The Role of the Motor Insurance Industry in Preventing and Compensating Road Casualties

Scoping Study Final Report

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The Role of the Motor Insurance Industry in Preventing and Compensating Road Casualties

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Summary

Over three quarters of a million people are killed and tens of millions injured on the roads in low income countries each year. Many, if not most, will come from poor households, particularly vulnerable to the risk of road trauma and its economic consequences. While road safety is traditionally focused on prevention activities, fair and timely compensation systems will help bereaved families and injured victims recover from the shock of a road crash. This scoping study is the Department for International Development's first investment in documenting the role of the motor insurance industry in road safety. The study has focused on third party insurance and while compensation efforts are a main concern of the review, the motor insurance industry's prevention activities are also covered.

The overall aim of the study was to identify how the motor insurance industry could assist in reducing the burden of road trauma in low Income Countries (LICs). With this overall aim in mind, important objectives were:

1. provide an overview of the motor insurance industry's efforts in promoting road safety and ameliorating the consequences of road collisions,
2. highlight good practice, and how procedures can be improved in LICs
3. review the implications of motor insurance for DFID policy, namely
   - protecting the livelihoods of the poor and
   - promoting safety through partnerships between insurance and safety organisations
4. identify any problem area which would justify further research efforts.
5. Identify next steps required in order to achieve the overall aim

Nine case studies were selected: British Columbia (Canada), New Zealand, Sweden, United Kingdom, and Victoria (Australia) as well as Costa Rica, Ghana, Karnataka (India), and South Africa. While information on the high-income case studies was collected primarily from published data and telephone interviews, in the low-income case studies, local counterparts collected information on the motor insurance system, compensation procedures and prevention activities. Additional information on other countries was collected, mainly via the internet and from insurance publications.

Insurance compliance is a problem for many countries worldwide, In the few low-income countries reviewed it was found to vary widely from 10 to 80 per cent. Several southern African countries collect third party injury insurance through a fuel levy and thus have been able to eliminate non-compliance. The report outlines how a similar system could be introduced elsewhere but if this is thought not possible, the report indicates how vehicle inspection and registration procedures can include a check for insurance cover.

Another key concern is the belief that few victims, especially the poor, receive compensation in low-income countries (a recent survey of 84,000 Bangladeshi households found 1% of fatal/seriously injured to have received insurance compensation). All third policy insurance systems in the low-income case studies were fault based and compensation systems suffered problems with high legal costs, as in fact did many of those in the high-income countries. The high-income case studies revealed a shift in focus from financial compensation to rehabilitation and recovery whereas the low-income case studies appear to be still focusing on financial settlements. The report describes how methods currently used in the most progressive HICs could be adapted by developing countries.

Investment by insurance providers in risk reduction varied widely between the countries. Several of the case studies had agreed voluntary donations to road safety programmes, but despite popular beliefs, none had a specified mandatory amount. The state insurance providers of British Columbia and Victoria invest in engineering and enforcement programmes with high economic

returns (British Columbia currently requires a 3:1 investment return in claim savings from its Road Improvement Program). Other countries, including the UK, do not offer a consorted approach to road safety and leave it to the discretion of individual insurance companies. Many of the state insurance providers could adapt methods used by Victoria, British Columbia and New Zealand to invest in life-saving activities.

The study has examined the implications of road crash insurance for DFID's policies relating to livelihoods and partnerships. The conclusions stress the need for better protection for road crash victims particularly the poor. Recommendations include improved empowerment to strengthen demand for better compensation and a greater focus on rehabilitation. Also the potential for the insurance industry to act as a partner in advocating and delivering safety improvements is highlighted.

In conclusion the study has provided an introductory overview to the insurance industry and how it can participate in reducing the risk and the consequences of road trauma. Based on this preliminary review, draft Motor Insurance Loss Prevention and Road Safety Guidelines have been developed. The study has drawn attention to the plight of the poor after involvement in road crashes and it is recommended that a research study is carried out of how the poor can be better protected and what are the impacts of different practices. It is also important to build on these guidelines and the report recommends a follow up project to develop them in participation with local insurers and to disseminate best practice.

List of Acronyms

ABI	Association of British Insurers
ACC	Accident Compensation Corporation (NZ)
ACPO	Association for Chief of Police Officers
ASIRT	Association for Safe International Road Travel
BC	British Columbia
BMA	British Medical Association
BPA	Suisse de prevention des accidents
CCTC	Closed Circuit Television
CEA	Commission of European Insurance
COMESA	Common Market for East and Southern Africa
CTP	Compulsory Insurance
DFID	Department for International Development
ETSC	European Transport Safety Council
EEVC	European Enhanced Vehicle-Safety Committee
FEVR	European Federation of Road Victims
FSR	Fonds de securite
GRSP	Global Road Safety Partnership
HIC	High Income Countries
ICBC	Insurance Corporation of British Columbia
IIHS	International Institute of Highway Safety
IN	Information Note
INS	National Insurance Institute (Costa Rica)
IRTAD	Institute of Road Transport and Development
LIC	Low Income Countries
MADD	Mothers Against Drink Driving
MIB	Motor Insurers Bureau
MTA	Motor Transport Association
NCD	No Claims Discount
NHTSA	National Highway Traffic Safety Administration
NIC	National Insurance Commission
NRSC	National Road Safety Council
NZ	New Zealand
RAF	Road Accident Fund
RCAR	Research Council for Automobile Safety
RoSPA	Royal Society for Prevention of Accidents
RTIC	Swedish Traffic Injuries Commission
RTSA	Road Traffic Safety Association
SIC	State Insurance Corporation
SGI	Sasketchewan Government Insurance
TAC	Transport Accident Commission (Victoria)
TPI	Third Party Insurance
TRACS	Transport and Road Abstracting and Cataloguing System
TRL	Transport Research Laboratory
UFECA	‘Unforgivable fault as the exclusive cause of the accident’
UK	United Kingdom
VALT	Traffic Safety Committee of Insurance Companies
VRC	Vehicle Research Centre

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Currency conversion

Currency conversion: USD$ One dollar equals

Country	Rate
Costa Rica Colon	332.0
Ghana Cedi	7250.0
India Rupee	48.6
South Africa Rand	11.4
Australia Dollar	2.0
Canada Dollar	1.6
European Euro	1.14
New Zealand Dollar	2.4
Sweden Kronor	10.4
United Kingdom Pound	0.7

Source: Oanda.com (Feb 2002)

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1 Introduction

With 85 per cent of all road deaths worldwide estimated to occur in low-income countries (LIC) where road safety capability is just being developed, the scale of the human tragedy is unlikely to decrease in the forseeable future. While the traditional focus of road safety interventions has been on prevention activities, i.e. 'prevention is better than cure', this has often led to a lack of, or at least a belated, consideration of those casualties not prevented.

As the basic objective of insurance systems is to compensate for losses incurred, the motor and personal injury insurance sector have a potentially key role in ameliorating the consequences of those casualties and crashes not avoided. They will also have an economic interest in the reduction of outlays, via a reduced number of casualties and crashes.

1.1 Aim

The aim of this scoping study is to highlight how the motor insurance industry could assist in reducing the burden of road trauma in LICs, with information gathered from both high income countries (HICs) and LICs. It should be made clear that this is a small 'starter' study, which included the development of a proposal for follow-up research.

Key issues to be considered were highlighted in the inception phase and included the following:

- Existing and potential influence of the motor insurance industry
- Fair and timely compensation of road victims
- Promotion of safe driving and discouragement of unsafe driving by insurers
- Funding of road safety activities from motor insurance
- Likely investment in road safety when faced with a loss making business

1.2 DFID policy

This study aims to promote the United Kingdom's (UK) Department for International Development's (DFID) policy in two basic ways, the most important being the Sustainable Livelihoods approach and its focus on the poor. With pedestrians being the most common victim in many countries, especially in urban centres, the poor are assumed to be at greater risk to road crashes. Preliminary findings from the DFID research on identifying the socio-economic impacts of road crashes (Updating the Road Crash Costing Methodology), is confirming this, i.e. Bangladeshi urban poor account for twice as many road deaths as their population share. The role of compensation is being reviewed in relation to how households cope with the shock of a road crash and struggle to recover.

As motor insurance is commonly provided by the private sector, this study also promotes another aim of DFID, namely the increased participation of the business sector in road safety. This scoping study proposal was supported by the Global Road Safety Partnership (GRSP). GRSP was established to promote the involvement of the business sector in delivering road safety and the development of a knowledge base to assist all those working in road safety. Insurance has been a key partner is the delivery of road safety in some countries. This study, the first review of motor insurance and road safety including LICs, aims to contribute to both of these GRSP key objectives and help identify good practice.

1.3 Report structure

After an explanation of the background (Chapter 1) and the methodology (Chapter 2), the scoping study's main research findings are presented in Chapters 3-8 and their content is summarised below:

Chapter 3 reviews the current legal requirements for motor insurance in the case studies and the problems with insurance compliance. The structure of the insurance industry in the case studies is also summarised as is (in some instances) the loss-making tendency, which will affect the interest and ability of the insurance industry to invest in road safety. Pricing incentives, i.e. novice driver surcharges, etc. are also discussed.

Chapter 4 reviews the legal compensation requirements and liability issues before discussing the problems with service delivery. Recent reforms are also highlighted, including the shift in focus from financial compensation to victim recovery and rehabilitation in several HICs.

Chapter 5 discusses the participation of the motor insurance industry on national road safety councils/boards as well as the efforts motor insurers have made, either collectively within a country or as individual companies, to shape road safety policy.

Chapter 6 focuses on prevention activities and what the insurance industry has undertaken to help reduce future losses. Funding and sponsorship of road safety activities are reviewed with examples of insurance investment in engineering and enforcement as well as the more frequent education and publicity campaigns. Available information on the effectiveness of these interventions and the evaluation methods is also included.

Chapter 7 summarises motor insurance's contribution to road safety research. Insurance sponsored international research associations as well as national organisations are described as are some of the research studies and the need for insurance data.

While examples of good practice are included in each chapter, the study's main conclusions are presented in Chapter 8. Key references are highlighted and a full bibliography is presented in Chapter 9. The appendices attached here begin with a copy of the questionnaire, which was used as a guide with the case studies. A contact database is presented in Appendix B with contacts from over 50 countries.

The proposed Motor Insurance Loss Prevention and Road Safety Guidelines are included in Appendix A. A possible follow-up project is proposed, which would allow these Guidelines to be discussed, revised and ideally adopted by LICs.

The ten individual case studies have been compiled in a separate working document for internal purposes (Working Paper: Motor Insurance and Road Safety Case Studies). While the same questionnaire was used (Appendix C) in all case studies, the availability of information and the road safety prevention activity influenced the length and detail of the case study summaries.

1.4 Study Limitations

In addition to being the first attempt by TRL or DFID to review the role of motor insurance in delivering road safety, this scoping study was also limited by its modest size. Despite these restrictions, the study attempted to cover a wide range of issues (coverage, compensation, prevention, research), all of which easily justify their own studies. Case studies included LICs and HICs with information dependent on local counterparts in the LICs and what was readily available in HICs. This affected the consistency of the information collected and limited the study's ability to draw conclusions.

2 Methodology

With a small budget and a wide range of issues, the approach adopted for this scoping study consisted of documenting the local situation in ten case studies, and collecting readily available data on other countries, especially those which were indicative of good practice.

2.1 Literature review

Background information was gathered from a variety of sources identified by library and internet searches. The library search included TRACS (Transport and Road Abstracting and Cataloguing System), the English version of the Institute of Transport Research Development (IRTD) database that regularly receives material from the USA, Australia, Scandinavia, the Netherlands, Canada and other countries as well as TRL's own UK input. The database is updated daily and currently contains some 200,000 abstracts. PROJEX, which contains summaries of current and recently completed projects undertaken by government and private research establishments, industrial organisations, universities and consultants throughout the world, was also searched. TRL's press clippings of transport related articles from UK newspapers were also monitored for any insurance related news.

Much more information on individual insurance aspects for different countries was found using the internet. One of the key references, a Review of Personal Injury Compensation, undertaken for Ireland's Department of Trade and Industry was found via the internet as were the motor insurance websites from Botswana and Mauritius.

2.2 Case studies

Nine case studies were selected, including five from HICs selected on good practice considerations. Basic socio-economic details of the case studies are shown in Table 2.1. Published information was expected to be more readily available on the HICs and their case studies were produced from published references, e-mail correspondence and telephone interviews.

As requested by DFID, the LIC case studies were GRSP focus countries. It was considered that the LIC case studies would benefit from local assistance. Local counterparts received a small payment in return for documenting the local situation and how the insurance industry was currently contributing to road safety. A survey pro-forma (presented in App B) was sent to local counterparts to use as a guide in the data collection.

Table 2.1: Case study basic statistics (1999/2000)

	Pop '000s	GNI per capita [3]		Motor vehicles	Road deaths	Fatality Rate[1]	Fatality risk[2]
		US$	PPP				
Costa Rica	3,589	3,570	7,880	519,295	312	6.0	8.7
Ghana	18,785	400	1,850	300,000	1646	54.9	8.8
Karnataka (India)	52,730	440	2,230	1,305,443	693	5.3	1.3
South Africa	42,106	3,170	8,710	6214361	9,068	14.6	21.5
British Columbia (Can)	4,058	20,140	25,440	2,922,853	402	1.4	9.9
New Zealand	3,811	13,990	17,630	2,049,965	509	2.5	13.4
Sweden	8,857	26,750	22,150	4,235,400	570	1.3	6.4
UK	59,501	23,590	22,220	28,369,000	3,423	1.2	5.8
Victoria (Aus)	4,766	20,950	23,850	3,281,000	398	1.2	8.4

Sources: WB Atlas (2001), IRF World Statistics 2001, Statistics Canada, Department of Interior, Victoria government, Karnataka.com

1. Number of road deaths per 10,000 motor vehicles
2. Number of road deaths per 100,000 population.
3. GNI Gross National Income per Capita - Gross National Income divided by mid-year population. (US$) PPP parity purchasing price whereby prices are modified so that US$1 will buy an equivalent amount in all countries.

Whilst this was mainly a desk exercise, it was possible to visit the Directors of Ghana's National Insurance Commission (NIC) and the Ghanaian Insurance Association. Meetings were also arranged with the Association of British Insurers (ABI) and an insurance company in the UK.

2.3 Additional sources

Requests for information were also sent out to key insurance and road safety contacts in Europe and North America. Both the European Insurance Commission (CEA) and the European Transport Safety Council (ETSC) were contacted. The CEA is responsible for the European Insurance Directives (see Chapter 4 Compensation) while the ETSC had included a session on motor insurance in their June 2001 Best Practice Conference in Brussels. The European Federation of Road Traffic Victims (FEVR) was also informed of the research and requested to assist in documenting the victim's perspective in motor insurance compensation.

In the United States, the Insurance Institute of Highway Safety (IIHS) was visited at the start of the study. State Farm Insurance, the largest US motor insurer in the US was contacted as they are well known for their commitment to road safety. Schneider, the largest US trucking company, was also interviewed for information on their 'Empathetic Adjustment' programme which offers a refreshing contrast to the traditional adversarial approach to claim settlement.

The Research Centre for Automotive Repairs (RCAR), an international association of insurance sponsored repair centres, was also contacted for additional information on RCAR activities and the involvement of LICs.

The literature review and the contacts provided information on another ten countries and these examples have been included in this report. An insurance contact database was developed and currently contains over 70 references, identified over the course of this study. Many of these contacts are known to be able to offer valuable information on the subject of road safety and motor insurance but were not able to be consulted in this initial study.

2.3.1 Peer review group

This scoping study has benefited from the feedback provided by a peer review group, led by the GRSP Vice Chairman, and composed of aid officials and a director of a leading insurance sponsored research organisation.

3 Motor insurance coverage

In addition to presenting the current legal requirements, this chapter also covers the aspects of:

- Industry structure and market profitability
- Levels of compliance and penalties for non-compliance
- Premium pricing incentives to promote safer driving

3.1 Current requirements

Civil compensation for road traffic injuries has existed for several decades in most countries. Only a very few (Ethiopia, Eritrea, Armenia) are known not to require a minimum of third party injury insurance.

Compensation for third party injuries sustained in a road traffic collision is provided in all the case study countries, as well as first party injuries in Costa Rica, Victoria and New Zealand. Coverage for property damage caused to the other party's vehicle is found in most of the case studies (including Costa Rica) and can be purchased at an additional cost in Victoria and New Zealand.

Table 3.1 Motor insurance coverage

	Year Started	Current requirements	Industry structure	Compliance	
				Estimate	Fine (US$)
Costa Rica	1924	Personal injury & third party damage	State	84%	
Ghana	1958	Third party injury & damage	Mixed	70%	69
Karnataka (Ind)	1939	Third party injury & damage	Mixed	85-90%	10
South Africa	1942	Third party injury	State	100%	
BC (Canada)	1973	Third party injury & damage	State	98-99%	
New Zealand		Personal injury	State	90%	42 per day
Sweden	1929	Third party injury & damage	Private	99%	Up to 10% extra premium
UK	1939	Third party injury & damage	Private	90%	143-7143
Victoria (Aus)	1941	Personal injury	State		250

[1] Fine for lack of vehicle registration (which requires proof of insurance)

In most of the case studies, third party injury insurance is purchased on an annual basis through a commercial or state company. Exceptions include Victoria, South Africa and New Zealand. In Victoria, the insurance premium is collected in the mandatory licensing fee whereas in South Africa, the third party injury insurance is paid through a levy on fuel sold. In NZ, where personal injury insurance is provided by the state, both these sources are used with a NZ$79 surcharge on the annual vehicle license sales and a 2.3 cents per litre excise duty on petrol sales.

