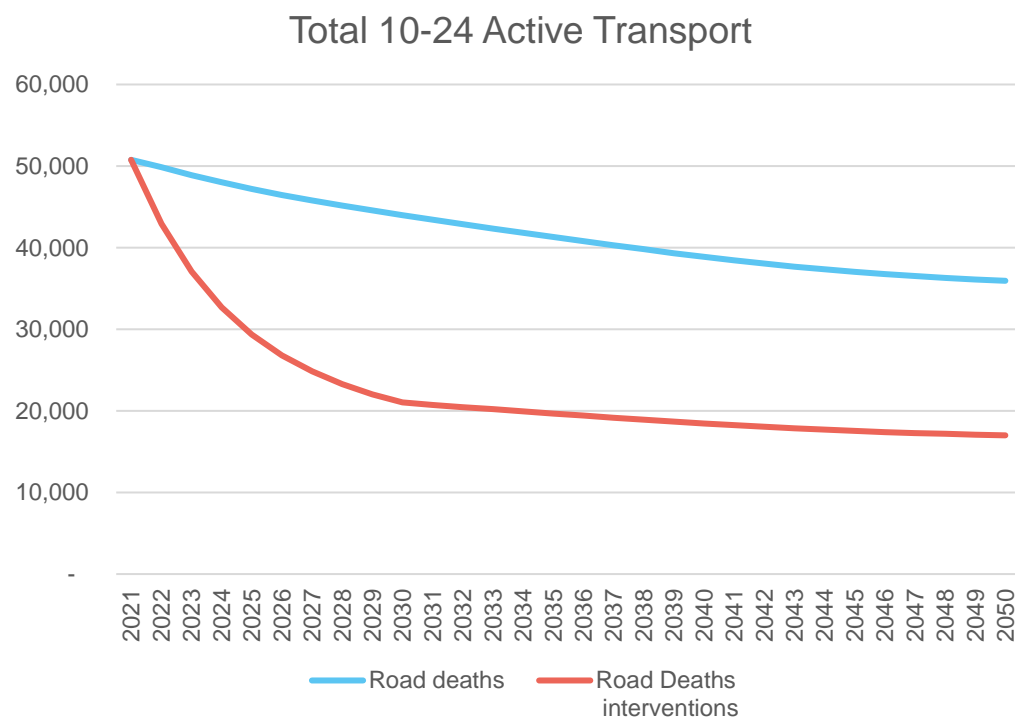


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Road Safety Modelling Results



