2010 – 2012

# LEADING THE WORLDWIDE MOVEMENT TO IMPROVE ROAD SAFETY

Bloomberg Philanthropies

*Photo Credit – R. Thom, EMBARQ*

# A COMMITMENT TO ROAD SAFETY

Bloomberg Philanthropies is committed to creating healthier, safer lives across the globe. Reducing preventable road traffic deaths and injuries is a key component of our work. Without intervention, road traffic crashes will kill 1.3 million people this year alone, and cause 20-50 million severe injuries. This is unacceptable.

Fortunately, proven interventions to reduce deaths and injuries from road traffic crashes exist. In 2010, we partnered with six organizations to develop and promote proven policies to reduce road traffic deaths and injuries. These interventions include increased seat-belt and helmet use, speed reduction, improved drinking and driving laws, safe sustainable urban transport, and improved road infrastructure. Through our strategic partnerships and a $125 million investment, we are helping governments in ten low- and middle-income countries implement these interventions.

Over the last three years, we've seen a number of positive outcomes through our work with nongovernmental organizations and governments. We estimate that at least 12,670 lives will be saved based on our early accomplishments. But there is still much work to be done. The United Nations has declared 2011–2020 the Decade of Action for Road Safety, and we look forward to contributing to continued success around the world in the years ahead.

Michael R. Bloomberg

Each year, road traffic crashes kill 1.3 million people and between 20–50 million suffer severe injuries.

By 2030, road traffic fatalities will be the fifth leading cause of death globally.

*Photo Credit – E. Krug, WHO*

**Children wait to cross the road in Kenya**

# THE BLOOMBERG GLOBAL ROAD SAFETY PROGRAM FOCUSES ON 10 COUNTRIES THAT ACCOUNT FOR MORE THAN 600,000 ROAD TRAFFIC DEATHS ANNUALLY.

## 2010–2012 RESULTS IN 10 BLOOMBERG TARGET COUNTRIES

**1.6 BILLION** People covered by strengthened road safety laws

**13,300** Professionals trained on road safety interventions, including police and public health officials

**5,500** Miles of high-risk roads assessed and improvements recommended

**12** Media campaigns initiated targeting 65 million people

**5** Countries passed or strengthened road safety laws

**Traffic chaos in Rajasthan, India**

## THE COST OF ROAD TRAFFIC CRASHES

Low- and middle-income countries account for 48% of the world's vehicles, but over 90% of the world's road traffic fatalities occur in these countries.

Low- and middle-income countries are disproportionately affected by road traffic injuries and fatalities, which place an immense burden on health systems, victims, and victims' families. The economic cost of road traffic crashes to low- and middle-income countries is at least $100 billion a year.

# BLOOMBERG PHILANTHROPIES SUPPORTS ROAD SAFETY INITIATIVES BECAUSE

- The need is urgent – the World Health Organization estimates that road traffic fatalities will be the 5th leading cause of death by 2030.
- Road traffic crashes are preventable with effective, evidence-based interventions.
- Road safety is an underappreciated global health concern.
- Monitoring and evaluation of road safety interventions is possible.

# UN DECADE OF ACTION FOR ROAD SAFETY 2011–2020

The UN General Assembly proclaimed the UN Decade of Action for Road Safety 2011-2020 in a landmark Resolution co-sponsored by 100 countries. Launched on May 11, 2011, the Decade of Action aims to "stabilize and then reduce" global road traffic fatalities by 2020.

*Photo Credit – FIA Foundation*

**Mayor Bloomberg with Janette Sadik-Khan, Commissioner of the New York City Department of Transportation, and Ban Ki-Moon, Secretary General of the United Nations, launch the Decade of Action for New York City on May 11, 2011.**

# HOW WE WORK TO SUPPORT GLOBAL ROAD SAFETY

To reverse global deaths and injuries from road traffic crashes, the Bloomberg Global Road Safety Program committed $125 million over five years (2010–2014) to support proven and effective interventions in ten low- and middle-income countries. These countries make up almost half of road traffic fatalities globally. Interventions include increased seat-belt wearing, speed reduction, improved drink driving laws and enforcement, helmet wearing, sustainable urban transport, and improved road infrastructure.

## The Bloomberg Global Road Safety Program Strategy

1. **Support** public and not-for-profit efforts to implement effective road safety laws;
2. Enhance professional and front-line worker **training**, especially enforcement of laws;
3. Incorporate **safe sustainable transport** and reduced emissions in urban planning;
4. Create global resources for **advocacy**;
5. **Improve infrastructure** projects through road safety assessments;
6. **Monitor and evaluate** traffic related deaths, injuries, and policy effectiveness;
7. **Review legislation** to support state of the art improvements of road safety laws; and
8. Run hard-hitting **mass media campaigns**.