Five other southern African countries have followed South Africa's lead and have adopted the fuel levy based compensation system. It is also currently being considered in Mauritius, with one website stating that:

"*The model is conceptually brilliant. In fact it is impossible to conceive of a better system. More particularly however is the fact that it presents as the best form of government intervention. For countless road accident victims it is a catastrophic fact of life that their wrongdoers are unable to compensate them for being uninsured despite stern and threatening statements in government statutes. For drivers they are guaranteed full cover for minimum premium. For victims they are guaranteed recourse and full recovery from an identifiable defendant*" (Mauritius website, 2001).

3.2 Industry structure

Whereas private insurers are believed to be the main supplier of third party injury insurance in most countries, the state plays a leading role in the case studies selected, and as shown in Box 3.1, it is the sole provider in half of them.

Box 3.1 State motor insurance providers

Costa Rica:	National Insurance Institute (INS)
South Africa:	Road Accident Fund (RAF)
BC:	Insurance Corporation of BC (ICBC)
Victoria:	Transport Accident Commission (TAC)
NZ:	Accident Compensation Commission (ACC)

There has been a state monopoly on third party insurance in Costa Rica since 1924 while in South Africa, the state first became involved in 1965 as a reinsurer after several companies were liquidated. Even when third party injury insurance began being funded by a fuel levy, the private sector was still involved with several insurance companies acting as agents until 1997 when the state owned RAF took over. The private sector insurance market is still active in South Africa with approximately 28 private sector insurance companies offering property damage or comprehensive insurance. Private sector insurance companies offer comprehensive insurance in BC but ICBC dominates the market and is also responsible for driver and vehicle licensing.

India has only recently opened its insurance market to the private sector with two private insurance companies currently operating, in addition to the four public sector insurers. In Victoria, the government recently considered and rejected the idea of opening up the compulsory motor insurance market to private operators. The insurance industry argued that alternative systems had not been adequately considered and that a competitive model would offer cheaper premiums. NZ recently allowed private insurers to offer work-related accident insurance but this only lasted one year and was never extended to motor insurance.

Both Sweden and the UK rely on the private sector for motor insurance. Ghana has approximately 20 insurance companies operating but with the state insurance company accounting for at least half of the motor insurance market share.

3.2.1 Market profitability

The economic health of the motor insurance industry will affect both its attractiveness to investors and the likelihood of investment in road safety activities. Unfortunately, the motor insurance industry too often appears to be a loss making business in both HICs and LICs. In India, recent loss ratios (claim cost ratio to premium income) have been reported to be as high as 189 per cent.

In 1998, South Africa's RAF deficit was reported to be doubling every three to five years, with the premium paid at the time estimated to be only 40 per cent of that needed (Joffe, 1998). Botswana introduced a state-provided levy based system on very short notice in 1987, after the private sector insurance companies threatened to increase premiums by as much as 600 per cent (www.raf-mu.com). In Ghana, the fund for victims of uninsured/untraced vehicles has had to pay for the outstanding claims of the insurance companies which have gone bankrupt.

As a non-profit organisation, ICBC works on a break-even mandate. It suffered losses during the 1990s before it posted a profit in 1997 which it maintained in 1999 and 2000 (ICBC, 2001). UK insurers have recently reported paying out £1.19 for every £1 received in premiums. Even after investment income was considered, £1.09 was still being paid out per £1 in claim compensation (Which?, Sept. 2001).

3.3 Motor insurance compliance

3.3.1 Levels of compliance

Many countries, especially LICs, have problems with motor insurance compliance, although as seen in Table 3.2, it has been possible for several HICs to achieve good results.

Table 3. 2: Motor insurance compliance

Country	Uninsured drivers (%)
Denmark	Rare
Austria	Very low
Germany	0.2
Finland	0.5
Belgium	1.2
Sweden	1.2
Portugal	1.3
France	2
Luxembourg	2
Britain	5
Greece	10

Source: Direct Line, 2001

While Costa Rica and India were both reported (by local counterparts) to have only 20 per cent non-compliance, in many other LICs, this is closer to the share of motor vehicles which are insured. Earlier World Bank project reports included insurance coverage estimates of Peru (22%), Pakistan (10-20%), Zambia (15%) and in Vietnam, one quarter of motorcycles and half of are four wheel motor vehicles were estimated to be insured (Eijbergen 2001, Aeron-Thomas 1999, Ross Silcock 2000). In many countries, the owners of older commercial vehicles can have problems obtaining insurance. In France, if a motor vehicle owner has difficulty finding an insurer, the Central Rating Office will require a company to insure it.

3.3.2 Encouraging compliance

As with vehicle inspection, many countries use a windscreen decal to show insurance coverage. This measure has been popular in Europe for several years and has recently been implemented in Ghana. The UK rejected the windscreen decal approach because it was considered too easy to replicate false decals. Instead, the insurance industry collaborated and funded the establishment of a Motor Insurance Database where insurance details are centralised and access allowed by police, insurers, etc.

With one agency, i.e. ICBC, responsible for licensing as well as mandatory insurance in British Columbia, insurance compliance can be checked any time a license is issued (Driving licenses are renewed every five years). British Columbia is believed to be the only jurisdiction which has these two responsibilities under one agency.

The enforcement of insurance coverage is rarely a priority of traffic police. In Karnataka, the police announce motor insurance checks in advance. Driving while uninsured in Ghana can result (in theory) in one-year imprisonment or a one year driving disqualification. These penalties are not believed to be implemented and the number of motorists fined for driving while uninsured was not available from the Traffic Police.

As in Ghana, driving in the UK while uninsured can incur more than just the fines, e.g. between 6-8 penalty points on a driving license. However a survey of the UK Magistrates courts found two third of the fines for uninsured driving were for £200 or less (Police Review, 25 September 1998). The UK government has recently suggested that community sentences and permanent or temporary vehicle forfeiture be extended for driving while uninsured (Home Office et al, 2000). A survey funded by the insurer Direct Line found

- 44% drivers want more roadside checks to trap insurance cheats
- 30% drivers say that the fines for uninsured drivers are too low
- 28% favour imprisonment for persistent offenders (Williams, 28 Feb 2002)

Sweden does not fine drivers for use of a motor vehicle but adds a surcharge of up to 10 per cent to the next policy which must be purchased from the state.

It should be noted that motor insurance compliance does not necessarily mean that third party compensation is being obtained. This is likely to be a problem in many LICs, especially among the

poor who will be unlikely to know their legal compensation rights or have access to legal assistance (See Chapter 4).

Box 3.2: Southern Africa Good Practice

Five southern African countries (South Africa, Botswana, Swaziland, Namibia, and Lesotho) currently collect third party bodily injury motor insurance through the fuel levy, which virtually eliminates the possibility of driving without insurance.

3.4 Pricing incentives for safe driving

3.4.1 Premium basis

In most countries, the government determines, after consulting with the insurance industry, on the cost of motor insurance premiums. In many LICs, the third party premium charges are influenced by transport fleet operators. The lowest third party premium for a private car was reported to be approximately £16 while in India, it was about £10 for a motor vehicle with greater than 1500cc (£7 for less than 1500 cc). Such low premiums obviously affect not only the potential compensation amounts available but also on the sensitivity of the premium to any pricing incentives. Adjusting insurance premiums to reflect perceived risk is the traditional, if not necessarily effective, road safety intervention adopted by insurers (See Table 3.3).

Table 3.3: Factors influencing third party insurance premiums

	Responsible authority	Tariff basis driver/vehicle	Driving experience	Drink driving conviction	Speeding conviction	No claim discount
Costa Rica	State	Vehicle	No	No	no	10% -1 yr
Ghana	State	Vehicle	No	No	No	
Karnataka, India	State	Both	Yes	No	No	15-65%
South Africa	State	(Distance)	No	No	no	No
BC, Canada	State	Vehicle	No	No	No	10- 45%
New Zealand	State	Vehicle	No	No	No	No
Sweden	Private	Both	Yes	Yes	Yes	Yes
UK	Private	Both	Yes	Yes	Yes	10- 65%
Victoria,Australia	State	Vehicle	No	No	No	No

It is standard practice to base the insurance premium on the vehicle type, and many countries also consider geographical location. Both Sweden and the UK allow premiums to be set by the insurers and many factors can influence the price. UK insurers offer premium reductions on the basis of age, sex, additional driver training, and just recently, an insurer is offering to charge on the basis of mileage with a black box fitted to the vehicle.

Sweden was the only case study identified which gives a discount to teetotaller drivers. Other countries use penalties to discourage drink driving. In the UK, drivers convicted of a drink driving conviction will experience difficulty in finding an insurer and their premiums will double in price. The impact of a drink driving conviction will also affect the insurance premium for several years.

3.4.2 Bonus malus system

The 'bonus malus' system refers to the use of premium discounts for claim-free driving and surcharges for crash involvement. No-claims discounts (NCD) are still popular in the UK, British Columbia and Sweden, with discounts up to 75 per cent available in the UK. However, NCDs are easier to justify as a marketing tool rather than as an effective safety intervention. The effectiveness of NCDs has been doubted, if not rejected, for many years (OECD, 1990). Even in countries where NCDs are popular, such as the UK, the ABI acknowledges NCDs are not thought to be effective in reducing collisions. NCDs are believed by many to encourage non-reporting of claims, especially minor claims, rather than safer driving.

As discussed in the following chapter, there are also penalties on claim compensation if policy holders are found to have contributed to the crash (or casualty severity), or if they have breached their policy conditions.

3.5 Summary

- Compensation for third party injuries sustained in road traffic collisions is required in almost all countries, and several also cover first party injuries. The state was found to be the main provider of third party insurance in the majority of the case studies, including half where it was the sole provider. The state also plays the main role in setting the basic premiums for third party insurance in many countries.

- Motor insurance was reported to be a loss making business in several of the case studies, including the private sector system in the UK. In South Africa, where the premium is collected through the fuel levy, the RAF reported a deficit which was rapidly increasing. Compulsory motor insurance premiums in both Ghana and India were reported to be very low.

- The case studies reported relatively high rates of insurance compliance, while other countries are known to suffer from lack of insurance enforcement. Several Southern African countries have followed South Africa's lead and introduced a system whereby third party injury insurance is collected through a fuel levy and non-compliance is virtually impossible.

- Motor insurers are commonly believed to be able to encourage safer driving habits by offering rewards and financial incentives for additional training and for not being involved, or at least not reporting any claim. The most common variable in third party insurance premiums appears to be a no claims discount. However, this is not believed by the insurance industry to lead to safer driving or fewer collisions but at best, reduced reporting of claims. No claims discounts remain popular but they should be viewed more as a marketing tool than as an effective road safety intervention.

4 Compensation and rehabilitation

This chapter looks at how the insurance industry provides compensation and it examines:

- Who qualifies for compensation (4.1 Liability)
- What benefits are available (4.2 Compensation)
- How many victims are claiming (4.3 Weaknesses)
- What are the weaknesses in service delivery (4.3 Weaknesses)
- What improvements are being made (4.4 Recent Reforms)

4.1 Liability

While insurance systems may share the same basic objective of compensating road traffic casualties for their losses, their delivery systems vary widely. Table 4.1 presents an overview of basic compensation systems in the case studies.

Table 4.1 Case Study Compensation Indicators

	Compensation (US$)		Fault/ No fault	Contributory Negligence
	death	injury		
Costa Rica	2,300	2,300	Fault	Yes
Ghana	unlimited	Unlimited	Fault	Yes
Karnataka (India)	514	514	Fault	Yes
South Africa	Unlimited	unlimited	Fault	Yes
British Columbia (Canada)	12,813	93,750[1]	No fault	Yes
New Zealand	Unlimited	unlimited	No fault	No
Sweden	28,846,153[2]		No fault	Yes
United Kingdom	Unlimited	unlimited	Fault	Yes
Victoria (Australia)	unlimited	unlimited	No fault	No

[1]medical and rehabilitation expenses per injury (does not include wage loss or pain and suffering)
[2]limit is for casualty and property damage liability

The majority of the case studies, and countries in general, function under a fault-based system which allows claimants the right to sue for compensation. Three of the case studies (British Columbia and New Zealand, and Victoria, Australia) operate under a 'tort add-on' system, where victims are guaranteed compensation but are not allowed to sue for additional sums, except for common law damages when a driver found to be negligent can be sued. Table 4.2 summarises the perceived disadvantages and advantages of the no-fault system.

Table 4.2 No fault liability system

	Advantages	Disadvantages
No fault system	Quicker payment of claims No splitting of fees with lawyers Reduction in number of lawsuits No subsidising uninsured motorists	No compensation for pain & suffering No incentive to be good driver Higher premium rates (25% more) Economic damage compensation limited

Source: Fidelity investments (insurance.com, 2002)

While no-fault systems are usually perceived to be less costly, a comparison of US States with two-tier no fault systems found them to be on more expensive than fault based states. However, it should be noted that the 13 no fault States use a modified system which allows claimants to sue for damages beyond the agreed limit and which is expected to add to the cost.

4.1.1 Burden of proof

While criminal charges help clarify negligence and thus culpability, in many countries civil claims can still be awarded when no charge has been laid, as seen by examples from India and the UK (See Box 4.1). The Indian Supreme Court has recently ruled that proof of rash and negligent driving is not necessary to claim damages in road crashes. It distinguished between "no fault liability" and "strict liability" and stated compensation can be claimed under common law. A Justice Division bench was also reported to have ruled that motor vehicle owners must pay compensation to victims (and their families) on the basis that the crash occurred while the vehicle was in use (WHO-SEARO, 2001). India operates a two tier system with a fast track approach for minimum fixed amounts and slow track for full claims, but both must go to court.

Box 4.1 Casualty severity vs crash causation

In a recent landmark case in the UK, an insurance company accepted liability for a child who was seriously brain injured in a car collision. While the child had caused the collision, it was the vehicle speed that was held responsible for the injury severity. Although the driver had not exceeded the speed limit, he had been warned about children playing in the area and previous collisions in the same area had only resulted in minor injuries due to reduced vehicle speeds (John, 2000).

Badinter law (France and Netherlands)

In 1985, France reformed its system of civil responsibility and made drivers liable for non-driver injuries. Known as the Badinter law (after the Minister of Justice), pedestrian victims were assumed to have the right to compensation, save for where they have committed an "unforgivable fault which is the exclusive cause of the accident (UFECA)". No such restriction applies to victims aged under 14 or over 70, as the drivers will always be held responsible except where suicide can be proved. These victims are described as being "super protected".

A similar policy exists in the Netherlands where drivers are held fully liable with vulnerable road user victims (pedestrians and cyclists) under aged 14 or older than 70 years. For all other vulnerable road user victims, the driver is assumed to be 50 per cent liable with the other 50 per cent dependent upon the guilt of the driver and the victim.

With the high percentage of vulnerable road user involvement in LIC collisions, driver liability with cyclists and pedestrians is an important consideration. In COMESA's (Common Market for Eastern and Southern Africa) Yellow Card Compendium, nine of the eleven countries reported that fault had to be proven. Only Eritrea and Ethiopia (where motor vehicle insurance is not compulsory) allowed the victim to claim compensation without proving the motorist was at fault (COMESA, 1998). Since then, the region of Addis Ababa, where the largest number of injury collisions occur, has updated its traffic legislation and now requires fault to be shown.

Contributory negligence

In most countries, a victim's claim can be reduced if they are found to have contributed to the collision (or the casualty severity). New Zealand and Victoria are exceptions and do not reduce a claim award even if the claimant is found to have contributed to the collision. ICBC forewarn their clients that settlements can be reduced if

- Claimant was not wearing a seat belt
- Head restraint not properly adjusted
- Two wheeled rider/occupant not wearing a safety helmet (both motorcyclists and cyclists)

In South Africa, the victim's claim can be reduced by the extent to which they were held responsible for the crash and Botswana's Road Accident Fund specifically states that a claim will

be reduced 25 per cent if the claimant was not wearing a seat belt at the time of the collision. In Russia, damages can be reduced, and even denied, depending on the extent of contributory negligence by the victim. The court can also, however, consider the financial status of the defendant, and the need for financial assistance for the recovery (All-Russian Insurance Association, 2001).

Coverage restrictions, including cancellations, are used with comprehensive policies in many countries. In New Zealand, private insurance companies will decline a comprehensive policy claim if the driver is over the legal alcohol limit and the alcohol has contributed to the crash. Other factors that can be expected to lead to a cancellation of coverage if they contribute to a crash include faulty steering, poor headlights, bald tyres and worn brakes (Insurance Commission of New Zealand, 2001).

