

## Policy and practice

# INTERSECTORAL ACTION TO IMPROVE ROAD SAFETY IN TWO REGIONS OF THE RUSSIAN FEDERATION

Viktor Kondratiev,<sup>1</sup> Vitaliy Shikin,<sup>2</sup> Vladimir Grishin,<sup>3</sup> Sergey Orlov,<sup>4</sup> Vladimir Klyavin,<sup>5</sup> Elena Yurasova,<sup>6</sup> Dinesh Sethi,<sup>7</sup> Margaret Peden,<sup>8</sup> Shivam Gupta,<sup>9</sup> Luigi Migliorini<sup>6</sup>

<sup>1</sup> Ministry of Internal Affairs of the Russian Federation, Moscow, Russian Federation

<sup>2</sup> Lipetsk Regional Administration, Lipetsk, Russian Federation

<sup>3</sup> Ivanovo Regional Duma, Ivanovo, Russian Federation

<sup>4</sup> Research Centre ROMIR Lipetsk, Russian Federation

<sup>5</sup> Lipetsk State Technical University, Russian Federation

<sup>6</sup> World Health Organization Country Office, Moscow, Russian Federation

<sup>7</sup> World Health Organization Regional Office for Europe, Copenhagen, Denmark

<sup>8</sup> World Health Organization, Geneva, Switzerland

<sup>9</sup> Johns Hopkins University, Baltimore, United States of America

Corresponding author: Dinesh Sethi (email: Din@euro.who.int)

## ABSTRACT

We report on an intersectoral road safety project implemented in two Russian regions between 2010 and 2014. It comprised social marketing coupled with enhanced enforcement of safe behaviours. It resulted in an increase in the use of seat belts and child car restraints by 25–41 and 33–69 percentage points, respectively, and reduced speeding by 8–17 percentage points. This project demonstrated how investing in collaboration between the transport, justice/interior and health sectors at both the national and regional levels was essential to achieving the outcomes of the project. We discuss the other lessons learnt and next steps for national implementation.

**Keywords:** ROAD TRAFFIC INJURY, INTERSECTORAL COLLABORATION, PROGRAMME EVALUATION, PUBLIC POLICY, PROJECT IMPLEMENTATION

## BACKGROUND

The *World report on road traffic injury prevention* highlights road traffic injury as an important global public health problem. Every year, 1.2 million people are killed and around 50 million are injured (1). In the European Region, 92 000 people were reported to have died in 2010 from road traffic injury, which is the leading cause of death in children and young people aged 5–29 years (2). The *World report* proposed multisectoral and evidence-based prevention to reduce this burden, much of which is borne by low- and middle-income countries (1). World Health Assembly resolution WHA57.10 on road safety and health called

on Member States to implement the recommendations of the *World report* (3). The momentum for the policy was built up when the United Nations (UN) General Assembly requested the Russian Federation to host the First Global Ministerial Conference on Road Safety in 2009 through resolution 62/244 in 2008 (4). At this meeting, the Moscow Declaration was adopted, calling for the Decade of Action for Road Safety 2011–2020. This was later endorsed by UN General Assembly resolution 64/255 in 2010 (5). The aim of the Decade of Action is to reverse the increasing trend in road-traffic crash deaths, particularly in low- and middle-income countries. It calls for coordinated action across different sectors and across society to reduce the large burden from road crashes. Such an approach is also

underpinned by Health 2020: the European policy for health and well-being (6). Among the measures proposed by the Decade of Action are improving road user behaviour through the enactment of laws for wearing of helmets, use of child car restraints and seat belts, and limits on speed and drink driving, and enforcement of these.

As part of the response to this burden, a consortium of partners, including the World Health Organization (WHO), was funded to implement good road safety practices in 10 low- or middle-income countries with the support of Bloomberg Philanthropies. WHO launched a five-year project in 2010, including in the Russian Federation (7). Road safety is a political priority in the Russian Federation and, in 2010, road crashes were reported to have caused the premature deaths of 26 567 people (2,8). We report on the achievements and lessons learnt from implementing the project through intersectoral collaboration in the Russian Federation between 2010 and 2014.