*Photo Credit – M. Peden, WHO*

**Vietnamese children learn about the importance of wearing helmets**

*Photo Credit – Handicap International, Belgium*

**Cambodian family without helmets**

# OUR PARTNERS

Association for Safe International Road Travel

EMBARQ

Global Road Safety Partnership

Johns Hopkins Bloomberg School of Public Health

World Bank Global Road Safety Facility

World Health Organization

# SEATBELTS

Wearing a seat-belt reduces the risk of fatality among front seat passengers by 40–50% and 25–75% for rear seat car occupants.

**Bloomberg-funded partner organizations have worked to increase seat-belt wearing rates in the target countries.**

*Photo Credit – Z. Vapur, WHO*

**Driver in Afyon, Turkey**

- In **Egypt**, NGOs are working to raise awareness about the importance of seat-belt use.
- Following a strong social marketing campaign and increased police enforcement in Ivanovo, **Russia**, seat-belt wearing rates increased from 48% in April 2011 to 74% in July 2012.
- In **Turkey**, federal law does not require commercial drivers or government officials to wear seat-belts. However, the Governors of Afyon and Ankara issued local decrees mandating all car occupants to wear seat-belts. In Afyon, between November 2010 and May 2012, the seat-belt wearing rates increased from 4% to 49%.
- Bloomberg partners have led efforts to raise awareness about the importance of seat-belt wearing in **Mexico**.



## CASE STUDY Hard-Hitting Russian Media Ads Increase Seat-Belt Use

**"Do Not Break the Line of Life"**

To promote increased seat-belt use, Bloomberg partner, the World Health Organization, aired a mass media campaign in late 2010 in the Lipetsk region of Russia. Seat-belt use increased nearly 50% following the campaigns, from 52% in October 2010 to 75% in August 2012. Additionally, Bloomberg partner, the Global Road Safety Partnership, conducted police trainings — reaching nearly 300 police officers — to improve enforcement.

Using the slogan, "Do not break the line of life!", the seat-belt campaign aimed to reduce risks of death and serious injuries from road traffic crashes. In addition, trainings on effective road safety interventions, including seat-belt use, were provided to road police, region administration, education departments, public relations agencies, and media.

The problem of seat-belt underutilization requires a coordinated effort. This campaign mobilized experts and stakeholders in transport, health, business and public sectors to achieve success. The social marketing campaign and other awareness building efforts, followed by strong police enforcement, significantly increased seat-belt use in Lipetsk.

*Photo Credit – P. Polurotov, agency Master Media*

**Russia's "Life is more important than speed" campaign, encouraging drivers to adhere to the 40 km/h (25 mph) speed limit**

# SPEED

Higher speeds lead to an increased risk of a crash and greater probability someone will be killed or seriously injured. Research on effective speed management indicates that speed limits on urban roads should not exceed 50km/h (30 mph).

**Bloomberg-funded partners and in-country collaborators have achieved positive outcomes in reducing speed:**

- Following strong social media campaigns and increased police enforcement, rates of speeding reduced from 32% in May 2011 to 9% in July 2012 in Dalian **China**, and from 47% in July 2011 to 33% in May 2012 in Lipetsk, **Russia**.
- Speeding in Thika, **Kenya** went from 69% in October 2010 to 40% in June 2012 following increased police enforcement and use of speed cameras.
- **Brazil** passed a national resolution in 2011 allowing speed camera installation without publicly announcing the exact location, enhancing police efforts to control speed.
- Police installed 24 speed cameras along the Ring Road of Cairo, **Egypt** in 2011.
- The Governors of Afyon and Ankara, **Turkey** issued local decrees in March and August of 2012, respectively, mandating all drivers to obey speed limits.

*Photo Credit – Global Road Safety Partnership*

**Cambodian woman being tested with breathalyzer**

# DRINKING AND DRIVING ENFORCEMENT

Drinking and driving increases both the risk of a crash and the likelihood that a death or a serious injury will occur. The risk of involvement in a crash increases significantly with a blood alcohol concentration above .04%. Global standards for drinking and driving laws set standards at less than .05% for adult drivers and below .02% for novice drivers.