ICBC also reserves the right, as do most companies, to 'breach' a policy if a client violated the terms of conditions of the insurance policy, the most common example is driving while impaired. All victims will be compensated, but ICBC could sue the guilty driver for the costs. With claims involving a drink driving or a speeding conviction in Sweden, Folksam compensates all damage costs of the third party and all injury costs, but not first party damage costs.

4.1.2 Hit and run victims

All the case studies included coverage for victims of hit and run / uninsured vehicles. In 1999 Ghana's National Insurance Commission introduced a premium surcharge of cedis 10,000 ($1.4). Approximately 30 per cent was for victims of hit and run collisions and 70 per cent for the windscreen sticker program. Zimbabwe compensates victims of hit and run collisions from a fund financed by a levy on insurers.. There are countries in Africa, including Sierra Leone, which do not yet have a fund for hit and run victims.

As in Zimbabwe, all insurance companies in Karnataka are required to contribute to the Salesian Fund which compensates hit and run victims. In Delhi, one third of the fatal road crashes in 2000 were hit and run incidents. Under the current Indian system, bereaved families must wait up to three months for police to close the case as 'unsolved' before compensation is paid (WHO, 2001).

The more common problem is that hit and run victims often receive less than that received by other injured motorists. In Swaziland, the compensation limit is actually lower for hit and run victims. In BC, residents are covered up to a maximum of $200,000 for injury or property damage caused by a hit and run drivers, a lower limit than if they were hit by an insured driver.

The UK Motor Insurance Board (MIB) compensates for injury damages in a hit and run collision but if the vehicle involved is identified but lacks insurance, then the MIB will compensate for both injury and property damage. Italy operates a similar system.

4.2 Compensation benefits

As shown in Table 4.1, compensation limits were defined in some countries but this varied for death and injury cases. In South Africa, there is unlimited liability, except for certain categories of passengers which are limited to claiming up to (R25,000) against their own driver. In Ghana, doctors report relying on outdated workman's compensation guidelines for their disability assessments. This is believed to be a problem in many LICs including Bangladesh, where compensation limits have not been updated since 1983. In HICs, the benefits are usually updated annually according to an index, such as the Consumer Price Index.

Some countries have compensation limits per collision. This is the case in Italy where the minimum cover for third party insurance for private cars is LIT 1.5 billion per collision, regardless of the number of victims or the collision severity. Sweden also operates under this system.

4.2.1 Pain and Suffering

Pain and suffering is not compensated for in some countries, while in others it is limited or only accessible through the court system. The Supreme Court of Canada has set a limit on pain and suffering payments (US$163,000) while Sweden offers compensation payments for non-economic loss, ie. pain and suffering, only during the period of acute illness.

The LIC case studies included damages for pain and suffering. The RAF has listed the drain on its resources from human costs as one of the current key weaknesses of the system (RAF, 2001).

In Germany, where the owner is assumed responsible for damages caused by their vehicle (unless they can prove otherwise), damages are limited and do not include pain and suffering. In the Netherlands, motor insurance legislation does not include damages for pain and suffering but these can be claimed under the civil code (DETE, 1999).

A recent Canadian study found positive impacts from the removal of pain and suffering awards. Researchers from the University of Alberta studied 7,500 whiplash claims before and after Saskatchewan dropped its pain and suffering awards and replaced them with increased money for medical costs and lost work. Reported in The New England Journal of Medicine, the study concluded the no-fault system removed the financial incentive for recovery, reporting that 'When benefits are tied to the amount of pain you have, then you tend to focus more on your pain—and you feel more pain' (The Associated Press, 2000).

4.2.2 Claim procedures

Most countries offer incentives to settle claims outside of the court system. India was an exception with all its bereaved and serious injury claims officially required to be heard in court. In practice, many drivers/owners, including in India, settle privately, out of court. Although a key objective of no-fault schemes was to be the avoidance of the cost and complication of court hearings, many countries with a no-fault system do allow claimants to appeal in the courts. NZ has a four-step review process with appeals heard in the courts at the last two stages. In Victoria, courts are only involved in common law damages cases where a driver has been found guilty of wrongdoing. Quebec allows property damage claims to be heard in court.

In Sweden, claims are settled on a first party basis, i.e. the driver's insurance company is responsible for compensating any injuries incurred by the driver of passengers in the car. If the other driver is found to be responsible, then the first insurance company is eligible for reimbursement from the negligent driver's insurance company. Very few road injury claim cases are believed to be heard in court (See Box 4.2).

In India, settlement guidelines are published but as in Sweden, they are not mandatory. While all the HIC case studies provide information on claim procedures, Costa Rica was the only LIC case study which reported distributing information booklets on how to report a claim. Lack of awareness of rights was cited as a serious problem in Karnataka.

Box 4.2 Sweden's Road Traffic Injuries Commission

As far back as 1936, Sweden appreciated the need for independent advice and established the Road Traffic Injuries Commission (RTIC). Insurers are required to consult the RTIC in cases of death or disability, although its decision is only advisory and claimants are allowed to pursue their case through court.

The RTIC monitors all court decisions and circulates guidelines to insurance companies, solicitors and judges. While the RTIC Chair is appointed by the government, there are three types of members: lawyers with judge experience, insurance officials and lay people. It usually meets with only six members, but minor cases can be heard by the RTIC Chair alone.

In addition to changing the presumption of liability in France, the Badminter law also streamlined the compensation process. Claim offers have to be made within 8 months (the previous settlement average had been 21 months with some cases taking 60 months). Insurance companies are discouraged against making low offers as they will be required to pay up to 15 per cent more as a penalty, with the fine going to the Motor Insurers Bureau. Late compensation offers are also discouraged with insurers having to pay double the legal interest to the victim (spps website).

4.3 Weaknesses

HIC and LIC case studies shared several of the same concerns, i.e. damage awards, settlement delays, excessive legal costs, etc. It should be stressed that the weaknesses identified have been based largely on the service provider's information. While victim rights groups have begun to function in some LICs, there were no such organisations operating in the LIC case study areas.

The European Federation of Road Traffic Victims (FEVR) is an association of road victim support and advocacy groups from 11 countries, with associate members from low income countries including Argentina, etc. In 1997, FEVR produced *Impact of Road Death and Injury*, a report which included surveys from over 1300 victims, collected by sixteen organisations in nine European countries. Bereaved families and the injured were asked about their level of satisfaction with the various authorities, including coroners, police, and insurers.

In general, respondents were unsatisfied with the damages offered, the medical examination process, lack of financial justice and the time involved in the civil proceedings. Road traffic victims in Switzerland reported the highest rate of satisfaction with insurance companies, but even there 60 per cent were dissatisfied. UK victims reported considerable dissatisfaction with insurance companies. Overall, 86 per cent of bereaved families and 90 percent of families with a member disabled from a crash expressed dissatisfaction with the UK insurance companies. The reasons such as delays and inadequate amounts are discussed in 4.3.3 below and the study's recommendations for civil compensation are summarised in Box 4.3.

Several countries have already begun implementing the recommendations with the last one adopted in Switzerland, France and Germany as well as by the Council of European Ministers (FEVR, 1997).

Box 4.3 FEVR Impact of Road Death and Injury (1997) Civil Compensation Recommendations

The study's legislative proposals for compensation included:

1. Improve and regularly review the level of compensation to ensure realistic damages.
2. Ensure realistic compensation for all victims by, for instance, ensuring efficient operation of a guaranteed fund.
3. Require insurance companies to provide immediate advance payments (interim) to victims and/or to their families, to cover expenses such as funeral costs, loss of earnings or medical treatments
4. Give consideration to having part of the compensation paid by the defendant. Thus a judge should be able to confiscate a part of the property or income of the guilty in order to give direct help to the victim. Furthermore, the guilty could be charged for the legal and medical expenses of their victims.

In an effort to highlight the key weaknesses, the problem areas summarised here have been limited to the:

- number of claimants,
- damage awards,
- settlement delays and costs,
- case management, and
- lack of funding

Effort has been made to consider both the perspective of the claimants and that of the insurers.

4.3.1 Number of Claimants

Apart from the state insurance providers, few countries are believed to monitor the number of victims receiving compensation from road collisions. Basic reporting requirements typically include the total amount of premium collected and claim expenditure, but not the number of vehicles insured or casualties compensated.

There is concern that the number of LIC victims being compensated is very few, even when motor insurance non-compliance is considered. A recent survey of 84,000 households in Bangladesh found only one per cent of bereaved families and those seriously injured had received any compensation from insurance. When the same study queried vehicle damage costs from transport operators, they were informed of the difficulties in getting insurance companies to accept a claim.

The Karnataka case study highlighted the problem of lack of awareness of victims' rights and responsibilities. When Botswana's Road Accident Fund began publicising the compensation rights of those killed and injured on the road, within one year, it had doubled the number of claims received (Botswana Road Accident Fund, 2001).

Even with a relatively small number of claimants, the potential size of the demand is large. For example, South Africa's annual reported casualty toll includes 10,000 fatalities and 60,000 injuries. Botswana has also noted the problem with collision compensation being managed by a different ministry than that responsible for improving road safety and reducing the number of casualties.

4.3.2 Damage awards

Compensation amounts vary widely but are often very low in LICs, as seen by Costa Rica in Table 4.1. In Bangladesh, compensation for a death was set almost 20 years ago and is currently the equivalent of less than $400 (Taka 20,000). In Russia, while monitoring of awards is poor (even within individual courts), there was widespread belief that awards were very low, with the

average compensation for death being the equivalent of US $2000. The largest claims to motor insurance were from damage to cars (All-Russian Insurance Association, 2001).

In many countries, lawyers and their assistants (ambulance chasers) deliberately contact victims or their relatives and offer to pursue claims on their behalf for a percentage of the outcome.

> Box 4.3 Ghana Insurance disability assessment example
> An insurance company called a doctor after receiving a medical assessment, which indicated the client was a 'walking corpse'. The doctor apologised as he had thought the assessment was needed for a motor claim, rather than a life insurance policy.

Lack of trust in the compensation process will encourage abuse of the system. The insurance companies in Ghana have complained of inflated disability claims reported by doctors (See Box 4.3). From the insurer's side, both Ghana and South Africa insurers have expressed concern over the liability of having unlimited benefits for road casualties. In South Africa, bereaved children are still entitled to full compensation even if the other driver contributed minimally to the crash. There is also a problem with lump sum payments as these are often spent within several years and the victim returns to the state for benefits.

4.3.3 Settlement delays and costs

All five HIC case studies reported problems with settlement delays. Similarly in South Africa, claim settlement is reported to take between 2.8 to 3.8 years after the crash, with claims being submitted on average 18 months after the collision. The Swedish Insurance Commission reported medical assessments to be a common cause of delay. New Zealand also expressed concern about the time lag for initial compensation payments and Victoria's recent performance targets had included reducing the time required for settlements and payments. The FEVR study estimated the average time taken to settle the claim of a road fatality at 2.6 years and even longer for claims involving the disabled (3.4).

South Africa's RAF has reportedly been spending more on settlement costs than on claims for medical expenses, loss of earnings and loss of support. 'Champerty' exists in South Africa whereby solicitors charge the claimants a percentage of the amount recovered, and thus have a vested interest in an inflated claim. Settlements were being paid to the lawyers who first deducted their legal costs and charges before passing the remainder on to the victim. In 1999, the Law Society was reported to have decided to tackle the problem of excessive legal fees. This move was welcomed by the then Transport Minister Mac Maharaj (Motor News, Feb 22, 1999). While the RAF has blamed 'ambulance chasers', the RAF itself has been accused of internal inefficiency and corruption.

> Box 4.4. Woolf Reforms for Civil Compensation in the UK
>
> In 1996, the Lord Chief Justice Woolf criticised the UK civil compensation system for being:
> - too expensive in that the costs often exceed the value of the claim
> - too slow in bringing cases to a conclusion and too unequal
> - lack of equality between the powerful, wealthy litigant and the under resourced litigant
> - too uncertain; the difficulty of forecasting what litigation will cost and how long it will last induces the fear of the unknown
> - incomprehensible to many litigants (Warwick University law website "What is the Woolf Report?", 2002)

Having cited the problems with the UK system, a recent review of personal injury compensation systems by Ireland's Department of Enterprise Trade and Employment (DETE) found an even worse situation there. Compared to the UK, claims in Ireland took

- 3.6 times longer to settle,

- involved barristers in almost half of all cases (only 3 per cent in the UK),
- ended with 60% being settled in court (compared to 60% being settled in the UK over the phone or through correspondence),
- averaged four times the UK claim cost.

Such a litigious system would be costly and the Irish were found to pay a higher percentage of their earnings on motor insurance than any other country. Novice drivers were heavily penalised and paid 4.8 times the average insurance premium (DETE, 1999).

4.3.4 Case management and rehabilitation

The FEVR report highlighted the dissatisfaction with the victims of the claims settlement process as well as with the claim amounts agreed. In the Spring 1997 issue of ICBC' Recovery magazine, a private insurance adjuster argued that the lack of trust in the claim settlement process had led to "lengthy legal battles, clogging the court system and burdening both sides with excessive legal fees" (Vernon, 1997).

While insurers in many HICs have been addressing rehabilitation needs for several years, this problem has yet to be tackled in the LIC case studies and has only recently been considered in the UK. A seriously injured UK victim is estimated to only have a 14 per cent chance of returning to work, compared to 32 per cent in the US and 50 per cent in Sweden (Byrnes, 2001).

4.3.5 Lack of funding

In South Africa, the RAF deficit was reported to be doubling every three to five years and the 1998 White Paper estimated the premium being paid at the time was only 40% of what was actually required (Joffe, 1998). In Botswana, financial problems were identified within the first five years of the introduction of a Road Accident Fund. Botswana's Fund had been transferred from South Africa and imposed within a short period of time. The Fund requested the Government replace the Advisory Committee with a Board. The fuel levy was also requested to be paid directly to the Fund instead of Customs & Excise, which had often led to long delays and lost interest. In 1993, the Fund also recommended an immediate increase in the fuel levy but this was only obtained in 1996.

4.4 Recent reforms

4.4.1 Damages

LIC case studies

The Ghana NIC has introduced changes in recent years which have helped claimants. Since 1999, it has been compensating victims of hit and run collisions and it has also introduced a complaints system and currently hears complaints from claimants twice a month. The largest insurance company in Ghana, the State Insurance Company, is attempting to reduce inflated claims by employing a leading hospital in Ghana to manage the medical assessments required for SIC claims. The hospital surgeons will do the assessments themselves or vet other doctors for this service.

In May 1999, President Mandela (who had himself lost a son in a road collision) appointed Judge Kathleen Satchwell to chair South Africa's RAF Commission. One of her first tasks was to conduct an international review of compensation systems. After completing this task, Commissioner Satchwell has met with the Insurance Association the options being proposed (See Table 4.3).

Table 4.3 Possible RAF revisions

	Current	Possible
funding	Fuel levy	Fuel levy plus compulsory premiums for passenger carriers
liability	Fault	No fault
quantum	Unlimited, no caps, no thresholds	Thresholds (days off work, disability assessments), caps (time periods, review of disability), benefit schedules (% earnings with caps, flat rates for funerals and children)
payment system	Lump sum	Lump sums (funerals and permanent impairment benefits) renewable monthly pension type payments for balance

The main change being proposed is the move towards a no fault system with the capped benefits and thresholds. Under the new system, smaller claims would be excluded in order to ensure compensation funding for those more seriously injured. It will also cap the benefits, if for example a person will not be able to claim compensation for loss of earnings higher than for e.g. R4500 per month. This will allow more money for a wider spread of people in greater need. At the moment lump sum benefits are the only form of payment and do not take into consideration early death or even recovery. Pensionised payments would reduce the initial outflow but would have to be properly monitored and reserved.

4.4.2 Settlement delays and costs

LIC case studies

Concerned over the vulnerability of claimants to their solicitors, Ghana State Insurance Corporation (SIC) has introduced the policy of informing claimants, when they pick up their damage award, that their solicitors have been paid separately by SIC. In India, the claim settlement procedures were recently revised and streamlined. Previously, settling claims were reported to be a 'nightmare process' and car dealers and garages have begun offering the service of claims management.

HIC case studies

In 1997, the TAC (Victoria) stopped contracting out their legal services and established their own law firm. (TACs' annual legal bills had been US$6 million) The TAC decided there was a need for earlier involvement of lawyers who had traditionally became involved 3-5 years after the crash and too late for timely investigation of the circumstances. The TAC has revolutionised its approach to case/litigation management. All staff members involved in management of the claim must now be located on the same floor and next to each other. The new system appears to be successful with the following service delivery improvements announced in the TAC Annual Report 2001:

- 50% reduction in time taken to make first loss of earnings payment
- 35% reduction in decision process time on a serious injury application
- 50% reduction in time to settle a common law claim.
- 82% claims received by the TAC were accepted in one day.
- 80% appeals resolved within 13 months (TAC, 2002).

The Swedish Insurance Commission has recommended that cooperation should be improved between insurance companies, lawyers, medical care, and medical insurance payments. Insurance companies are reported to have taken steps to improve their cooperation. At present, there are no penalties for late or low settlement offers. IACC is also working to reduce the time lag between claim settlement and initial payment in NZ.