## LOCAL CONTEXT

National partners in the Russian Federation were approached to obtain their commitment to the project. These comprised high officials of the Ministry of Health, which leads in providing post-crash care, the Ministry of Transport, which leads on transport policy and road infrastructure, and the Ministry of Internal Affairs, which has the lead responsibility for road safety. The project methodology required implementation in two regions. Lipetsk and Ivanovo regions were selected after consultation with the Ministry of Internal Affairs and the local governments. Both regions fulfilled the following inclusion criteria: high levels of road traffic deaths, local concern about road safety, a pledge of commitment to the project objectives signed by the governor of the region, strong commitment from the regional administration, road traffic police and health departments, enthusiastic academic partners, and ease of accessibility from Moscow for project implementation and monitoring. The Ministry of Interior, in consultation with partners, advised on seat-belt use for car occupants and speeding as the risk factors for modification by the project; use of child car restraints was subsequently introduced in November 2013. These were selected because they cause a significant burden and because

their modification is achievable, acceptable and sustainable (1,5). The inclusion of drink driving as a risk factor was debated but rejected on contextual and pragmatic grounds. In keeping with the rationale of the project, successful implementation of the tools and knowledge developed in the pilot regions would lead to their more widespread/national application.

National, regional and international partners worked collectively to achieve the project goals. The Global Road Safety Partnership worked with local partners to strengthen the capacity of regional traffic police. The Johns Hopkins University International Research Trauma Unit worked with Ivanovo State Polytechnic University and Lipetsk State Technical University to monitor and evaluate the interventions (7). WHO took the lead in developing social marketing campaigns, which were aligned with enhanced enforcement.

## APPROACH

The goal of the road safety project in the Russian Federation was to improve road safety in the two pilot regions by: (i) increasing seat-belt use by vehicle occupants in both the front and rear seats; (ii) decreasing the proportion of cars that exceeded the speed limit on urban and interurban roads and highways; and (iii) increasing the use of child car restraints. These required a combination of several actions – implementing international best practices in safety standards after reviewing the literature, developing and implementing social marketing campaigns to modify these risk behaviours, enhancing enforcement to reinforce the messages of the social marketing campaign, building local police and administrative capacities to enable this, engaging the media to disseminate the message, and running courses on first-aid for driving-school instructors and road traffic police.

Capacity-building workshops were held for road traffic police on the enforcement of traffic laws to modify risk behaviours, and road policing using a train-the-trainer approach. Multisectoral round table discussions were also held with local road safety stakeholders from local government, police, civil society organizations and the private sector to debate and identify local road safety challenges and solutions. A total of 40 such training events were held over the study period, involving

855 participants in the two regions. Periodic cross-sectional surveys were conducted during the baseline and intervention phases to measure changes in the risk factors, with feedback to the regional groups to monitor and evaluate the interventions. For speed, there were four rounds of roadside measurements in Lipetsk region and 12 rounds in Ivanovo region, and a total of 30 000 vehicles were checked for speed. For wearing of seat belts, 17 rounds were conducted in Lipetsk region and 15 rounds in Ivanovo region, with 30 000 roadside observational assessments. Intersectoral coordination of the project was achieved through international and national/regional project advisory boards, which met regularly to monitor and assess project implementation, with an annual project review board meeting to evaluate workplan implementation conducted by the different sectors. At the regional level, project implementation was done through multisectoral road safety coordination commissions chaired by the respective governors or vice-governors (9,10).

The hard-hitting social marketing campaigns developed for and used in this project represented a novel approach for the Russian Federation in the field of road safety and public health, whereby risk factors were targeted to modify road user behaviour (11). These campaigns showed that the shockingly adverse consequences of crashes could be avoided by safe road behaviours. Their implementation required coordination with enhanced enforcement campaigns, consisting of increased police checks on speeding and safety equipment use, widespread use of mobile- and fixed-speed cameras, and strict implementation of penalties. Though the federal programme "Improving road safety in 2006–2012" has a component on public information campaigns, this has not been given much priority nationally and does not include social marketing campaigns targeted at risk factor modification (12).