**Bloomberg-funded partner organizations have worked to enforce drinking and driving laws in target countries and reduce drinking and driving rates:**

- Following a strong social media campaign and increased police enforcement, drinking and driving rates in Phnom Penh, **Cambodia** dropped from 10% in October 2010 to nearly 0% in August 2012, and in Ninh Binh, **Vietnam**, the rates decreased from 23% in November 2010 to 8% in December 2011.
- A new drinking and driving law was introduced in Guadalajara, **Mexico** in 2010 to reduce the legal blood alcohol concentration from .15% to .05%.
- In **Brazil**, an amendment to the drink-driving law (Ley Secca or "Dry Law") was passed in 2012 to strengthen enforcement.
- **China** criminalized drinking and driving in 2011 after passage of a zero tolerance law.

*Photo Credit – K. Larson, Bloomberg Philanthropies*

**Police administer breathalyzer to test driver for blood alcohol concentration in Cambodia**

- In 2011, a drinking and driving social marketing campaign was conducted for the first time in two cities in **India** – Hyderabad and Jalandhar.

# HELMETS

Wearing a helmet is the single most effective way of reducing head injuries and fatalities resulting from motorcycle crashes. Helmet use decreases risk of injuries by 70% and deaths by 40%.

**Bloomberg-funded partner organizations have worked to increase helmet-wearing rates.**

- Following a strong social media campaign and increased police enforcement in Phnom Penh, **Cambodia**, helmet wearing rates increased from 32% in July 2010 to 57% in September 2012.
- The **Kenya** Bureau of Standards has adopted internationally-recognized motorcycle helmet quality standards.
- In Hyderabad, **India**, partners are educating the police and the public in preparation for enforcing the national law.



*Photo Credit – FIA Foundation*

*Photo Credit – M. Peden, WHO*

**Before and after the 2007 helmet law, Vietnam**

## CASE STUDY Successful Helmet Law in Vietnam, 2007

Prior to Vietnam's December 2007 comprehensive helmet law, only 40% of motorcycle riders wore helmets in Vietnam. The helmet law was passed and implemented with support from the highest levels of the Communist Party and Government (Prime Minister). The original law required all drivers and passengers to wear a helmet, but was ambiguous in how it applied to children and the correct fastening of helmets. These two loopholes were closed in 2010 where children from 6 years of age were mandated to wear helmets and in 2008 where police were empowered to consider an unfastened helmet in the same manner as if no helmet was worn at all and penalize the driver and passenger accordingly.

The law went into effect on December 15, 2007 and helmet use more than doubled to 95% in 2009 and remains greater than 90% today.

Surveys show that 82% of helmets being worn and 54% of new helmets on the market failed to meet national quality standards. Bloomberg Philanthropies is supporting social marketing campaigns to increase demand and utilization of quality helmets while also supporting legislative action to give police the power to enforce helmet standards.

Photo Credit – EMBARQ

**New auto-rickshaw fleet in Rajkot, India**

## CASE STUDY Rajkot, India Launches the Nation's First Modern Auto-Rickshaw Fleet

The city of Rajkot, India launched the country's first modern fleet of auto-rickshaws in November of 2012. This fleet will help unify auto-rickshaw service under one brand (G-Auto) and operational structure in Rajkot, which has a population of 1.3 million people. There are roughly 10,000 auto-rickshaws in Rajkot, 150 of which are part of the G-auto brand, with the goal of scaling up to 1,000 participating auto-rickshaws by 2013 and eventually all 10,000 auto-rickshaws. Bloomberg partner, EMBARQ India, is working with the municipality of Rajkot to improve safety, service, and environmental impacts. The new dispatching service will help reduce unnecessary trips to avoid exposure to risk of traffic crashes, as well as lead to improvements in auto-rickshaw vehicles and infrastructure. Rajkot's G-Auto model could be scaled up across India, where 140 million auto-rickshaw trips are completed each day. Already, the city of Surat has replicated Rajkot's innovation with its own pilot. Other cities in India will follow.



Photo Credit – H. Rios, EMBARQ

Bus rapid transit is a term applied to a variety of public transportation systems using buses to provide faster, more efficient service than conventional bus lines. These systems use high-capacity buses in exclusive lanes.

**Macrobus corridor in Guadalajara, Mexico**

## SUSTAINABLE URBAN TRANSPORT

Mobility is made safer by reducing car travel and moving people through safely designed pedestrian or bicycle lanes and mass transportation. High impact crashes can be significantly reduced by improvements that protect all road users, especially pedestrians and bicyclists, such as better road crossings, clearly designed intersections, and speed bumps.