In Italy, the association of consumers has reached an important private agreement with the Association of insurance companies. The insurance companies have agreed to start presenting reimbursement proposals for road collisions within 30 days and to allow a further 30 other days

for possible negotiations, in order to avoid court settlements. Substantial saving are expected as the costs of the Court and those of the solicitors of both sides often represent up to 50 per cent of the reimbursements by the insurance companies (FEVR 16, 2001).

4.4.3 Case management and rehabilitation

HIC case studies

ICBC was the first motor insurance company in North America with a dedicated rehabilitation department. Rehabilitation co-ordinators are located in main BC communities to help the injured to achieve the highest reasonable level of self sufficiency. ACC has also begun targeting the long term injured and is monitoring the number of casualties still receiving benefits after 12 months as part of its performance agreement with the NZ government.

In Victoria, the TAC recently produced an information booklet *An Introduction to the TAC,* which explains the benefits injured people could receive and how the TAC operates. It also gave advice on what clients needed to do to manage their own recovery and rehabilitation. Improvements in the rehabilitation service for those requiring long term assistance included:

- Single contact person at the TAC
- Improving service delivery with increased home visits
- Introducing Care Online
- Establishing a Community Care and Support Panel for attendant care providers

A key focus was on clients with vocational needs. The TAC has identified that one third of claimants were employed at the time of the collision and that resuming employment helps both the client and the wider community, including the employer. The TAC is now dedicated to helping the injured return to work as quickly as possible, and specialist teams have been established to address vocational needs. In 2001, the TAC assisted almost 1200 people return to work, an increase of 45 per cent over the previous year.

The TAC has also invested in the Victorian Trauma Foundation in an effort to reduce death and permanent disability through improving the state's trauma system. Two projects approved by the Foundation include a series of trauma nursing workshops at the Royal Melbourne Hospital to enhance the practical skills of nurses in managing trauma patients; and a longitudinal prospective study of psychological, occupational and quality of life outcomes following major trauma (TAC, 2001).

In the UK, Lord Woolf's review of the civil compensation system led to the adoption of the Civil Procedure Rules (CPR) in 1998. The CPR objective was to improve access to justice by reducing the cost of litigation and the complexity of the proceedings. A basic CPR aim was to reduce the number of cases being decided in court with early cost-effective resolution of claims by the use of

- pre-action protocol
- case management
- experts meetings
- settlement offers

Before a case can be taken to court, the claimant's solicitor must give the defendants the opportunity to settle the claim first. Time limits have been set, both sides can make an offer (unlike previous situation) and there are financial penalties for not accepting an offer which is confirmed in court.

Reform has also begun on the rehabilitation side in the UK where the ABI and the Insurance Underwriters Association have formed a Rehabilitation Working Party which has produced a Code of Best Practice on Rehabilitation (See Box 4.5.). The code is still under discussion but it has received support from several of the major insurers.

Box 4.5. UK Code of Best Practice on Rehabilitation
"The main point of the code is to emphasise the importance of early intervention on treatment and rehabilitation in personal injury cases. In intervening early, the chance of the claimant returning to employment are dramatically increased. This prevents the claimant from becoming too disenfranchised with the illness as well as with the rest of society. It shifts the focus from blame to possibilities which are very important in encouraging the claimant to start on the way to getting a better life. Ultimately most people do feel more of a sense of worth if they are active in employment and able to actively partake in society. This is one important objective with the code as it reduces the social costs to society as well as the actual costs of care and medical treatment. The downside of not having any rehabilitation included the increased costs to the economy as well as the strain on the National Health Services once the lump sum payments becomes depleted. Despite the increasingly large lump sum awards being given in cases of personal injury research shows that most claimants have spent their entire award within eight years. This means that additional unanticipated costs fall on both the NHS (National Health Service) and the DSS (Department of Social Security)" (Byrnes, 2001)

An example of good practice from a LIC case study is the Comprehensive Trauma Consortium (CTC) programme which aims to improve trauma care in Bangalore city . It includes an accident insurance scheme (Suraksha), with fees as low as 140 rupees for Rupee 25,000 coverage for medical costs (up to R 210 for 100,000 per annum).

CIC intends to provide the following:

- Advanced training programme for doctors/nurses/emergency team
- To conduct periodic seminars to promote all aspects of trauma care
- Upgrading of medical facilities
- Periodic paramedic training to provide on the spot care and assisted transportation
- Satellite hospitals will provide trauma care on the highways, the first aid rescue cabins will act as pick-up points, CTC has links with Rotary, IOC, Suman Motels & Deccan Aviation to establish trauma care.
- Establishment of first aid facility at every petrol bunk on the highway
- With Rotary's help, all the existing highway hospitals will be equipped with first aid kid, spinal board and other emergency life saving drugs.
- Ambulances will be placed at Strategic location to provide the transportation service
- Through the wireless repeaters we are extending dedicated communications on to the highways
- With the help of Deccan aviation, air ambulances have been introduced and rapid medical evacuation in Bangalore city for the first time (www.roadaccidents.com).

Further good practice can be seen in Box 4.6 which highlights the innovative approach towards claim settlement of the largest trucking firm in the US.

Box 4.6 Good Practice: Schneider National's Empathetic Approach

Schneider National, the largest US trucking firm, practices what it has developed and calls the Empathetic Approach to claim settlement. With their trucks involved in a fatal crash on average once a week, Schneider's insurance company INS (Schneider owned) contacts the bereaved family as soon as possible to offer assistance and sympathy. Schneider National's Claims Management Director says 'People are genuinely suffering. You have to do more than wait for them to get an attorney. You have to go out and say you're sorry. Someone died. Why not say you're sorry…We're not admitting fault. Sometimes lawyers are too hardened by all of the cases they work on' (Dougherty, Spring 1995).

While most of the INS claims are settled in the traditional adversarial manner, 20 per cent of their death cases have been solved by an empathetic approach. Key actions include:
Immediately visit survivors at the hospital or funeral home
Apologise for the collision
Promise to help the family in every reasonable way.
After establishing contact, call the family every day and pay for the funeral.
Schneider will also research similar claims and present the findings to the victim's family for reference purposes, with the advice that a lawyer should be hired at an hourly rate to review the lawsuit settlement offer.

The empathetic program is reported to have saved the company millions of dollars but victims, at least some, appear to have also benefited. The article included one victim's perspective who valued the empathy more than a higher compensation settlement as it avoided prolonging the rage and mourning period. INS promotes the empathetic approach to other insurance companies (Davidson, August 2001).

4.4.4 Funding

As noted in Chapter 3, motor insurance premiums are often set by the government, with the industry required to document and argue the need for increase in premiums. The Insurers Association is currently negotiating a motor insurance premium increase with the NIC in Ghana.

In several of the HIC case studies, the public sector was allowed to claim from the insurers or the claimants (in case of rewards) for services rendered. UK hospitals have been allowed to recover treatment costs for road casualties since 1931, but the amount allowed was very low and not thought to be worth the administrative work involved. A 1997 national survey concluded that only £10 million, out of a predicted £100 million, was actually being recovered by the hospitals. Ambulance and hospital costs had previously been identified as accounting for half of all public sector spending in road safety (DETR, 1996).

Under the Road Traffic (NHS Charges) Act of 1999, a centralised recovery system was introduced and the limits increased with hospitals now able to recover £354 for out-patient treatment and £435 per day for in-patient, with a maximum of £10,000. Table 4.4 shows how effective the new legislation has been. Within two years, the money collected for hospitals from motor insurance claims had more than tripled. Hospitals can only reclaim back treatment costs if the patient pursues a successful personal injury claim. Insurance companies are required to inform the CRU that a compensation payment is being made to a road victim. Where the vehicle was uninsured or the offending driver could not be traced, the Motor Insurance Bureau will be required to pay for hospital costs.

Table 4.4: NHS Trusts (England) income from Road Traffic Act

	£ million
1998-1999	19.6
1999-2000	26.4
2000-2001	67.0

Source: PACTS, 2001

Both BC and Sweden have reported also being able to claim back social security benefits from compensation awards, as victims are not to benefit twice.

Financing hospital treatment costs from insurance could hold much potential for LICs where hospitals will refuse treatment if the casualty has no proof of being able to pay. India's Supreme Court issued a ruling requiring hospitals (including private) to provide emergency services for road casualties.

4.5 Summary

While motor insurance is compulsory in almost all countries, the extent to which road victims are being compensated is much less clear, with few victims receiving any compensation in LICs. Lack of awareness of compensation rights, cumbersome claim procedures, and claim settlements vulnerable to misappropriation by solicitors are assumed to contribute to the lack of reliance on insurance compensation.

HIC case studies have reported efforts made to streamline compensation procedures and minimise settlement delays, and reform is also underway in India. However, in addition to financial compensation considerations, HICs have also begun addressing rehabilitation needs with the recovery of the victim, ideally to employment, as a key objective, instead of the former focus of financial compensation. LIC case studies do not appear to have begun to focus on rehabilitation, although the low cost Suraksha accident insurance scheme being introduced in Bangalore, with improved trauma care and acute medical assistance holds much potential for road traffic victims.

5 National road safety policy

The role of the motor insurance industry on road safety policy making is discussed below. Examples are also given of where the insurance industry has been very proactive and where insurance associations have developed their own road safety plans and strategies. Individual insurance companies are seen to also be able to make a difference in promoting road safety.

Motor insurers are involved in the senior level road safety body in the majority of the case studies, except for Karnataka and the UK. In the UK, while the ABI is represented on the Health and Safety Task Force on At-work Road Traffic Incident, it is not on the government's Road Safety Advisory Panel.

Table 5.1 : Insurance participation

	Central Road Safety Body
Costa Rica	Yes
Ghana	Yes
Karnataka	No
South Africa	Yes
BC	Yes
New Zealand	Yes
Sweden	Yes
UK	No
Victoria	Yes

The case studies are believed to be representative, with the insurance industry involved in road safety policy-making in many, if not most, countries. Other examples identified include the Insurance Association of Cyprus on the Ministry of Transport's Road Safety Awareness Committee, the Association of Insurance Companies on Greece's Road Safety National Committee, the Traffic Safety Committee of Insurance Companies (VALT) on Finland's Consultative Committee on Road Safety (and the Central Organ for Traffic Safety), and the Danish Insurance Association on the Executive Committee of the Danish Road Safety Council.

5.1 HIC case studies

The insurance industry has played a key role in at least three of the HIC case studies (BC, Victoria and Sweden). BC does not have a regional road safety coordinating body and as ICBC is also responsible for driver and vehicle licensing, ICBC has functioned as the lead agency in road safety. The development of Sweden's Vision Zero, i.e. the concept that no death or permanent disabling injury on the road should be accepted, was influenced by Sweden's Road Safety Administration's Road Safety Director's previous experience in the motor insurance sector where they were able to prevent child car occupant fatalities.

The TAC is one of the three lead organisations on Victoria's Road Safety Council, along with the police and VicRoads (road authority) and the TAC helped finance the Victoria Solution, a coordinated and intensive programme which halved road deaths in Victoria. In New Zealand, ACC's road safety promotion role is expected to increase. As of April 2002, new legislation will make it a responsibility for ACC to 'promote measures to reduce the incidence and severity of personal injury'.

5.2 Road safety advocacy

The commitment to road safety of some insurance companies can be seen in Box 5.1.

Box 5.1 Road safety objectives

ICBC Corporate statement	Helping British Columbians Take the Risk Out of Road Transportation
ACC Pledge	Our pledge is to prevent injury, and to provide the best treatment and care if injury occurs, and to quickly rehabilitate people back to work or independence at a price that offers high value to premium payers and all new Zealanders.
TAC Mission Statement and Vision	The Transport Accident Commission's mission is to reduce road trauma and its impact on the lives of accident victims in a caring, efficient and financially responsible manner. Our vision is to provide Victorians with the most equitable personal injury compensation scheme in the world and set international standards in its delivery. To be a leader in changing attitudes and behaviours so that Victoria sets international standards for road safety.

In Spain, the insurers have been very pro active in promoting road safety. The association of Spanish Insurers (UNESPA) presented its own safety programme at the XIIth Motor Insurance Conference in 1996 and targeted six key areas:

1. reactivation of insurance sector projects, including the establishment of a permanent team of road safety experts to plan and conduct the recommendations of UNESPA's Road Safety Committee,
2. closer collaboration between insurers and government authorities and private sector, and the establishment of a new road safety organisation,
3. improving the collection and processing of the statistical data available to insurers,
4. research into the causes of road collisions, especially the human factor, and financing a research chair,
5. improved road safety education at home and in schools,
6. increased dissemination of road safety information, including via the media (CEA, 2001).

The French Insurance Federation (FFSA) has signed a partnership agreement with the government. It covers a five-year period and includes the voluntary donation of 0.5 per cent of premium income. Six target groups have been identified, including novice and professional drivers, motorcycle riders and the elderly.

In the US, the Insurance Institute for Highway Safety (IIHS) is a world-renowned research organisation which is also very proactive in promoting road safety. In 1969, William Haddon, the first federal highway safety chief (and founder of the 'Haddon Matrix'), became the IIHS president with a 'mandate to convert it into a research-oriented organisation' (IIHS, 2002). Examples of previous IIHS advocacy work includes:

- Promotion of the raising of the legal minimum age for buying alcohol to 21 in all states.
- Documentation of the effectiveness of laws providing for quick administrative revocation of drivers licenses for those who fail or refuse to take a breath test
- Highlighted the teenage driving problem which has led to the development of graduated licensing programs.
- Documented benefits of motorcycle helmet laws
- Documented effectiveness of red light cameras (O'Neill, 2000).

5.2.1 Individual companies

Private sector companies, as well as the state providers, have made a major contribution to road safety. Folksam and State Farm in the US (see Box 5.2) are two prime examples. Folksam is on the road traffic safety working group of the Swedish National Roads Administration as well as on several ISO road safety standardisation groups. Folksam represents Sweden on the European Enhanced Vehicle-Safety Committee (EEVC) frontal collision working group and a new working group for rear end impacts and it is also an active member of the European Transport Safety Council.

Box 5.2 State Farm: Road Safety Advocate

When on his first day in office, President Reagan overturned the legislation introducing air bags in new cars, State Farm began a legal challenge to reverse this ruling and reinstate them. Despite losing in the lower courts, State Farm persisted and finally won in the Supreme Court. Air bags are now thought to have saved thousands of lives in the past twenty years.

State Farm's website notes that 'Over the last four decades, State Farm has initiated or supported numerous measures designed to reduce the damage to people and cars that result from crashes. This includes eliminating roadside hazards, encouraging use of seat belts; getting air bags into cars; improving car head restraints; and looking at ways to reduce deaths and injuries of children in crashes. Safety improvements are among the factors that help insurance companies control premiums. State Farm was able to reduce its auto insurance premiums almost $2.7 billion between 1998-2000. The company also returned about $2.6 billion in dividends to its customers between 1997-2000' (State Farm website, 2001).

In 2001, State Farm's contribution to road safety was acknowledged by the Association for Safe International Travel (ASIRT), a Washington based NGO working for reduced road danger in LICs, which gave State Farm an award for their work.

5.3 Summary

Insurers appear to be involved in road safety councils in many countries, although the extent of active involvement is unclear. They have taken a leading role in several of the areas with the best road safety records, i.e. Sweden, Victoria, British Columbia, with the UK a notable exception.

Insurance associations, as seen in Spain, Sweden and US (IIHS), and individual companies (Folksam, State Farm) are also seen to be actively promoting road safety, even where the insurance system is provided by the private sector.

6 Road safety funding and sponsorship

This chapter looks at the financial donations made to road safety (6.1) and provides examples of specific interventions (6.2).

6.1 Road safety funding

6.1.1 Mandatory levies

Finland was the first country to incorporate a road safety levy in its insurance premiums, with the Ministry of Social Affairs having the authority to order the inclusion of a 'reasonable' amount in the insurance premium for road safety promotion for the benefit of society. It has exercised this right over the past half century, and a levy of only 1.1 per cent of the insurance premium has financed the operations of Liikenneturva, the Central Organisation for Road Safety (Gerondeau and Hoban, 1994).

A few more countries have since adopted this approach. Slovakia requires the motor insurance industry to give 2 per cent of the total premium income to a prevention fund (Gerondeau and Hoban, 1994). In Switzerland, premium surcharges fund two road safety organisations, the Bureau Suisse de prevention des accidents (BPA) and the Fonds de securite (FSR). The latter focuses on specific themes and is financed solely from a legally mandated levy of 0.75 per cent (CEA, 2001). Korea collects a small levy of 0.3 per cent insurance premium which is dedicated to the Korea Road Traffic Safety Association (RTSA), the lead organisation for coordinating road safety activity.

At a policy seminar on road safety for Central and Eastern Europe, the World Bank recommended several companies introduce a tariff equivalent to 8 per cent of third party premiums for a road collision prevention fund. A few years ago, Zambia's National Road Safety Council prepared a proposal for introducing an insurance safety levy. A premium policy safety surcharge was also discussed a few years ago in Cyprus but was rejected by the insurers.