## RISK COMMUNICATION

The regional marketing agencies that developed the social marketing campaigns targeted them at specific audiences at higher risk of road crashes (e.g. young drivers), and for specific risk behaviours (e.g. speeding) on the road, based on the data analysed. Barriers to safe behaviours and motivation of the target

audiences were studied through focus groups (4–10 per risk factor per region), which were then quantified in subsequent surveys to study knowledge, attitudes and practices (KAP). Preferences for the medium of communication and media channels were also studied (600–1600 respondents per KAP study per region). These study reports were then used to develop key messages, slogans, visual and information materials, and dissemination plans for the campaign, as well as implementation strategies. Post-campaign evaluations were conducted using KAP studies. Social marketing campaigns were thus developed for the risk factors and implemented biannually in the two project pilot regions throughout the project implementation period 2010–2014. A multimedia approach was used for the social marketing campaigns, and included television, radio, billboards, advertisements on transport, leaflets and the social media. The focus and timeframe of each campaign was approved by the regional coordination commissions. Implementation was carefully monitored and coordinated with enforcement campaigns. The campaigns included one on seat belts "Do not interrupt the line of life," on speed "Life is more valuable than speed," and on child car restraints "Fasten or lose!"

## RELEVANT CHANGES

Our evaluation showed that, on average, there was 60–80% coverage of the target audience by the campaigns. Post-campaign KAP surveys showed that self-reported levels of seat-belt use increased among drivers, as did self-reported compliance with speed limits. Risk behaviours were also formally evaluated using regular 3-monthly roadside measurements. In both the regions, the levels of use of seat belts among all car occupants and compliance with speed limits increased significantly for the duration of the project (9, 10). For all occupants, seat-belt use increased from 52.4% in 2010 to 77.4% in October 2014 in the Lipetsk region (for drivers this increased from 55.7% to 79.4%), and from 47.5% to 88.7% in the Ivanovo region (among drivers from 52% to 92.2%) (Table 1). Use of child car restraints increased from 20.9% in October 2010 to 54.1% in October 2014 in the Lipetsk region, and from 20.4% in April 2011 to 89.4% in October 2014 in the Ivanovo region.

The proportion of vehicles exceeding the speed limit decreased from 47% in 2011 to 27.3% in August

TABLE 1. EVALUATION OF THE USE OF SEAT BELTS, CHILD CAR RESTRAINTS AND PERCENTAGE OF VEHICLES ABOVE THE SPEED LIMIT IN LIPETSK AND IVANOVO REGIONS IN 2010<sup>a</sup> AND 2014<sup>b</sup>, BEFORE AND AFTER THE SOCIAL MARKETING AND ENFORCEMENT CAMPAIGNS, RESPECTIVELY.

Region	Seat-belt use for all occupants (%)		Rear seat-belt use (%)		Child car-restraint use (%)		Vehicles above speed limit (%)	
	2010/11 <sup>a</sup>	2014 <sup>b</sup>	2010 <sup>a</sup>	2014 <sup>b</sup>	2010/11 <sup>a</sup>	2014 <sup>b</sup>	2010 <sup>c</sup>	2014 <sup>b</sup>
Lipetsk	52.4	77.4	7.3	36.7	20.9	54.1	47	30.4
Ivanovo	47.5	88.7	22.15	47.15	20.6	89.4	54.7	46.7

<sup>a</sup> Baseline studies for seat belts and child car restraints: October 2010 in Lipetsk region, April 2011 in Ivanovo region

<sup>b</sup> Evaluation conducted in October 2014 for seat belts, child car restraints and speed for both regions

