



# Building the Way for Safer Roads: How AIG Is Helping To Address A Global Public Health Issue



# ROAD SAFETY



**1.24** MILLION PEOPLE DIE EACH YEAR ON THE WORLD'S ROADS AND 20 TO 50 MILLION SUSTAIN NON-FATAL INJURIES<sup>1</sup>



## FACTS

AIG INSURES OVER **10** MILLION PRIVATE & COMMERCIAL VEHICLES AROUND THE WORLD

AIG HAS A GLOBAL WORKFORCE OF OVER **64,000** EMPLOYEES

**ROAD ACCIDENTS ARE THE 8<sup>TH</sup> LEADING CAUSE OF DEATH GLOBALLY** AND THE NUMBER ONE CAUSE OF DEATH FOR 15-29 YEAR OLDS<sup>2</sup>

IF NOTHING IS DONE BY 2030, **ROAD DEATHS ARE PROJECTED TO BECOME THE 5<sup>TH</sup> MOST COMMON CAUSE OF DEATH** AHEAD OF DIABETES, THROAT AND LUNG CANCER, AND HIV/AIDS<sup>3</sup>



**ROUGHLY 90%**

OF ROAD ACCIDENTS OCCUR IN LOW AND MIDDLE INCOME COUNTRIES, DESPITE ONLY HAVING ROUGHLY HALF OF THE WORLD'S REGISTERED VEHICLES<sup>4</sup>



Males represent nearly three-quarters of those killed on the road today; while persons aged 15 to 44 represent 59% of road fatalities<sup>5</sup>

PRESENT IN **130** COUNTRIES AND JURISDICTIONS, AIG HAS INTIMATE KNOWLEDGE OF GLOBAL ROAD SAFETY CHALLENGES

## VULNERABLE ROAD USERS

(pedestrians, cyclists, and riders of motorized two-wheelers and their passengers) represent

**46%** OF ROAD TRAFFIC DEATHS AROUND THE WORLD<sup>6</sup>

The risk to this group of road users is even more pronounced in lower income countries

## MOST PREVENTABLE CAUSES OF ROAD ACCIDENTS

AIG leverages data driven insights and claims experience to understand why road accidents happen



DRUNK DRIVING



DISTRACTED DRIVING



SPEEDING



INFREQUENT HELMET USE



INFREQUENT SEAT-BELT USE



INFREQUENT CHILD RESTRAINT USE

AIG COLLABORATES WITH LEADING PUBLIC AND PRIVATE ORGANIZATIONS TO DEVELOP TECHNOLOGIES AND DRIVER EDUCATION PROGRAMS THAT HELP IMPROVE ROAD SAFETY

To learn more visit [www.aig.com/roadsafety](http://www.aig.com/roadsafety)

1 <http://www.who.int/mediacentre/factsheets/fs358/en/>. 2 Ibid. 3 [http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/2013/report/background.pdf](http://www.who.int/violence_injury_prevention/road_safety_status/2013/report/background.pdf). 4 Ibid. 5 Ibid. 6 Ibid.

# Executive Summary

Road safety is a global public health issue which, affects all road users – drivers, cyclists and pedestrians alike. Rapid urbanization in Asia and Africa is further accelerating the motorization of the world, bringing with it a growing number of severe road injuries and fatalities. At the current rate, road deaths will become the fifth leading cause of death globally by 2030, eclipsing diabetes, throat and lung cancer, and HIV/AIDS.

As the insurer of over 10 million vehicles globally – from consumer automobiles in Singapore to commercial trucks in Atlanta – and the employer of over 64,000 people, AIG is increasing its efforts to improve road safety.

Through its relationships with leading private and public organizations, some of which are outlined in this whitepaper, AIG supports the development of new technologies and educational programs to help lower the number of road traffic deaths and severe injuries around the world.

AIG leverages data-driven insights and years of claims experience to understand why road accidents happen with the intent of helping clients remain safe behind the wheel. Intimate knowledge of the road safety challenges present in the approximately 130 countries and jurisdictions where AIG operates means clients can benefit from considerable expertise.

For the benefit of our clients, we are always innovating. This whitepaper outlines the issue of road safety and highlights some cutting edge ways AIG aims to improve road safety for all road users.