6.1.2 Voluntary donations

Arrangements

Voluntary donations have been much more popular among the insurance sector (See Table 6.1). In 1992, Fiji's Insurance Commissioner and the insurance industry agreed to introduce a voluntary levy, the equivalent of 10 per cent of third party motor insurance premiums at the time, to provide a sustainable funding source for the new NRSC. Insurance companies pay the NRSC on a quarterly basis according to the number of new policies and this source amounts to 60 per cent of the NRSC's income (TRL, 2001). The Austrian Road Safety Council, established in 1959 and registered as a private company, also receives 60 per cent of its income from insurance companies (CEA, 2001).

Table 6.1: Road safety donations

	Agreed donation
Costa Rica	No
Ghana	Yes
Karnataka	No
South Africa	2.5%
BC (Can)	No
New Zealand	No
Sweden	NO
UK	No
Victoria (Aus)	No

While the TAC (Victoria) is required by law to invest in road crash reduction and injury rehabilitation programmes, no specific amount has been decreed. In 1990, the TAC donated 3 per cent of its premium income to road safety activities. Within a few years, the donation had grown to almost 10 percent of premiums and funded the Victoria Solution programme, which halved deaths in less than four years.

Box 6.1: Ghana NRSC Act (1999), Levy on compulsory insurance premiums

An insurer shall, on receipt of any premium in respect of a motor insurance policy, pay to the Commission through the National Insurance Commission such part of the premium as may from time to time be agreed upon by the Commission, the National Insurance Commission and the Ghana Insurers Association.

In 1999, South Africa's RAF agreed to allocate 2 ½ per cent of its annual earnings to road safety and has continued to do so. As shown in Box 6.1, Ghana's National Road Safety Commission (NRSC) Act included funding by the insurance association. The NRSC has only recently been established and the amount to be allocated to road safety has yet to be decided.

Several other countries allow but do not require insurance companies to invest in road safety. In Poland, insurers can donate up to 0.75 percent of third party premiums compared to 0.70 per cent in Hungary and up to 4 per cent in the Czech Republic (Gerondeau and Hoban, 1994). As noted previously, insurance companies in France have agreed to allocate 0.5 per cent of their motor premium income to road safety (CEA, 2001).

Sponsored organisations

As mentioned previously (See 5.2), Swiss insurers finance two road safety organisations, the BNP and FSR. With 74 staff, the BNP is aimed at preventing home and leisure related accidents. The FSR is reported to be more focused with specific prevention themes selected, including speed limits, pedestrian and cycle path lighting, alpine path safety, etc.

The motor insurance industry assists road safety organisations in several other European countries. Belgium insurers support the Belgian Road Safety Institute while the French Insurance Federation co sponsors 'LA Prevention Routiere'. In the UK, the ABI used to give large donations to the Royal Society for the Prevention of Accidents (RoSPA).

In Austria, the national insurance association has been funding the Austrian Road Safety Board for over 40 years. The Board is an independent body dedicated to promoting the implementation of research findings. With 170 staff, it is organised into five specialised departments:

- Institute of Traffic Education
- Institute of Traffic Psychology
- Institute of Traffic Engineering and Accident Statistics
- Department of Driver Education and Vehicle Technology
- Communications and Public Relations Department

In Finland, the Traffic Safety Committee of Insurance Companies (VALT) has been active for many decades in collecting collision data and conducting research (See Chapter 7 Research), and has undertaken more than 200 road safety initiatives. In Luxembourg, the Association of Insurance Companies is the main sponsor of the lead road safety organisation 'Securite Routiere a.s.b.l' which has conducted campaigns for child road safety, young drivers and general public.

Amounts

Information on the specific amounts insurers have spent on road safety is not as readily available as are examples of investment, but data was available from several of the case studies. ICBC's road safety expenditure is summarised in Table 6.2, showing the balance between engineering and enforcement measures in Traffic Safety Management with the "soft" Road Safety Educational Programs.

Table 6.2 ICBC's Road Safety Expenditure Profile (US$'000)

	1998	1999	2000
Traffic Safety Management			
Targeted Traffic Enforcement (Speed)	3,636	3,888	3,042
Impaired Driving Roadchecks	6,452	5,813	5,850
Photo Radar	4,404	10,984	9,776
Road Improvements	5,132	5,098	7,523
Intersection Safety Cameras	1,375	4,690	3,631
Vehicle Safety Devices	224	211	157
subtotal Traffic Safety Management	21,223	30,683	29,978
Road Safety Educational Programs			
Automated Driver Knowledge Test		698	73
Crash, Crime Contravention	714	1,590	1,934
Graduated Licensing	3,513	3,313	3,415
Other Driver Services Projects	369	721	531
Advertising & Publications	3,829	2,086	1,386
Regional Loss Prevention	2,602	2,315	3,548
Road Safety Research & Admin	1,838	2,533	1,775
Youth Employment Initiative	1,031	734	1,312
subtotal Road Safety Educational Programs	13,896	13,990	13,974
Total	35,118	44,673	43,952

Source: ICBC, 2002

The TAC invested US$11.5 million in road safety in Victoria in 2001. Although responsibility for black spot treatment now rests with VicRoads and the federal government, TAC contributed a US$120 million safety dividend for this area in a one-off payment to the government from its profits last year. ACC has funded over US$500,000 to increase the coverage and number of booze buses for the New Zealand Police.

In 2001, the INS in Costa Rica invested $144,508 in production of successful campaign "We only have one way forward—to drive responsibly. Ghana's NIC contributed 10 million cedis to a publicity campaign involving bulletin boards at Christmas 2000. In Spain, the Association of Spanish Insurers (UNESPA) road safety programme cost an estimated (100 million ESP) (CEA, 2001). Folksam estimated it invests over US$ 500,000 (600,000 Euros) per year in road safety research.

6.2 Sponsorship of specific interventions

The insurance industry in many more countries has chosen to invest in road safety by sponsoring activities and projects. Findings from the case studies are supplemented with examples from elsewhere, including those identified by the European Insurance Committee in a recent review of its members. Examples have been organised and presented by their main sectors of

- Education and publicity
- Road safety grants and awards
- Driver training
- Vehicle safety
- Traffic law enforcement
- Road safety engineering improvements

The chapter closes with a review of how the effectiveness of these interventions are evaluated.

6.2.1 Education and Publicity campaigns

Publicity campaigns have been a popular activity for sponsorship in both HIC and LICs. In Costa Rica, the INS gives money to national road safety campaigns and also undertakes its own campaign. In 2001, $144,508 was spent on the production of a successful campaign "We only

have one way forward—to drive responsibly". It also produces press bulletins with traffic accident statistics and works with the media to publicise road safety.

African examples include South Africa's RAF being the main sponsor of the Arrive Alive campaign. In Ghana, the NIC sponsored a road safety billboard campaign during the Christmas holidays in 2000. Botswana's Road Accident Fund has promised a five-year campaign to dissuade people from risky behaviour such as drinking and driving or riding in an open vehicle by publicising the impact of this type of behaviour on compensation.

In Victoria, the TAC conducts a range of projects including public education involving advertising, public relations exercises and sponsorship and youth initiatives including direct mail and educational resources for schools. In the UK, the insurance company Direct Line, has co-sponsored conferences and projects, including a Road Safety Week in recent years.

In the Netherlands, the Dutch Association of Insurers finances a traffic safety publicity campaign each year. Previous themes have included head restraints (1996), seat belts (1997), bicycle lights (1998), and safe following distances (1999 and 2000) (CEA, 2001). The Swedish Insurance Federation has promoted information campaigns on use of medicine and driving.

Drink driving and speed campaigns are common, as are campaigns targeting children, with examples shown below.

Drink drive campaigns

The Swedish Insurance Federation has produced a video discussion programme on 'How to do a better job with people that have been drink driving' for the police, the criminal prosecution and justice officials and for the medical services. They have also invested in trying to adapt lessons from the USA, including the 'Every 15 minutes' project and the work of MADD (Mothers against Drink Driving). The Federation is sponsoring a three part TV show with anti drink drive messages targeting teenagers.

ICBC has promoted such programmes as Administrative Driving Prohibition and Vehicle Impoundment which helps the police target impaired drivers and drivers operating without a license. ICBC also works with the Ministry of the Attorney General to introduce legislation requiring a zero blood alcohol content for new drivers. In the UK, the ABI used to sponsor drink drive campaigns.

Speed campaigns

ACC's Down with Speed programme started as an international literature review to determine facts about speed as a factor in crashes. Box 6.2 shows the contents of the Down With Speed report. The programme did not stop with the production of a report but included the dissemination of key material to local road safety committees. ACC now funds local community programmes to promote the "slow down" message in their local areas. Eighteen of these programmes are currently being funded during and ACC also pays for the associated national advertising.

Box 6.2 : Chapter Outline of 'Down with Speed' publication

PART A: RISK, SPEED, CRASHES AND INJURIES
1: The Relationship between Vehicle Speed and Crash Risk
2: Managing Mean Speed and Variations in Vehicle Speed
3: The Impact on the Human Body of Different Crash Speeds
PART B: COUNTERMEASURE: VEHICLE AND ROAD DESIGN
1: Vehicle Design
2. Roading Factors and their Impact on Speed
PART C: COUNTERMEASURES: ENFORCEMENT, PUBLICITY, AND PENALTIES
1: Driver Capability at Different Vehicle Speeds
2: The Impact of Enforcement on Vehicle Speed
3: Publicity
4: Tolerance levels on Speed Limits
5: Penalties
PART D: TIME, FUEL, ENVIRONMENT
1: Travel Time
2: Fuel Use and Other Vehicle Operating Costs
3: Environment
PART E: NEW ZEALAND AND THE SPEEDING PROBLEM
1: The Impact of New Zealand Conditions on Vehicle Speed
2: Data Analysis

ICBC has also invested in a major campaign to control speed. Started in the early 1990s, Speed Watch is a community based volunteer programme aiming to reduce speeding and the number of speed related crashes by increasing driver awareness of their travelling speeds. Where the local community is concerned about speeding, police will train volunteers in how to use portable radar equipment and an electronic digital boards (speed reader boards) to monitor vehicle speeds. Drivers receive instant feedback with their speed being displayed on the board. Volunteers keep records of vehicle speeds and provide these to the police to assist them with their planning.

Since 1994, ICBC has provided 65 speed reader boards at an average cost of $2,500. In 1997, the Speed Watch volunteers donated more than 11,000 hours and checked more than 708,000 vehicles. There are more than 2,400 volunteers working on 75 active Speed Watch groups in BC.

Children's road safety

ICBC's child safety programmes include Way to Go! and Bike Rodeos. Way to Go! aims to increase the number of children who walk, bike, use public transport or carpool to school whereas Bike Rodeos involves AutoPlan brokers teaching children about rules, responsibilities, and safe cycling.

Costa Rica's INS sponsors the Safety Brigades programme which is based in schools and nurseries and covers both home and road safety. This programme was estimated to have reached 6,339 pre-schoolers, 2800 primary students, and 46 children with impaired vision in 150 educational centres in 2001.

In Greece, the Association of Insurance Companies has sponsored the development of Road Training Parks for children while in Belgium, the national insurance association has co-sponsored a campaign to put reflectorised materials on childrens' school uniforms and book bags. UK insurers were the main sponsors in the early development of the Children's Traffic Club and are

still involved in supporting this programme aimed at instilling safe road user habits in young children and their parents.

Road Safety Publications

A few insurance organisations produce road safety publications. In the US, the IIHS publishes Status Report which publicises road safety research findings. In Spain, UNESPA publishes a Road Safety Information Bulletin while in India, the Loss Prevention Association produces a quarterly Road Safety Digest with news of road collisions and safety activities. Costa Rica's INS finances and distributes a small brochure on safe driving to drivers when they purchase their compulsory motor insurance.

ICBC publishes a quarterly magazine, 'Recovery', which focuses on how to ameliorate the consequences and prevent crashes, as well as how to help injured people recover. Begun in 1990, each issue focuses on a specific theme and is available on-line, including recent back issues.

It should be noted that despite their popularity, public information campaigns are believed to have limited effectiveness on their own and require support from other interventions, such as engineering or enforcement, to be effective. This is discussed further in the section on evaluation where the lack of evidence on the effectiveness of publicity campaigns is highlighted.

6.2.2 Road safety grants and awards

BC

ICBC promotes community road safety participation through the use of grants, awards and scholarships. The Autoplan Broker Road Safety Grant programme offers grants throughout BC for contributions to recognised road safety issues within the local community. Individuals, youth groups and community groups are all eligible for the grant programme, and youth groups are particularly encouraged to apply.

A grant application is obtainable from the internet or via a telephone request. The application package includes a project plan with a detailed budget, a media plan to promote the project, a presentation plan to the local community, and a signed copy of the rules (and a signed consent form) if the applicant is under the age of 19. The Autoplan Broker RoadSense team will also help applicants identify practical objectives, activities, schedule, budget and measurement plan.

The Autoplan Broker Road Safety Grant programme is administered by 15 Regional Grants Committee, which consist of Autoplan brokers and ICBC road safety experts. If the grant is awarded, a RoadSense Team will be assigned to supervise and assist the project team.

The grant is for one–year projects and a mid term report is required. The final report includes a financial statement and a review of how well the objectives, budget and timelines were met, as well as the impact of the community and local awareness.

ICBC also offers thirty road safety scholarships for Grade 12 secondary school students who have made a commitment to promoting road safety and who are planning to study full-time at a post-secondary institution in British Columbia. The award is for $2000 and two recipients are chosen by each of the regional RoadSense Team committees.

6.2.3 Driver training

Advanced driver training is believed to be rewarded by insurance premium discounts in many countries but this is often on an individual company basis and difficult to document. In the UK, the ABI promotes the Pass Plus programme. Developed by the government and introduced in 1995, it is a training programme intended to be taken within the first year of passing the driving test. It

consists of six modules covering high risk areas where drivers could use more experience, i.e. motorway and dual carriageway driving, driving in towns, at night, in different weather conditions, etc. Since its introduction, 169,000 drivers have completed Pass Plus (DTLR, 2002).

In Victoria, the TAC has invested in a Learner Driver trial programme which offers individualised support programmes for learner drivers and their parents. Begun in 1999, the programme is expected to involve 6,000 parents. The supervisor/parent receives regular phone calls with the TAC providing individually tailored feedback. The TAC also provides a helpline and relevant fact sheets. The Learner Driver trail programme findings to date include

- supervised practice is up 43% (compared with the control group);
- participants are more likely to track their practice through the use of a diary or log;
- supervisors/parents are shown to be more likely to sit in on formal driving lessons;
- learners in the study are practising on average one hour per week split into two trips; time is the biggest single issue facing supervisors and learners in gaining practice (TAC, 2001).

In Belgium, insurance companies have collaborated with driving schools to promote driver training of young drivers by offering reduced premiums. The results were reported to be very encouraging but no details were provided in a recent CEA review (CEA, 2001).

Another programme aimed at young drivers is the I Promise Program, which involves greater parent and community participation in the supervision of novice driver training. It is supported by the Insurance Bureau of Canada and has been submitted for the endorsement by the Kiwanis International, an association with more than 13,000 clubs in 79 countries and over 600,000 members. Their motto is ‘Serving the Children of the world’. The distribution plan involves motor insurers who are requested to send out I Promise Program pamphlets with any insurance certificates sent to families with teen age drivers.

In Luxembourg, private insurance companies have sponsored the development of a driver training centre. The Dutch Association of Insurers has taken a different approach and has targeted the behaviour of drivers aged between 25-50 years old and have subdivided them into decent drivers, small offence drivers, average drivers, impatient drivers, risky drivers, ego drivers and big offence drivers.

The involvement of the insurance industry in promoting safe drivers and vehicles is less than that in other areas, i.e. shipping. This issue is discussed in Box 6.3

Box 6.3 Motor Insurance and Driver Licensing:

The extent to which the insurance industry protects its investment in motor vehicles is often compared to its more proactive approach with shipping. In a Transport Engineering and Control article, Semmens argued for insurance companies to be involved in the privatisation of vehicle and driver registrations (Semmens, 2000). Reasons why the motor insurance industry might not be interested in tightening up the licensing of drivers include the following:

Lack of incentive

1. Motor insurance is usually limited to third party coverage, with premiums often very low and set by government. Insurance companies do not have the same level of investment in individual motor vehicles as they do in ships, nor are they believed to 'pay out' in many of the cases.
2. In many countries, motor insurers can already refuse to license a vehicle or only offer it minimal third party coverage.

Lack of capability

3. Driver licensing would most likely require a different set of skills and capability that insurance industry does not currently have and which may be in scarce supply in the country.
4. Transport industry might not allow tightening of driver training/testing, regardless of who was responsible for driver licensing. Unlicensed driving is also a serious problem in many LICs which has resisted previous reform attempts.

No guarantee

5. Even if they were allowed to improve driver training and testing, there is no guarantee that improved testing will reduce crash risk, for
    a. Many drivers will already be licensed or driving.
    b. Driving experience rather than driver's license is believed to make a safer driver.
    c. Many collisions in LICs involve unlicensed non-motor vehicle road users, i.e. pedestrians, cyclists and animals.