One example of mass transportation is the bus rapid transit system, which can reduce fatalities and crashes by 40-50% on affected corridors. The Macrobus in Guadalajara, Mexico is proof that investing in sustainable urban transport saves lives. Between 2007 and 2011, there was a 9% reduction in road traffic crashes in Guadalajara, but in the Macrobus corridor, crashes were reduced 49% in the same period.

# SAFE ROAD INFRASTRUCTURE

Road safety infrastructure improvements can reduce the risk of road traffic fatalities and injuries by 25–40% for all road users, including car occupants, motorcyclists, bicyclists, and pedestrians. Such improvements include: widening shoulder lanes, improving intersections, and installing medians, side barriers, crosswalks, and lane markings.

The Bloomberg Global Road Safety Program has saved lives by investing in safe road infrastructure. With a $50 million infrastructure investment made by the Russian government in Mari El Republic, 200 deaths and 2,000 injuries will be averted in the next 20 years. In four states in India, 560 lives can be saved from about $500 million in government infrastructure investments.



*Photo Credit – International Road Assessment Program*

**Five-star versus two-star roads in India**

## CASE STUDY Assessing Road Infrastructure and Providing Recommendations for Improvements in India

Bloomberg Philanthropies' partner, the World Bank Global Road Safety Facility, is collaborating with the International Road Assessment Program (iRAP) to improve high-risk roads in four Indian states. The project is designed to assist the governments of Andhra Pradesh, Assam, Gujarat, and Karnataka in assessing road infrastructure-related risk on over 1,800 miles of roads, and make recommendations for improvement. iRAP assessments identified many roadside hazards, including dangerous objects within 16 feet of the shoulder lane, limited roadside protections, and poor safety provisions for vulnerable road users with insufficient pedestrian footpaths, crosswalks, and bicycle lanes.

Safer Road Investment Plans were developed for the four states and they found that a combined investment of 27 billion rupees ($513M USD) would save 11,300 lives and avert 113,000 serious injuries equivalent to 120 billion rupees ($2.27B USD) in crash costs avoided over the 20 year life of the infrastructure improvements.

iRAP recommendations are helping shape the design of 343 miles of roads in Karnataka. This approach has resulted in a reduction of the percentage of poorly rated roads (1- or 2-stars) from 86% to 2% for vehicle occupants, and from 100% to 12% for pedestrians. It is estimated that these improvements will prevent approximately 137 fatal crashes/year, representing a 55% reduction across the surveyed network.

# GLOBAL STATUS REPORT ON ROAD SAFETY 2009

Funded by Bloomberg Philanthropies through the World Health Organization, the 2009 Global Status Report on Road Safety is the first standardized assessment of the status of road safety in each country in the world. The results provide a benchmark that countries can use to assess their road safety position relative to other countries, while internationally the data is a global "baseline" against which progress over time can be measured. The next Global Status Report on Road Safety will be released in 2013.

The report includes country profiles, which highlight a selection of information about road safety as reported by each of the participating 178 nations. The Global Status Report shows that no country can afford to assume that its road safety work is complete.

## Key Findings from 2009 Report:

1. Low- and middle-income countries have higher road traffic fatality rates than high-income countries;
2. Almost half of those who die in road traffic crashes are vulnerable road users;
3. Adoption and enforcement of traffic laws is weak in many countries, and comprehensive laws on speed, drinking and driving, helmets and seat-belts are needed to reduce behavioral risk factors;
4. A coordinated multi-sectorial response is needed to improve road safety, with involvement of health, transport, and police sectors; and
5. Reliable data on road traffic fatalities and injuries is needed from all countries to better assess, target, and monitor interventions.

# BLOOMBERG GLOBAL ROAD SAFETY PROGRAM 2010 2012

**12,670 Lives saved** over 5 year project period

**13,300 Professionals** trained on road safety interventions

**6 Countries** tested hard-hitting road safety ads

**1.6 Billion people** covered by new road safety laws

**5,500 Miles of high-risk roads** assessed and improvements recommended

**$440 Million** committed to make road improvements

**250 Miles** bus rapid transit corridors assessed and improvements recommended covering 77 million people.

**5 countries** passed new or improved road safety laws.

**8 Countries** implemented 12 media campaigns covering 65 million people

**31 Scientific articles** published in peer-reviewed journals

**12 Grants** in 7 countries to enhance advocacy

**1.7 Million observations** made on drinking and driving, speed, and seat-belt & helmet use

**41,000** roadside interviews completed

**353 Journalists** trained from 9 countries



This report reflects the Bloomberg Global Road Safety Program progress from 2010 through 2012.

For more information, please contact **info@bloomberg.org**.