## Road Safety Facts

It is estimated that approximately 1.24 million people die each year on the world's roads and 20 to 50 million sustain non-fatal injuries.<sup>1</sup> Today, road accidents are the eighth leading cause of death globally – and the number one cause of death for 15-29 year olds.<sup>2</sup>

Roughly 90 percent of road accidents occur in low and middle income countries despite those locations only having roughly half of the world's registered vehicles.<sup>3</sup>

The most vulnerable demographics are males and young persons. Males represent nearly three-quarters of those killed on the road today; while persons aged 15 to 44 represent 59 percent of road fatalities.<sup>4</sup>

Besides car and truck drivers, vulnerable road users (pedestrians, cyclists, and riders of motorized two-wheelers and their passengers) represent approximately 46 percent of road traffic deaths around the world.<sup>5</sup> The risk to this group of road users is even more pronounced in lower income countries.

In addition to the human and emotional cost of these accidents, it is estimated that global losses due to road traffic injuries total approximately \$518 billion and cost governments between approximately one and three percent of their gross national product.<sup>6</sup>

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1. <http://www.who.int/mediacentre/factsheets/fs358/en/>

2. Ibid

3. Ibid

4. Ibid

5. [http://www.who.int/violence\\_injury\\_prevention/road\\_safety\\_status/key\\_data/kd\\_2.pdf](http://www.who.int/violence_injury_prevention/road_safety_status/key_data/kd_2.pdf)

6. <http://www.un.org/en/roadsafety/>

## AIG and Road Safety

In 2011, the United Nations (U.N.) recognized the threat posed by road accidents by launching the Decade of Action for Road Safety to stabilize and then reduce the number of fatal road accidents around the world.<sup>7</sup> As the insurer of over 10 million vehicles globally and a workforce of over 64,000 employees, AIG recognizes the need to immediately take measures aimed at reducing the number of road injuries and deaths around the world.

In March 2014, AIG's President and CEO, Peter Hancock, co-signed an open letter with the CEO of Anheuser-Busch InBev (AB InBev) and representatives from Siemens, Volvo, and Walmart, requesting that road safety be considered a critical area for action and investment in the United Nations' Sustainable Development Goals. It worked. Thanks to that effort and many others by the public and private sector, the U.N. decided to include road safety as part of the post-2015 sustainable development goals.<sup>8</sup>

## Educating Chinese Drivers about Road Safety

Founded in Shanghai in 1919, AIG has strong roots in China and is committed to using its expertise to assist the Chinese government in improving road safety in that country. The number of civilian vehicles on Chinese roads will rise to 200 million in 2020, up from 127 million in 2013.<sup>9</sup>



AIG's research found that road safety was a major issue in China. For example, 20 percent of Chinese drivers have been driving for less than a year, while 40 percent of drivers have been driving less than three years. The ever growing number of drivers has created significant infrastructure and safety challenges.

Additionally, to further understand the risks faced by Chinese drivers, AIG conducted a joint online survey in 2014 of 1,083 drivers aged between 21 to 64 with the Institute of Sociology of the Chinese Academy of Social Science. The survey found that the top three road risks identified by Chinese drivers were distracted driving, speeding, and improper emergency response.

AIG worked with the China Road Traffic Safety Association (RTSAC), local police bureaus, and driving schools in Shanghai and Guangzhou to advance educational programs focused on improving driver safety. These activities focused on providing road safety education to school age children.

Beginning in 2014, AIG has been promoting road safety in China with a large specially modified truck that travelled throughout Guangdong province, Shanghai and Shenzhen. The Tour offers participants educational and entertaining activities focused on improving road safety awareness. These activities include driving simulators that allow participants to evaluate an individual's driving safety level, an impaired driving experience to educate participants on the dangers of drunk driving and a seatbelt simulator that recreates the impact of a collision when driving at a rate of 10 kilometers an hour, and will allow consumers to realize the benefits of wearing a seat belt. The Tour has attracted tens of thousands of people, the press, government bodies, and large corporations.

AIG has also built a China Road Safety website and an extensive offering on social media to promote the Tour and amplify the physical experience to broader audiences. As a result, AIG has attracted 1.8 million followers on China's leading social media platform, Sina Weibo, making AIG the #1 insurance company in this space as of October 2014.