6.2.4 Vehicle safety

Vehicle safety is a key priority of the motor insurance sponsored research (See Chapter 7), with occupant protection, i.e. seat belt and head restraints, campaigns found in several HICs. The Swedish Insurance Federation has been helping develop a seat belt reminder system. It has already been installed in several new cars and publicised on Swedish television and at road traffic safety seminars. A video has also been provided to the CEA and the EU High Level Group on Traffic Safety Matters. The overall aim is to get the EU to agree that every new car should have a seat belt reminder system installed. The federation has so far installed seat belt reminders in 1000 cars currently operating and are aiming for an instalment cost of only £10-£15 per car.

In 1997-98, the Belgian national insurance association paid for the purchase of two special vehicles which demonstrate the usefulness of wearing a seat belt. The police use these vehicles in their demonstrations at schools and events.

In the UK, Royal and Sun Alliance sponsored a national campaign to raise awareness of proper head restraint positions. Police research found that 95 per cent of car occupants had incorrectly positioned their head restraints, using them as head rests rather than for safety support. In an effort to minimise whiplash which is reported to affect 70 percent of all those injured on the motorway, a whiplash campaign was undertaken and thought to have reached 24 million people (ACPO, 1998).

6.2.5 Traffic Law Enforcement

Examples of motor insurers' investment in supporting the traffic police were found in several HICs, including the UK where the insurance industry co-financed the production of Association of Chief of Police Officer's traffic policing strategies and guidelines.

BC

ICBC has been sponsoring additional traffic law enforcement since 1984 with examples of four key programmes summarised below:

CounterAttack: ICBC's campaign against drink driving, CounterAttack, began with holiday season roadside checks in 1984. By 1995, it had grown to a five month programme in two regions, including Victoria, and the number of impaired driving crashes had decreased by 20-30 per cent.

Impaired drivers identified at roadside checks can receive warnings, 24 hour driving suspensions or charges of impaired driving. In 2000, the Royal Canadian Mounted Police and 12 municipal police forces were expected to conduct 126,000 hours of roadchecks. The programme is intended to expand each year with longer campaigns and more forces participating.

Safety Cameras: ICBC has invested $14 million in red light cameras which take two photos: one of the vehicle before it enters the intersection but when the light is already red and a second photo of the vehicle in the intersection when the light is red. The photo is mailed to the registered owner of the vehicle and includes the date, time, duration of the red light and the vehicle speed imprinted on the photo. Red light violations incur a fine of $144 and most result in two driver penalty points. With research showing the effectiveness of red light cameras, BC will have 30 cameras, rotating among 120 high collision intersections, by the end of 2000.

ICBC is responsible for collecting all provincial fines, including speeding fines, but the photo radar program ceased in June 2001.

Targeted Traffic Enforcement Partnership: Introduced with pilot projects in 1995, the Targeted Traffic Enforcement Partnership was province-wide within two years. In addition to the regular 100,000 hours of regular patrol time, ICBC pays for an additional 60,000 hours, usually between April and December. High risk routes are identified from crash reports, ICBC claims data and municipal reports. The 37,000 extra hours of enforcement financed by ICBC in 1999 ($6.2 million) resulted in the following charges:

- 120,672 speeding
- 105 driving while impaired
- 1,513 following too closely
- 2,458 intersection violations
- 900 unsafe lane changes

NZ

Under its 'Stop Bus' programme, ACC supplies 'booze buses' and other equipment necessary for compulsory breath testing to the NZ Police in return for a guaranteed minimum level of activity. ACC also supplements the enforcement with national advertising. ACC has recently funded $1.3 million to increase the coverage and number of booze buses for the New Zealand Police.

Greece

The Association of Insurance Companies in Greece has regularly campaigned for more priority to be given traffic law enforcement, especially the detection of drink drivers and uninsured drivers. The insurers have provided the traffic police with the following:

- alco-testing machines
- traffic police technical and material support

- training programmes on Road Safety using printed material and projectors,
- instruments for gauging the depth of lorries' tires
- traffic police training on vehicles' technical matters along with insurance legislation (CEA, 2001)

Italy

Italian motor insurers have offered to finance for the police a large number of breathalysers and assist with the SAFETY CARS programme whereby on foggy days, safety vehicles lead private cars on motorways (CEA, 2001).

6.2.6 Engineering improvements

The TAC was one of the first insurance providers to invest in improving hazardous locations and as mentioned previously, it gave a large one-off payment of AUS$240 million to the government for investment in hazardous location improvements. Insurers in North America, i.e. BC and US, currently have major engineering programmes underway, as discussed below.

BC

ICBC began considering the role of the road infrastructure in hazardous locations in the late 1980s. It then undertook a cost benefit analysis in the early 1990s to assess the economic argument for paying for remedial measures to be implemented sooner rather than later, i.e. as scheduled under local work programme. ICBC adopted the approach that the Road Improvement Programme would finance remedial measures estimated to have a 2:1 return over the first two years.

The Road Improvement Programme represents a partnership between ICBC and local road authorities. ICBC has three road safety engineers working around the province on this programme. Up until the past several years, ICBC had not monitored crash locations but now, ICBC's claim records are the main source of injury collision data.

Any community in BC can apply to ICBC for Road Improvement Program Funding. Examples include intersection improvements, i.e. additional signal heads, pedestrian indicators, and turning bays. The effectiveness of the programme is discussed in the following section. ICBC is also expanding its road safety engineering work and introducing a programme based on the UK Safer City Programme in Gloucester. In Kamloops, ICBC has invested in a new environmentally friendly way to de-ice the roads which does not involve salt. A three year pilot project has had very good claim savings already. ICBC has returned the claim savings to Kamloops local authority who have put the money back into the road safety programme. ICBC is hopeful that the reduction in claims will also result in a reduction in insurance premium for local residents.

United States

In 1999, following ICBC's lead, State Farm introduced its Dangerous Intersection Programme with an offer of US $100,000 for improvements at the 10 most dangerous intersections in the country. The selection criteria was based on State Farm's 1998 claim data and the percentage of vehicles being insured by the company in the area. State Farm also offered up to US$20,000 for professional engineering studies of each intersection which had been identified on the state's "most dangerous" intersection list. By June 2001, 100 of the 172 intersections listed on the state/provincial list had taken up State Farm's offer. The programme is expanding with State Farm expected to invest $2.4 million for the studies and engineering improvements on the first list and over $US 5 million for the new list based on 1999 and 2000 data (State Farm website).

6.2.7 Monitoring and Evaluation

The evaluation methods used on insurance sponsored activies were queried in the case studies. While, as seen below, several of the HIC case studies, especially NZ and BC, have well developed evaluation processes, this was not found to be so in the LICs. None of the LIC

counterparts were able to provide information on any evaluation methods used. In Ghana, the NIC did not have any specified objectives or targets with the Christmas holiday safety campaign it sponsored. There were no agreed performance targets or outputs but the NIC was disappointed at the size of the billboards their investment financed. The NIS is able to specify the number of children receiving a road safety lesson but it does not have information on any impact on such key indicators as practical knowledge, roadside skills, behaviour or attitude.

Publicity campaigns, even in HICs, are often judged in terms of the amount of news columns generated rather than a specific change in behaviour or road risk. Other areas, such as public opinion polls, can be justified as inputs into the decision making process.

NZ

The ACC Management Board decides which prevention programmes will be funded. Road safety must compete with other injury prevention programmes. A business case must be presented before the Board and the most common performance indicator is claim reduction, although indicators such as reduction in casualties or increase in seat belt wearing are also given.

ACC is required to evaluate the effectiveness of its programmes. Safety Belt programme was recently evaluated and the Stop Bus will be evaluated this year and Down with Speed next year. The Motorcycle programme will not be evaluated until it has been in place for three years although benchmark data has already been gathered. Effectiveness is determined on reduction of deaths and injuries recorded by the Police and their estimated impact on the reduction in the number and cost of claims. The Stop Bus programme was predicted to have a 5:1 benefit-cost ratio. Although ACC has the capability to undertake the evaluation in house, it almost always contracts it out to research organisations to avoid any perception of bias.

BC

ICBC has a Measurement and Monitoring Committee which evaluates its large programmes. It recently evaluated the Roads Improvement Programme and found that instead of the 2:1 return required, overall, it was achieving a 4.7:1 return on claim savings. On the basis of this finding, the expected benefit criteria has been increased to 3:1 to ensure the worst locations are being treated.

The intersection camera programme is currently being re-evaluated. ICBC has adopted the policy of investing 80 per cent in programmes that produce tangible results, engineering or enforcement, and 20 per cent in publicity and education programmes whose benefits are harder to quantify but are believed to include promoting community support for the engineering and enforcement programmes.

6.3 Summary

Few countries currently benefit from mandatory road safety levies on insurance premiums. Where these existed, they were 2 per cent or less (Korea 0.3%, Switzerland 0.75%, Finland 1.1%, and Slovakia 2%). Voluntary agreements exist in other countries, including Victoria which has donated between 3 and 10 per cent of premium income to road safety, Fiji has agreed the equivalent of 10 per cent of the premium (at the time), and South Africa is currently contributing 2.5 per cent of RAF income to road safety. Although national legislation specified insurers could donate up to 0.75 and 0.7 per cent in Poland and Hungary respectively, the amount recommended in 1994 by a World Bank team was 8 per cent of the average motor insurance premium.

Insurers have been more willing to invest in activities and projects that they have chosen rather than by straight forward financial donation. Many examples of insurance company sponsored road safety efforts were identified, although the vast majority was from HICs. LIC activity was still focused largely on publicity campaigns

The insurance sector in BC, Victoria and NZ has invested in larger scale engineering and enforcement programmes which are easier to monitor. ICBC still invests in community initiatives but this is seen more as a supporting mechanism for its larger projects.

With their efforts limited to individual activities and primarily through ‘a soft’ approach, LIC case studies do not appear concerned about documenting the effectiveness of their investments. Instead, they are thought to be more at the stage where it makes sense to invest in a ‘good cause’ but do not expect to get proof that it was successful. The HIC case studies, on the other hand, have had to justify the investment in road safety, at least for their larger projects.

7 Road safety research

The contrast between the HIC and LIC case studies is perhaps greatest in the area of research, as seen below in the insurance activities in Table 7.1.

Table 7.1 : Insurance sponsored road safety research

	Collision Investigation	Road crash costing	Vehicle safety	Casualty reduction
Costa Rica	No	No	No	No
Ghana	No	Yes	No	No
Karnataka	No	Yes	No	No
South Africa	No	Yes	No	No
BC	Yes	Yes	Yes	Yes
NZ	Yes	Yes	Yes	Yes
Sweden	Yes	Yes	Yes	Yes
UK	No	Yes	Yes	Yes
Victoria	Yes	Yes	Yes	Yes

The insurers in the LIC case studies have not begun investing in research and do minimal monitoring of claims. The latter is expected to increase as more insurance companies computerise their claims system. It should be noted that the insurance associations in Ghana and Karnataka are currently providing assistance to DFID research studies estimating the cost of road crashes in their country by allowing access to claim data, while insurance companies do this on a regular basis in South Africa.

The major road safety research activities in the HIC cases studies are summarised below along with that of other lead insurance sponsored research institutes. In addition, individual insurance companies often undertake or sponsor opinion surveys, with several examples being shown in this report.

7.1 Research organisations

7.1.1 International

Research Council for Automobile Repairs (RCAR)

RCAR is an international association of research centres financed by insurance. It focuses on the engineering aspects of crash repair, safety and training requirements for motor vehicles. It's objective is:

' to contain the cost of motor insurance for insurers and the motoring public by influencing the design of vehicles through dialogue and co-operation with manufacturers, such that motor vehicles become safer, less damageable, and more cost effective to repair after accident damage, and to pass on such information, where appropriate, through high quality reporting or training' (RCAR, 2001).

RCAR produces policy statements, design guides, position papers, and other information to guide those responsible for designing, constructing, repairing and insuring motor vehicles. With 24 research centres in 17 countries (all continents except for Africa), RCAR also encourages insurers in other countries to establish research centres. Argentina, Brazil, Columbia and Mexico have research centres which are RCAR members (website addresses included in Appendix B).

RCAR estimates its members spend US$55-60 million on research to reduce motor claim costs (collision and theft related), and that material damage accounts for half of all motor claims in most centres. RCAR serves as a forum to help exchange information, research findings and strategies between countries. The 2001 conference was held in Korea and as shown in Table 7.2, while the safety related topics focused on crash testing, prevention related activities were also presented.

Table 7.2 RCAR 2001 Seminar: Road safety presentations

Topic	Centre	Country
Comparison of Bumpers for low speed test	IIHS	USA
Low Speed Crash Tests—People Movers	NRMA	Australia
Road Safety Plan	CESVI Argentina	Argentina
Head Restraint “The Great Forgotten”	Centro Zaragoza	Spain
Dangerous Intersection Project	State Farm	USA
Using Crash Testing to Improve Occ. Safety	IIHS	USA
Head Restraint Evaluation	NRMA	Australia
Whiplash—Towards a Dynamic Standard	IIHS/AZT/Thatcham	USA/Germany/UK
Crash Repair Test—Side Impact	AZT	Germany
Evaluating new bumper systems w/ airbag	KART	Korea
Moose crash test	Lans.	Sweden
CESVIMAP Crash Test 2000-2001	CESVI Mexico	Mexico

Source: RCAR Newsletter, October 2001

The 2000 conference in Argentina included presentations on mobile phone involvement in fatal crashes (VAT) and road accident reconstruction and defensive driving courses (CESVI Argentina) (RCAR Newsletter, October 2000).

7.1.2 National

UK

The Motor Insurance Repair Research Centre, more commonly known as Thatcham, is an independent, non-profit research centre funded by the Association for British Insurers and by sales of goods and services. Established in 1969, it is internationally recognised for its expertise in impact test evaluation and repair analysis, along with vehicle security development.

Thatcham has been described as ‘an insurance industry investment dedicated to driving down the costs of vehicle repair and improving safety’ (Thatcham, 2001). Its key areas of work include security system assessment, crash testing, vehicle identification, training and group rating.

While traditionally focused on vehicle safety and repairs, Thatcham also conducts a major research programme in whiplash research and was a founder member of the International Insurance Whiplash Prevention Group, who are working together to develop a dynamic test protocol for whiplash prevention. Approximately 80 per cent of the £1.2-1.6 billion pounds spent on personal injury claims relate to whiplash and the UK insurance industry has given Thatcham an extra £1 million to build a state of art test sled (Evening Standard, Dec 7, 2001).

The Automobile Association (AA) Foundation for Road Safety is a charity dedicated to researching and promoting the safe use of the roads. Established in 1986 (European Road Safety Year), it is sponsored by several insurance companies and has produced quality reports on such key topics as Red-light running: accidents and surveillance cameras.

Sweden

Folksam, an insurance company well known for its commitment to road safety, has been studying crash safety for nearly 30 years. Three key research programmes are

- 'How safe is your car',
- in depth crash investigation using "black boxes", and
- whiplash

How safe is the car?: Every two years Folksam produces the 'How safe is your car' report which compares the different levels of safety based on road crash data. This work does not consider driver behaviour or risk of being involved in a collision, but instead focuses on the car's secondary safety features, i.e. its ability to protect during a crash. It compares death risk as well as the risk of becoming an invalid.

Based on the findings from 62,000 collisions since 1994 (from the 2001 "How safe is your car?" 2001), Folksam has been able to trace the development and attractiveness of safer cars. Folksam's research into the 'aggressiveness of cars, i.e. how dangerous they are for other cars in a road crash found sports utility vehicles to be 60 per cent more aggressive than the average car, while multi-people vehicles were 30 per cent more aggressive.

Black box technology: Black boxes have been installed in about 150,000 cars and enable the correlation between injury outcome and crash severity as well as the car's protective capacity in a crash to be evaluated. Black boxes are installed to measure both frontal and rear-end crashes. It has been found that acceleration is more important in explaining risk of injury than is change in velocity.

Whiplash protector: Partly developed from black-box results, the whiplash protector has been developed by Autoliv and Folksam and has been installed in second hand cars. The effectiveness of the whiplash protectors will be evaluated in 2002. More than 60 per cent of insurance injury claims are for whiplash injuries so this concern is shared by the insurance industry overall.

NZ

ACC's research investment has been channelled through the two injury prevention research institutes in NZ. Some is this is road safety related and has included the effectiveness of the Graduated driver licensing system. In addition, ACC has commissioned specific research to assist with the development of Injury Prevention Programmes. A review of NZ road safety research carried out in 2000 identified the following ACC efforts:

- Down With Speed
- Macro economic modelling of traffic crashes
- Case control study of modifiable risk factors for fatal and significant injury from motorcycle crashes
- Cohort study to identify risk factors for fatal and significant non-fatal injuries
- International Motor Vehicle Project Aimed at Countering Traffic Injuries

Victoria

The TAC funds research and development activities and is a financial sponsor of Monash University's Accident Research Centre. In partnership with the Ford Motor Company of Australia and Monash University Accident Research Centre, the TAC has commissioned a research and demonstration project to reduce road danger in Victoria through the use of in-car intelligent transport systems. The project's first phase has three objectives:

1. to identify intelligent transport system technologies that have the potential to enhance Victorian drivers' safety;
2. to equip a small number of demonstration vehicles with a mix of Safe Car technologies (i.e. ; speed management technology, interlock devices, collision avoidance systems and automatic trauma notification) and

3. to conduct research to determine whether these vehicles enhance safety, are acceptable to fleet users, and do not pose additional problems for Victorian drivers.