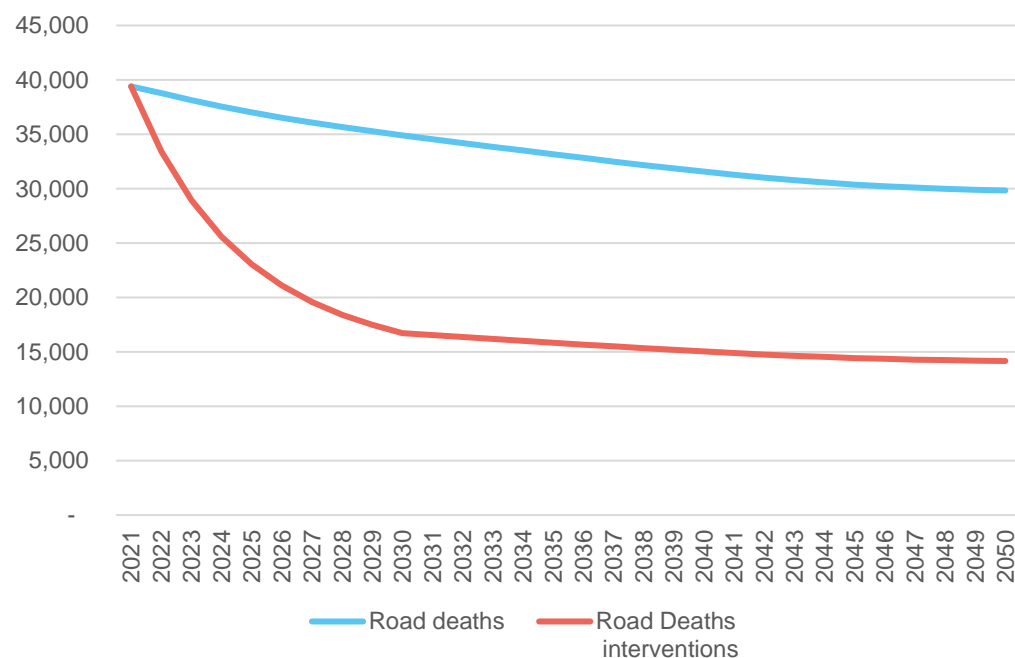
Road Safety Active Transport Results



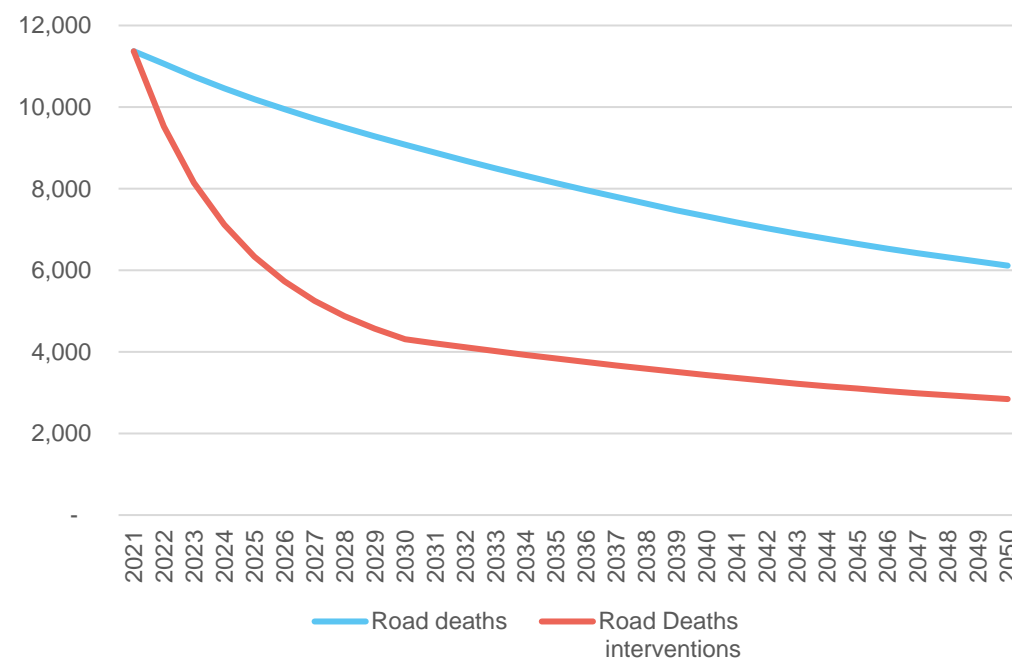
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Road Safety Active Transport Results