<sup>c</sup> Baseline studies for speed: July 2011 in Lipetsk region, November 2011 in Ivanovo region

2013 in the Lipetsk region, then increased to 36.3% in November 2013 and again decreased to 30.4% in October 2014. In the Ivanovo region, it decreased from 54.7% in March 2012 to 33.4% in July 2013, increased to 46.2% in October 2013 and remained at 46.7% in October 2014 (9,10). The increase in the proportion of vehicles exceeding the speed limit in both regions may have been due to changes in national legislation that abolished the penalty for exceeding the speed limit by up to 20 km/h in September 2013, as we found that the majority of violations were within this limit of 20 km/h above the speed limit.

The number of deaths in road crashes in 2013 decreased in both regions compared to 2012: 262 against 271 in the Lipetsk, and 153 against 187 in the Ivanovo regions (13).

## LESSONS LEARNED

The need for intersectoral collaboration for the successful implementation of road safety programmes has been emphasized by the UN resolutions on improving global road safety (4,5). This project demonstrated how investing in collaboration between the transport, justice/interior and health sectors at both the national and regional levels was essential to achieving the outcomes of the project. It required in-depth consultation with stakeholders nationally, and establishing coordination mechanisms at the international, national and regional levels, which engaged national and regional authorities, associations, social marketing companies and universities (14). Such a whole-of-society approach in

achieving public health gains has been emphasized in Health 2020 (6). Another important lesson from this project is the need for high-level political commitment (14), which was obtained from the Minister of the Interior and Minister of Health at the national level, and from governors at the regional level. This built on the high political importance given to road safety since the adoption of the UN resolution, and concern that road safety is a national problem (4,5). It resulted in the deputy governors closely following coordination and implementation of the project locally. An unexpected development during the project was the change in national legislation in September 2013, abolishing penalty for speeds in excess of 20 km/h of the speed limit. The legislative change was brought about by pro-speed road lobby groups in the national parliament, without prior consultation with the Ministry of Interior. This had an adverse effect on speed control and represented a temporary setback to the social marketing and enforcement campaigns in the pilot regions, as changes in federal law impacted regional implementation. Lessons learnt from this include the need for better engagement of political opposition groups and national parliament, and highlight the importance of a whole-of-society approach. Although the scope of this project focused on obtaining high-level regional authority commitment, this is an important lesson for similar projects in the future.

The outcomes of this project show how this systematic approach led to the successful modification of risk and increase in safe behaviours in car users in the Russian Federation. These intermediate indicators are strongly associated with the prevention of road traffic injuries and deaths

(1,2,8). Although the results show a downward trend in the number of deaths from road crashes in these two regions, data from a longer follow-up period and other sites are required before the improvement in mortality can be causally linked to the project. The results of this project reinforce existing knowledge that social marketing is an effective way to enhance awareness and change the behaviour of risk groups, if combined with strong laws and enforcement. This adds to the evidence base and is of particular relevance in the Russian context where these approaches are novel (1,12). A strong monitoring and evaluation arm was also built into the project. Based on direct observation of road-user behaviour, feedback was provided to local authorities, which influenced managerial decisions by road traffic police and emergency health services. Such an approach further improved engagement by the police, emergency medical services and local authorities.

The model developed for the two regions during this project was supported by the State Directorate for Road Safety and the Ministry of Interior, who have acknowledged the positive outcomes of the pilot project. Steps are being taken to disseminate the project tools and materials through workshops for heads of regional road traffic police, and to develop guides on key project components for dissemination to other regions of the Russian Federation. Other regions are being encouraged to use the materials and learn from the experience of the project within the frame of the federal targeted programme of road safety 2013–2020 (15).

The social marketing materials, measurement tools, capacity-building materials developed and information on organizational approaches have been stored on an accessible website to facilitate implementation of the programmes for speed control, and use of seat belts and child car restraints in other regions (16). Further, the lessons learnt from the project and materials developed will also be transferable to other countries of the Commonwealth of Independent States, where Russian is spoken.

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