In 2001, TAC agreed to further sponsor the Monash Epworth longitudinal study on acquired brain injuries for an additional three years. This study is intended to improve the understanding of the long term needs of the brain injured.

Canada

ICBC has its own research department which undertakes low speed crash testing and has developed a facility to conduct 15 km/hr crash testing. Elsewhere in Canada, the private sector, including Royal & Sun Alliance insurance company, have sponsored the Ontario based Traffic Injury Research Foundation (TIRF) research into public opinion on key road safety issues, including safe driving practices.

The Saskatchewan Government Insurance (SGI) is responsible for both vehicle damage and injury and has a strong injury prevention mandate. SGI, the University of Saskatchewan and the World Health Organisation are collaborating on a joint project to study soft-tissue, brain and spinal cord injuries. One study considered such factors as demographic data, collision details, medical information, health related quality of life, and psychosocial indicators. Claimants were interviewed at six weeks, four months, eight months and one year after their injuries in an attempt to understand why some people recover faster than others. SGI has also given the University of Saskatchewan a $1 million grant for research into disability and recovery (Schubert, 1997).

US

The IIHS research is described as covering the three following areas:

- Human factors, including teenage drivers, alcohol-impaired driving, truck driver fatigue, and safety belt use
- Vehicle factors in both crash avoidance and crash worthiness, with a major crash testing programme
- Physical environment considerations including roadway design and roadway hazards (IIHS, 2001).

The IIHS' Vehicle Research Centre (VRC) was opened in 1992 with the objectives of

1) conducting vehicle research including full scale crash tests to reduce the losses of deaths, injuries, and property damage from motor vehicle crashes.
2) Influencing policymakers by supplying this information to automakers, suppliers, and consumers (IIHS, 2001)

As part of its crash testing programme, the VRC conducts front, front-offset and angle-barrier crash tests at up to 50 mph, car to car head on and front offset tests at up to 50 mph (each vehicle) and car to car side impacts as with right angle intersection crashes.

Latin America

A summary of the main functions of the four Latin American insurance sponsored research institutes belonging to RCAR is shown in Table 7.3. CESVI Mexico describes its work as including collaboration with others, including main public organisations, to improve traffic safety.

Table 7.3 RCAR Latin American National Institutes

Name	CESVI Colombia	CESVI Brasil S/A	CESVI Argentina	CESVI Mexico
Owner	CESVIMAP Int'l SA & 13 insurance co.	CESVIMAP Int'l & insurance co.	CESVIMAP Int'l & 10 insurance co.	CESVIMAP
Main tasks	Analysis of repair costs Training of experts (assessors) Road Safety-Traffic Accident Reconstruction Issue of Road/Vehicle Safety Bulletins	Development of repair technology Low speed offset crash test program Publication of research results	Training courses for insurance co., road safety professionals Production of video training tapes Technical publications	Analyse & control vehicle collision repair costs Publish results of research into traffic safety, in various formats, ensuring data reaches key sectors of motor & insurance industries

Source: RCAR, 2001

7.2 Monitoring and Evaluation

7.2.1 Collision investigation

The critical role insurance companies can have in identifying problems was recently seen in the US. A State Farm researcher notified the National Highway Traffic Safety Administration (NHTSA) in July 1998 of the pattern noticed over six years where the same vehicle type was involved in two-thirds of the 21 collisions involving a brand of tyres.

Box 7.1 Good practice: State Farm

Proclaimed in Congress as a hero, State Farm Associate Research Administrator Sam Boyden, was responsible for informing the National Highway Traffic Safety Administration of the crash trend involving a type of tyres. On national television, Boyden stated 'State Farm has one of the best-trained claim forces in the country…if it weren't for individual claim reps calling into our corporate office, I wouldn't be aware of this problem' (State Farm website, 2001).

State Farm is also collaborating with the Children's Hospital of Philadelphia and the University of Pennsylvania on a child passenger safety research programme in 16 states.

With negligence and liability directly affecting insurance outlays, reliable and accurate collision investigation is important to motor insurers. Botswana's Road Accident Fund has invested in sending senior investigators to a six-week course in the US on collision investigation. The insurance association in Finland, as shown in Box 7.2,has invested in collision investigation.

Box 7.2 Finland Collision Investigation Good Practice

Finland's insurer's have collaborated on a database which averages 60,000 crashes a year with 60 variables collected on each. They also sponsor the work of road investigation teams who are responsible for investigating all fatal crashes (270 variables collected on each party). They also investigate certain other crashes; in 2001, they investigated all crashes involving coaches, police cars, and snowmobiles (CEA, 2001)

7.2.2 Statistics

Insurance companies will also have access to data which the government could use in its road safety programmes. For example, some fatal road crashes will be avoided by the deployment of an airbag. The insurance companies will know which crashes involved a deployed air bag and potentially life threatening collision. The British Medical Association (BMA) recently recommended that the government consider requiring insurance companies to provide anonymised reports about all personal injury claims in an effort to improve injury surveillance (BMA, 2000)

The extent of under-reporting has been highlighted in previous TRL research. The number of road deaths reported to the insurers in Indonesia exceeded that recorded by the police by 50 percent (Downing, 1997). According to Switzerland's Accident Prevention Bureau, in an average year, the Swiss police register 30,000 injured while the insurance companies receive 100,000 requests for reimbursement for road injury. Thus the Swiss police under-estimate the number of injured by 66 per cent (FEVR,2000)

In the development of Ireland's Road Safety Strategy (1998-2002), much thought was given to the adequacy of official casualty and collision statistics and the problem of under-reporting. One recommendation was to discuss with the Irish Insurance Federation to see if a central motor insurance databank could be established and a pilot project was proposed to link insurance claim records with police data (Irish Times on the Web).

In Bahrain the insurance companies paid all the costs for developing and installing a computerised crash recording and analysis system, plus the computerisation of all driver and vehicle records, which were integrated with the crash database. Bahrain also stands out for its complete data system as garages are not allowed to repair a vehicle without a computerised report from the police

In Singapore the General Insurance Association is assisting police by allowing damage only collisions to be reported electronically which was to reduce processing time from seven weeks to seven working days. In Ghana, insurance companies are supposed to provide basic data on insurance claims to the NIC on an annual basis. The requested information is shown in Box 7.3.

Box 7.3 Ghana NIC claim database fields

1. Claim number
2. Policy number
3. Vehicle registration
4. Period of coverage
5. Date of accident
6. Type of claim
7. No. persons claiming
8. Percentage disability/disfigurement
9. Initial demand
10. Amount claimed/settled
11. Date of settlement
12. Date paid
13. How settled
14. Region

7.3 Summary

Although there were large differences found between examples of HIC and LIC in insurance sponsored road safety research, there were examples of Latin American countries with insurance sponsored research centres which were active in crash testing and promoting road safety. There appears to be good international collaboration through RCAR and although the research appears to be property damage focused, there are fewer but still very important efforts underway in reducing casualty severity, including whiplash injury protection.

Apart from specific research projects, the motor insurance industry's access to claim data offers valuable information to road safety. The traditional main data source (and often only data source) for road safety is the police statistics and the value of claim data as an alternative source has already been shown in Indonesia and Switzerland. Moreover, police data is collision focused and is tantamount to a disease being monitored by its initial prognosis. While important in its own right, there is also a need to monitor the progress of the disease/injury and what affects the victim's recovery. Involvement of the insurance sector is also believed to promote a science-based approach to road safety, with claim data being a useful source of data.

8 Conclusions

The overall aim of the study was to identify how the motor insurance industry could assist in reducing the burden of road trauma in Low Income Countries (LICs). With this overall aim in mind, important objectives were:

1. provide an overview of the motor insurance industry's efforts in promoting road safety and ameliorating the consequences of road collisions,
2. highlight good practice, and how procedures can be improved in LICs
3. review the implications of motor insurance for DFID policy, namely
   - protecting the livelihoods of the poor and
   - promoting safety through partnerships between insurance and safety organisations
4. identify any problem area which would justify further research efforts.
5. Identify next steps required in order to achieve the overall aim

It compared a small number of case studies from LICs with those from HICs, as well as between fault/no-fault, and state insurance and private sector systems. The study also included examples from other countries, especially regarding prevention and research activities. The findings are summarised below.

8.1 Motor insurance and road safety: LIC current situation

Involvement of the LIC insurance industry in road safety was considered in the following five ways:

- Pricing incentives to encourage safe driving
- Compensating road traffic casualties
- Participating in policy making and advocacy
- Funding and sponsorship for prevention efforts
- Research

LIC motor insurers do not appear to have promoted safer driving through their insurance policies. Motor insurance coverage is not monitored and is believed to be very low in many countries as are premium tariffs. Nor is there any guarantee that insurers could have encouraged safer driving, even if more vehicles were insured and premiums were higher and more sensitive to pricing mechanisms. There is little evidence which shows pricing incentives promote safer driving (and this is believed to also apply for commercial drivers). While such incentives as no-claims discounts may encourage people to reduce their premium by not reporting any claims, this does not reduce the risk to others.

With limited premium income, there will inevitably be restricted amounts available for compensation awards. In addition to the adequacy of compensation awards, there also appears to be a problem with few casualties claiming and collecting compensation. Victims will also be dependent on solicitors for their claims and it will not always be in the solicitor's interest to settle quickly.

Of the four LIC case studies, the insurance industry is involved in three of the national road safety management bodies. In terms of funding road safety, South Africa's RAF has agreed to contribute 2.5 per cent to prevention activities and Ghana's motor insurers are expected to donate a percentage of premium income. The state insurance provider in Costa Rica has also invested in large publicity campaigns while the insurance industry in Karnataka has not been involved in either promoting road safety or investing in prevention efforts.

Very little road safety research appears to be underway in the LIC case studies with the motor insurers still in the process of computerising claim data. Research centres do exist elsewhere,

especially in Latin America, and while focused on vehicle repair, they are also concerned with casualty and crash reduction.

8.2 Good practice for LICs

There are lessons to be learned from both HICs and LICs. While motor insurance compliance is low in many LICs, South Africa's system of collecting third party injury insurance through a fuel levy makes non-compliance virtually non-existent. If this is not possible, than every vehicle inspection and registration procedure should include checking insurance coverage and a windscreen decal system should be used (financed by policy holders) to demonstrate proof of insurance.

While it is beyond the scope of this study to recommend a liability system, i.e. fault vs no-fault systems, most HICs have felt the need to impose time restrictions on claim settlement procedures, as France did in the mid 1980s. Likewise monitoring of court decisions, as done in Sweden and India, will promote practical expectations and benefit all parties if precedents are publicised. LICs should also learn from HICs of the need to consider rehabilitation needs in addition to financial settlements. LIC governments should consider requiring insurance companies to reimburse hospitals for the medical services they provide to road casualties, as in the UK.

Finland and Fiji demonstrate good practice with regular financial donations from the insurance industry. Fiji operates under an agreed rather than mandated system but it still provides a consistent and substantial source of funding for the NRSC. State insurance providers, such as Costa Rica's INS or South Africa's RAF would do well to learn from the experience of Victoria, British Columbia or New Zealand as to how much more the state, who is also responsible for health and social services as well as transport and police, can do to reduce road collisions. ICBC appears to have the most developed system of evaluation, even with small community programmes. Evaluation is important to minimise the risk of investing scarce resources into 'token' campaigns.

Lessons from HICs include the need for early intervention and priority to be given to rehabilitation. Instead of financial settlements, the objective should be for a recovery to a full life, including work. As seen by the HIC case studies, reforms are still being made in how victims are treated, with more information and consultation being offered to them.

In terms of research, RCAR serves a useful role in sharing experience and expertise among national research centres. Individual organisations like the IIHs, Folksam and State Farm indicate the difference the motor insurance industry can make by promoting a research based approach and making good use of its claim data. Ghana has moved beyond the basic monitoring of premium income and claim expenditure. The NIC requests data on individual claims, including the final award, settlement duration and extent of disability.

8.3 DFID Policy

This study was previously described as complimenting two of DFID's policies: Sustainable Livelihoods and GRSP support. The relevancy of the study findings to these two areas is discussed below.

8.3.1 Sustainable Livelihoods

The study findings do not bode well for vulnerable road users and public transport passengers who account for the vast majority of road casualties and who will benefit the most from third party insurance compensation. The poor are believed to account for a large share of these road user groups. However few are believed to receive compensation for road injuries (1% in Bangladesh) and the compensation awards will be restricted due to the low premiums and insurance coverage. Victims rarely receive information on their rights of compensation and there is little monitoring of the number of claims and claim settlements.

The poor will be unfamiliar with legal procedures and will be dependent and thus vulnerable to solicitors. With little if any savings, the poor will not be in a strong position to bargain over compensation as medical and funeral expenses will need to be paid, and the casualty will most often be a male 'breadwinner'. Even after the settlement is agreed, the poor are also not expected to be in the position where they can save much of any lump sum award for future use (as intended). (UK research has showed that awards intended to compensate for a lifetime of disability were spent on average within 8 years).

With a basic objective of sustainable livelihoods being the ability of households in LICs to recover from a shock, there appears to be much scope for improving the compensation system to recover so that casualties stand a better chance of being rehabilitated and families are more able to cope with the economic consequences of a road death. The pilot projects proposed in the Phase two project focus on the post crash recovery system for low income households.

8.3.2 Partnerships

The motor insurance industry will have a much greater impact on road safety if it works in collaboration with other organisations as opposed to independently. Partnership potential includes the following

- Active participation on national/state road safety management bodies, especially with promoting a data based, research strategy towards road safety.
- Collaboration with the health sector in improving medical services for road casualties to increase their likelihood of recovery.
- Collaboration with NGOs and citizen groups to ensure the general public is aware of compensation rights and procedures.
- General support to GRSP

8.4 Next steps

The three recommendations below pertain to donors and organisations promoting road safety overseas. Suggested guidelines for the motor insurance industry in LICs have been provided in Appendix A.

8.4.1 Follow up research study

Many questions were raised but could not be fully answered by this introductory overview. For instance, it has not been possible to even identify the number of motor vehicles insured or the number of claims accepted in some of the countries, much less evaluate the benefits of the no-fault system for the role of the state in providing insurance or setting premiums.

This scoping study was originally proposed with a follow-up study on motor insurance compensation, which was to research the experiences of low-income households. Between the findings of the case studies and the results of an ongoing DFID funded crash costing project, there was expected to be a solid base of data on road victims and insurance compensation. The crash costing pilots are not yet completed, but preliminary results indicate that a very small percentage of road victims are being compensated from motor insurance. This strengthens the need for research to find better ways of protecting the poor after they have been involved in road crashes. A proposal will be prepared when the detailed findings on compensation are available from the crash costing study (see outline proposal in Box 8.1 below).

Two proposals for follow-up research are presented below. Assuming sufficient interest is received, these proposals will be developed and submitted as part of the next KAR research application programmes.

Box 8.1 Research Option 1: Road Casualty Recovery and Compensation Study

Background
Based on the limited knowledge available, it is believed that motor insurance has a very limited and belated role in the recovery of road traffic victims, especially those who are poor, in low-income countries. The poor will have little (if any) savings to pay for emergency medical services required or to compensate for loss of income and are assumed to be unaware of any insurance compensation possibilities. These factors will aggravate the impact of a road death or a serious injury on a low-income family.

Purpose and Outputs
To understand how low-income road traffic victims (i.e. bereaved and seriously injured) recover from road crashes in order to identify opportunities for improvement.

Key outputs from the research will include:
1. Improved awareness of coping strategy of low-income households to the shock of a serious road collision, and the role of motor insurance compensation
2. Better understanding of the medical treatment of road casualties (both services available and affordable to the poor).
3. Empowerment of road traffic victims through increased awareness among low-income households of compensation rights and procedures.

Methodology
A comparison will be made of the recovery patterns for bereaved and injured road victim households in different countries. Local data is expected to be collected from three main sources: baseline surveys of insurance and injury care, victim surveys, and company surveys.. The proposed baseline surveys will document the different insurance coverage and compensation services available as well as the medical services available.

A sample of households which have been affected by road death and serious injury will also be surveyed. These households will be identified from the crash study and from insurance company records. Victims experience will be documented, including what and why the family responded as they did regarding medical treatment and financial compensation.

Company surveys will be undertaken to identify if private or local insurance schemes are offering better alternatives to the low income. These are expected to include international companies and organisations such as Shell and Oxfam, transport associations and fleet operators, including bus services.

Target countries and beneficiaries
It is proposed that this research build on the base provided by the ongoing DFID crash costing study and be undertaken in the same countries, South Africa, Bangladesh Ghana and India (Karnataka), although it should be noted that some of the local counterparts in these countries will change (A link with the South African Safer Communities Programme is intended). Uganda, where the proposed local counterpart has coordinated recent WHO Road Trauma Prevention Initiative (which developed trauma registries) and is the coordinator of the Road Traffic Injury Prevention Group of the Global Health Research Forum.