7. Ibid

8. <http://www.who.int/roadsafety/en/>

9. <http://www.bloomberg.com/news/2014-05-30/scary-statistic-china-may-have-1-billion-drivers.html>

# High Risk Traffic Location Identification and Accident Prevention

AIG continuously strives to develop relationships with leading professional, scientific, and academic institutions to uncover insights that will help make our roads safer.

What if we could identify the traffic areas where accidents are likely to occur – before they happen? That is one possible outcome of a recent collaboration between AIG and New York University. Building upon past traffic safety research, the study will use publicly available data to identify high risk traffic locations and assess the impact of safety improvements.

During the yearlong study, researchers will use state-of-the-art image-processing techniques to automatically extract the trajectories of vehicles and pedestrians from two intersections to identify near-crash situations that are likely to cause crashes before they actually occur. This approach can also be used to compare the effects of safety improvements once they are introduced on the roadway. Ideally, improvements could be tailored to specific intersections and selected based on their ability to reduce accidents at that location.

The study will also help develop a statistically driven methodology that uses intersection characteristics (geometry, traffic levels, etc.) to correlate vehicle and pedestrian trajectory data with actual accident data. For example, if a potential accident pattern was detected from near-crashes at an intersection, road engineers could quickly implement countermeasures to fix the identified problem with the intersection or police officers could be dispatched to help control traffic, thus reducing the probability that an accident will occur.

Ultimately, this research could help speed up the process of identifying high risk traffic locations from a number of years to a matter of months, potentially preventing numerous injuries and deaths.

## Studying Truck Driver Safety Technology

Driver fatigue is a major occupational hazard for truck drivers who often spend long hours on the road. Fatigued truck drivers pose a safety risk to themselves and all other road users.

One factor believed to contribute to driver fatigue is whole-body vibration (WBV). Research has found that WBV elevates spinal load, causes muscle fatigue, and is linked to the thinning of the intervertebral discs and subsequent disc herniation.<sup>10</sup> In addition to the negative health effects caused from exposure to WBV, studies have shown that these vibrations also decrease a truck driver's ability to perform job tasks.

To lessen the effects of WBV, Bose, innovator of noise cancelling headphone technology, designed a seating system capable of cancelling out most road vibrations. The result is a truck seating system that significantly reduces the impact of WBV on a truck driver's body, improving the safety and health of truck drivers. AIG teamed up with Bose to offer these systems at a discount to our trucking clients.

In addition, AIG and Bose provided funding to the RAND Corporation to study the link between WBV and driver fatigue. The study's finding will result in the development of a whitepaper which reviews the existing evidence base linking WBV and fatigue and considers appropriate study designs and methodology that will inform new areas of research focused on improving the safety of truck drivers and all others who share the road with them.

<sup>10</sup> <http://www.cdc.gov/niosh/mining/UserFiles/works/pdfs/cowbv.pdf>

## Together for Safer Roads



TOGETHER FOR  
**SAFER ROADS**

AIG believes that the private sector has a role to play in helping make roads safer. By collaborating with other like-minded companies, AIG can become more effective at tackling road safety than by addressing this issue on its own.

AIG and AB InBev are co-chairs of Together for Safer Roads (TSR), the first-ever global private-sector coalition on road safety. Aligned with the goals of the U.N.'s Decade of Action for Road Safety, TSR aims to use its members' knowledge, data, technology, and global networks to promote safer roads and vehicles, safer driving behavior, and safer transport systems. The coalition launched on November 13, 2014 at the U.N.'s New York headquarters. Initial members also included AT&T, Chevron, Facebook, Walmart, Ericsson and PepsiCo, iHeartMedia and Tesla.

The coalition is associated with an expert panel that includes road safety professionals from academia, NGOs, governments and various international foundations. These experts will provide independent research and serve as one of the platforms through which TSR will take action. As a result of the coalition's insights, AIG will have additional tools to help clients and employees improve their safety on the road. As co-chair, AIG will also encourage other like-minded companies to join in the coalition's efforts.

## Conclusion

The human and financial costs of the growing number of road accidents and injuries are too great to ignore. AIG pledges to help tackle the issue of road safety by working with like-minded organizations in the public and private sector, educating drivers about safe driving behaviors, supporting road safety research projects, and encouraging the development of innovative technologies.

Together we can bring on better tomorrows ... and safer roads.



Bring on tomorrow

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