Male 10-24 Active Transport

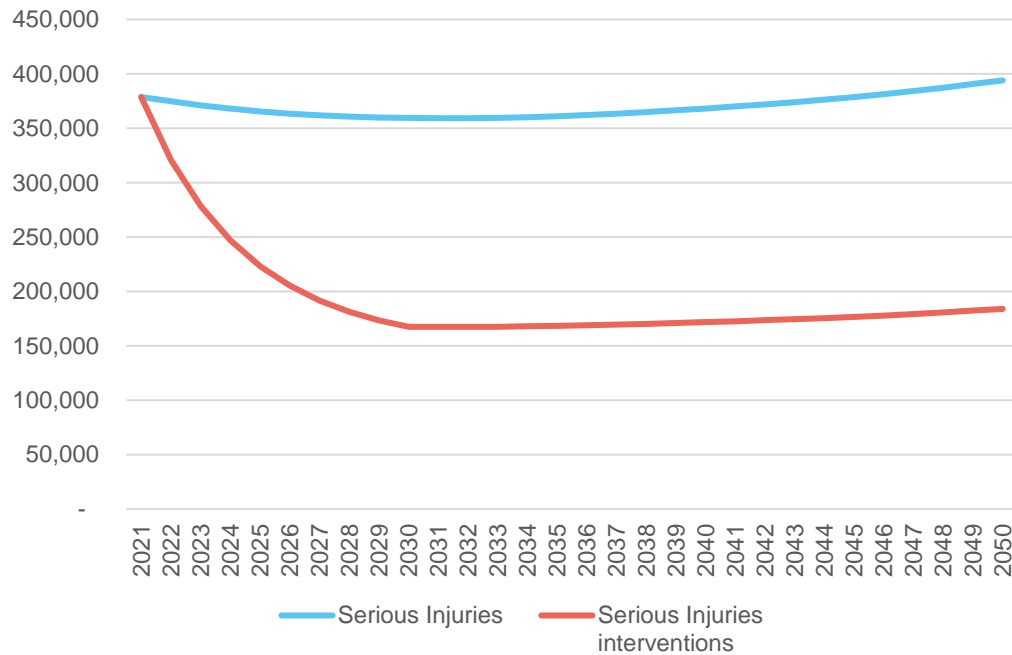


Female 10-24 Active Transport

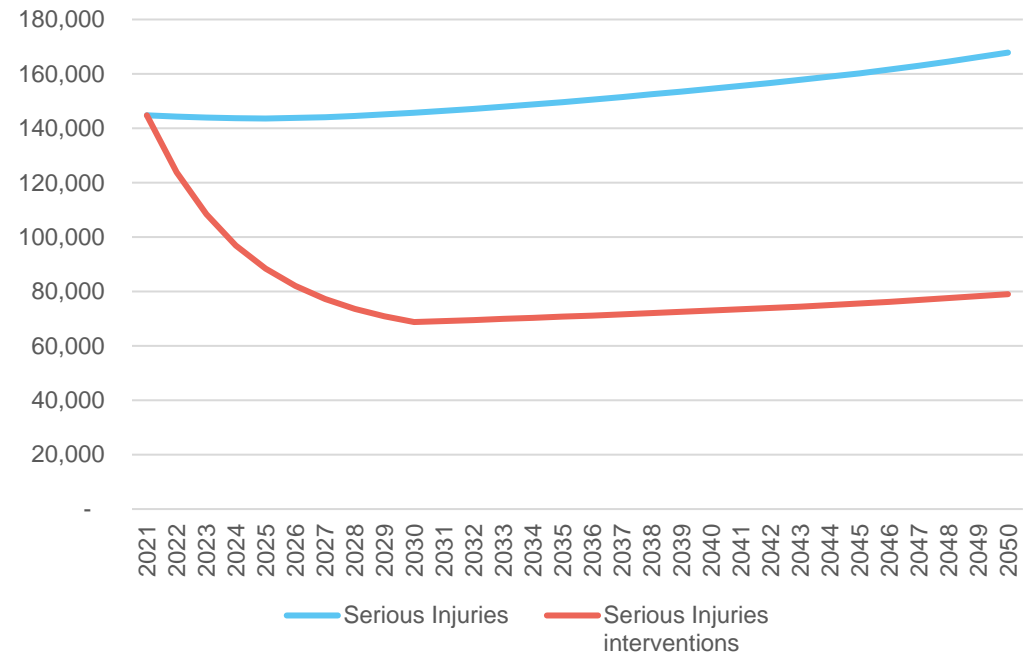


Road Safety Active Transport Results

Male 10-24 Active Transport



Female 10-24 Active Transport



Road Safety Modelling Economic Results (2022-2050)

- Reduced fatalities and serious injuries
- Decreased healthcare costs
- Increased labour force participation rates
- Increased productivity

	Benefits (\$bil)	Costs (\$bil)	Benefit Cost Ratio
Low income	\$127.6	\$8.1	15.6
Lower middle income	\$714.1	\$57.1	12.5
Upper middle income	\$878.3	\$64.6	13.6
Total	\$1,720.1	\$129.9	13.2

With thanks

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- The International Road Assessment Program (iRAP)
- Murdoch Children's Research Institute (MCRI)
- Global New Car Assessment Program (Global NCAP)
- Amend Africa
- AIP Vietnam