Karnataka: CTC (Comprehensive Trauma Consortium)
Bangladesh: Ministry of Health (Health Economics Department), Institute of Mother and Child Health,
Uganda: Injury Control Centre
Ghana: Ministry of Health and School of Public Health
South Africa: RAF and UNISA

Box 8.2 Research Option 2: Improving the Motor Insurance Practices

Background

This study has identified provisional guidelines for the motor insurance industry based on a desk study review. It is important that these guidelines are taken forward by a participatory process with key stakeholders and then disseminated through the GRSP knowledge base and in-country workshops. Also there are good opportunities for improving crash information by establishing standard data systems for insurance and linking these to police and health records. It is recognised that there is some bias particularly in reported cases of crashes but there are also advantages in routinely collecting more long-term information on crash consequences.

Purpose and Outputs
To develop and disseminate good practice guidelines for the motor insurance sector including information systems to enhance the protection of road crash victims especially the poor.

Key outputs include

Agreed guidelines
Claim monitoring pro formas
Recommended claim information systems
Workshops

Methodology
This would begin with a participatory approach, discussing the findings and proposed guidelines of this scoping study at regional conferences. These are expected to be coordinated with the annual RCAR conference and/or regional conferences of insurance card schemes, i.e. Yellow Card, Brown Card.

Examples of pro formas include: code of standardised claim report (minimum dataset but with location details), evaluation methods for assessing effectiveness of sponsorship, complaints form, information booklets for both policy holders and victims, etc, codes of practice. Information systems would be reviewed and a recommended system developed.

Target countries and beneficiaries
It is proposed the initial focus be limited to two countries: India and Ghana. The focus of best practice would be an improved compensation system for the poor.

India: Loss Prevention Association, All India Insurance (Karnataka)
Ghana: National Insurance Commission and State Insurance Corporation

8.4.2 Motor insurance working group

An international motor insurance working group should be established, with insurance practitioners/officials from both LICs and HICs, including RCAR members. This working group would provide the development of good practice guidelines, information notes and training programmes and act as an advisory group for follow-up studies. It should have a strong link with GRSP.

8.4.3 Motor insurance coverage in donor projects

In general (and regardless of whether or not a follow up research study is approved), donor financed road safety projects/components should include the following:

- Road safety objectives should include the reduction of the impact of road crashes, and not just the incidence of casualties/crashes which ignores the plight of those casualties not avoided, many of whom will be low income and vulnerable to the economic shock of a road crash.
- Road crash data specialist inputs to liase with health sector, insurance association and National Insurance Commission to identify what casualty or claim data is currently being collected and what data should be monitored.

8.5 Conclusion

Based on very limited data, this review has provided an indication that the poor, when injured in road crashes, are likely to be under-protected by motor insurance systems and suffer from inadequate compensation and delays. This in turn may cause difficulties in getting much needed health care.

Improvements in motor insurance systems and their delivery appear to offer considerable opportunities to alleviate 'shocks' from road crashes and help victims recover their full health.

The insurance companies have also shown good support in some countries for promoting road safety and supporting interventions and research. This support needs to be scaled up to other countries and road safety stakeholders need to engage insurance organisations in planning safety improvements particularly as they can provide a strong link between transport and health.

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Appendix A: Draft Proposed Motor Insurance Loss Prevention and Road Safety Guidelines

Road Safety Policy

1. The motor insurance industry should be represented on the road safety advisory body.
2. The insurance industry should be requested to present regular reports on the road casualty and motor claim situation, i.e. numbers of policies by vehicle type, number of claims received, number of casualties who received compensation, average settlement amounts, disabilities resulting from road collisions, settlement durations, etc.

Motor insurance coverage

1. All motor vehicles, including government vehicles should be insured against damage to others.
2. Short-term policies should be discouraged with refunds offered instead to those who can show they are no longer the owner/driver of the vehicle.
3. Motor insurance coverage should be checked as part of the vehicle inspection, registration and road tax payment procedures.
4. The number charged for driving while uninsured should be monitored by the police and reported regularly.
5. Insurance regulator and insurance association should agree on a common database (minimum data set) for all motor insurance companies to use.

Road victim compensation and rehabilitation

1. Hospitals should be surveyed to see if road casualties are ever refused treatment for lack of ability to pay. Compensation systems should address the findings.
2. Information should be provided to both policy holders and road collision casualties on their compensation rights and procedures. This information should be distributed through insurance companies, police and hospitals.
3. Funeral expenses and interim payments to be made available for immediate needs.
4. Governments should set a time limit for a claim offer to be made (ex. 6 months), save for extenuating circumstances requiring approval from the insurance regulatory body.
5. Any solicitors' fees should be settled by the insurance companies, and not involve payment from the victim's family. This should also be explained to the family.
6. In crashes involving pedestrians or cyclists, the motor vehicle driver should be presumed to be at fault with the onus on him/her to prove otherwise.
7. All countries should ensure a fund is available for victims of crashes involving hit and run drivers or uninsured vehicles.
8. Insurance industry should develop compensation guidelines in conjunction with the Ministry of Health (or Medical Association) as well as training courses in disability assessment.
9. Court awards should be registered and an annual record be published and disseminated among judges, insurers, solicitors and transport associations.
10. Doctors should be trained and approved for medical claim assessments to promote fairness and consistency of disability diagnosis.
11. Insurance claims should be monitored by an independent organisation, possibly the insurance regulatory body, i.e. duration of settlement, method of settlement, claim award requested and received, solicitor's fees, satisfaction with compensation, etc.
12. Road traffic victims, perhaps through the Red Cross or Social Security Department, should be represented on any motor insurance working group, if not the insurance regulatory body.

Road safety funding and sponsorship

1. Road safety advisory body should organise a training workshop for insurance officials to increase their awareness of which measures are believed to be the most effective and practical.
2. Along with other organisations, financial donations should be allowed to be made by motor insurers.
3. Insurance companies should be encouraged to sponsor existing programme or complimentary activity, and not one-off publicity campaigns which are easily forgotten.
4. Insurance companies should agree with implementing organisation the objective and performance indicators of any investment.
5. Insurance industry should coordinate, if not organise, sponsorship activities and keep a list of the various insurance sponsored projects (pro forma).

Research

1. The minimum data set should include such factors as location, road user movements, and vehicle type.
2. Insurance industry should form a partnership with the national safety research institute or engineering university and allow regular access to claim database at a minimum.

Appendix B: Motor Insurance Contact Database

Country	Organisation	Name/Position	phone	fax	email	web
Albania	BSHS Byroja Shqiptare e Sigurimit		355 42 54033		bshs@albaniaonline.net	
Andorra	Oficina Andorrana d'Entitats		376 86 00 17		bureau@andorra.ad	
Argentina	Familiares y Victimas de Accidentes do Transito (FAVAT)	Gregorio Dalbon, President	54 11 4812 4097	54 11 4816 1998	dalbon.g@ba.net	
Argentina	Cesvi		54-322-96362/66	54-322-96010	cesvi@cesvi.com.ar	www.cecvi.com.ar
Australia	NRMA	Robert Mcdonald	61 2 9972 6372	61 2 9972 6379	robert.mcdonald@ibm.net	www.nrma.com.au
Austria	Rotes Dreieck - Initiative Osterreicher Unfallopfer	Rudolf Grunzweig	43 1 544 2052		rudolf.gruenzweig@kfv.or.at	
Austria	Verband der Versicherungsunternehmen	Dietrich Karner, President	43 1 711 560	43 1 711 56 270	versver@ibm.net	www.vvo.at
Belgium	Association des Parentes pour la Protection des Enfants sur la Route (APPER)	Jacques Duhayon, FEVR Country Representative and FEVR Treasurer	32 69 344 518	32 69 344 518	jaques.duhayon@skynet.be	
Belgium	Association des Parentes pour la Protection des Enfants sur la Route (R. Wallonnes)	Rene Constant, FEVR Country Representatives	32 42 642 537	32 42 642 537	rene.constant@skynet.be	
Belgium	Parents d'Enfants victimes de la route (PEVR)	Francis Herbert, Secretary General	32 2 778 2211	32 2 778 2517	Francis.Herbert@allenovey.com	
Belgium	IBSR		02 244 1511	02 216 4342	info:ibsr.be	
Belgium	Bureau Belge des Assureurs Automobiles		32 2 287 18 11	32 2 287 1800	info@bbaa-bbav.be	www.bbaa-bbav.be
Bosnia-Herzegovina	Biro Osiguranja Bosne IHercegovine		387 33 213 674		bihzelka@bih.net.ba	
Brasil	Cesvi Brasil/SA		5511 3941 0669	5511 3941 2348	cesvicbrasil@cesvibrasil.com.br	www.cesvibrasil.br

Brown card	Brown Card		228 22 39 55	228 21 49 64	brown-card@ecowasmail.net	based in Togo
Bulgaria	Bulstrad Insurance and Reinsurance plc		359 2 9856 6400		headgreencard@bulstrad.bg	www.bulstrad.bg
Canada	I Promise Program	Gary Direnfield, Executive Director	905 628 4847	905 627 0802	gary123@sympatico.ca	www.ipromiseprogram.com
Canada	ICBC	Mavis Johnson			mavisjohnson@icbc.com	
Canada	ICBC	Barry Burch, Manager Road Safety	604 661 6265	604-646-7555	barry.burch@icbc.com	
Canada	VICC	H Norup	1 416 445 1883	1 416 445 2183	hhorup@vicc.com	www.vicc.com
Colombia	Cesvi Colombia		571 091 8772013	571 091 8772032	cesvicol@andinet.com	www.cesvicolombia.com
Croatia	Hrvatski Ured Za Osigurange		385 1 4616755	385 1 46 16 757	huo@huo.hr	www.huo.hr
Cyprus	Motor Insurers' Fund	Mr. Andreas Th. Charalambides, Manager	357 2 763 913		mif@cytanet.com.cy	www.mif.org.cy
Denmark	The National Societ of Polio and Accident Victims in Denmark	K Ole Frickmann, Managing Director	45 39 62 90 00	45 39 625439	KOF@PTU.Dk	www.ckp.cz/
Denmark	Dansk Forening for International Motorkoretojsforsikring	Bjorn Iversen, Under Director	45 33 43 55 00		dfimadm@forsikringenshus.dk	www.forsikringenshus.dk
Estonia	Eesti Liikluskindlustuse Fond		372 626 4602		lkf@lkf.ee	www.lkf.ee
Finland	Federation of Finnish Insurance Companies	Timo Suutari, Information Specialist	358 9 6804 0252	358 9 6804 0277	timo.suutari@vakes.fi	
Finland	Liikennevakuutuskeskus		358 9 680 401		lvk@vakes.fi	
France	Fondation Anne Cellier contre l'insecurite routiere	Christiane Cellier, President	33 1 45009535	33 1 45005818	fond_ac@club-internet.fr	www.fondation-annecellier.org
France	Ligue contre la Violence Routiere	Philippe Laville, President	33 1 6944879	33 1 6944879	lcvr.paris@wanadoo.fr	www.perso.wanadoo.fr/lcvr
France	Bureau Central Français		33 1 53 32 24 51		dauphin@bcf.asso.fr	

F.Y.R.O.M.	National Insurance Bureau		389 213 61 72		nib@unet.com.mk	
Germany	Deutche Interssengemeinschaft fur Verkehrsunfallopfer (dignitas)	A Oidtmann, President	49 2162 20032	49 2162 352312	dignitasv@aol.com	members.aol.com/dignitas/index/htm
Germany	Deutsches Buro Grune Karte E.V.		49 40 33 44 00	49 40 33 44 07040	jdbgk@gruene-karte.de	www.gruene-karte.de/
Germany	AZT	Dieter Anselm	49 89 3800 6311	49 89 3800 6336	dieter.anselm@allianz.de	www.allianz-azt.de
Greece	Hellenic Assocation for Road Traffic Victim Support	Dr VC. Theodorou MD, President	30 1 77 80 295	30 1 7752550	cut@otenet.gr	www.enternet.gr/efitha
Greece	Motor Insurers' Bureau -~Greece		30 10 32 23 324		greekmib@hol.gr	
Holland	Vereniging Verkeersslachtoffers	Dr Hans van Maanen, Representative	31 35 621 51 10	31 35 621 51 10	H.R.E.vanMaanen@siep.shell.com	
Hungary	Hungarian Motor Insurance Bureau		36 1 266 1928	(1)337-5394	secretariat@hunmib.mabisz.hu	www.mabisz.hu
Iceland	Alpjódlegar Bifreidatryggingar á Islandi		354 568 1612		sit@sit.is	
Iran (Islamic Rep. of)	Bimeh Markazi Iran -Green Card Bureau of Iran		98 21 2050001-5		g-card@cent.ir.com	
Ireland	Irish Insurance Federation	Ciara Whooley			Ciara.whooley@iif.ie	
Israel	Road Victim Association	Ben Zion Kryger, Chief Scientist	972 3 6994993	972 3 699 7990	kryger@post.tau.ae.il	
Italy	StradaAmica, Associazone Italiana per la Tutela della Vita sulle Strade	Dott. Maria Distefano, President	39 095 7463381	39 095 7464445	stradamica.ct@iol.it	
Italy	StradaAmica, Associazone per la Sicurezza degli Utenti Deboli della strada	Dott. Flavio Frera, Representative	39 030 360 6 28	39 030 361 456	freraf@tin.it	www.spce.tin.it/scuola/ffrera
Italy	Associazione italiana famiari e vittime della strada - onlus	Francesco Saladini, National Coordinator	39 06 417 34624	33 06 41468434	f.saladini@libero.it	www.vittimestrada.org
Italy	Ufficio Centrale Italiano (U.C.I.)		39 02 34 96 81		ucisrl@iol.it	www.ucimi.it

Korea	KART(Korea Automobile Insurance Repair and Training Centre)		82 31 642 1100	82 31 642 8501	kart@kidmail.kidi.co.kr	www.kidi.co.kr
Latvia	LR Satiksmes Birojs		371 724 1822		sb@sb.gov.lv	
Luxembourg	Association nationale des Victimes de la Route (AVR)	Jeannot Mersch, President	352 879 043	352 878 703	merchj@pt.lu	www.avr.lu
Luxembourg	Bureau Luxembourgeois des Assureurs		352 457 304		bureaulu@pt.lu	
Malta	Malta Green Card Bureau		356 21 238 253		bureaux@maltanet.net	
Mexico	Cesvi Mexico	A Martinez	52 72 79 36 04	52 72 79 02 24	amartinez@cesvimexico.com.mx	www.cesvimexico.com.mx
Moldova	ARCA National Agency of Insurers		373 2 221 970		motor@arca.mldnet.com	
Norway	Trafikkforsikringsforeningen		47 22 04 86 00	22 56 21 16	post@tff.no	www.tff.no
New Zealand	ACC	Bill Robertson/ Jeff Cabral	64 4 918 4109 64 4 918 7554	64 4 918 7443 64 4 918 7351	RobertsB@acc.co.nz	
Poland	Polish Motor Insurance Bureau		48 22 847 90 20		pbuk@pbuk.com.pl	
Romania	Association des victimes de la route	Ioachim Galavan, President	0400 092552790		asvictimelor_auto@hotmail.com	
Romania	BAAR - Biroul Asiguratorilor de Autovehicule din Romania		40 1 211 92 08		brcv@pcnet.ro	
Slovakia	Slovenska Poistovna AS		421 7 54415628		Fekei@dr.spas.sk	www.spas.sk
Slovenia	KASKO posredovanje zavarovanj d.o.o.	Sagaj Branko	386 41 716567	386 2 583 1233	kasko@siol.net	www.tradepoint.si/zavarovalnice/siab2000/simember.asp
Slovenia	Slovensko Zavarovalno Zdruzenje, GIZ		386 1 4377 098		greencard@zav-zdruzenje.si	www.zav-zdruzenje.si
South Africa	Wescol	Cary, Commercial Manager	27 11 886 9530	27 11 886 9420	ary@weascol.co.za	www.wescol.co.za
South Africa	Horak Insurance Brokers	A J Horak	011 435 0200/1	011435 0224	horak@global.co.za	www.horak.co.za/contact.html
South Africa	Drive-Alive	Moira Winslow, President	27 11 788 97 89	27 11 442 5137	safety@drivealive.org.za	

Spain	PAT Prevention d'Accidents de Traffic	Anee-Lise Cloetta, Representative	34 93 636 0321	34 93 4870172	a-cloetta@mixmail.com	
Spain	Asociacion Ayuda Afectados por Accidentes de Trafico	Ana Maria Campo de la Crux			jpicard@wanadoo.es	
Spain	Oficina Española de Aseguradores de Automoviles		34 91 446 0300	34 91 594 09 65	cartaverde@ofesauto.es	www.ofesauto.es
Spain	Centro Zaragoza				j.carcas@centro-zaragoza.com	www.centro-zaragoza.com
Spain	Cesvimap	Jorge Gonzalez Techn Director	34 920 206 315	34 920 206 323	jfgonzalez@cesvimap.com	www.cesvimap.com
Sweden	Trafikforsakringsforeningen	Ulf Blomgren, Managing Director	46 8 783 70 00	46 661 09 56	admin@tff.se	www.tff.se
Sweden	Folksam Insurance Company	Tor Mellbye, General Manager	46 8 772 6900	46 8 714 7611	e-mail@folksam-inter.com	www.folksam.se
Sweden	Foeringen SMART	Anette Lindholm	46 8 555 76573		anette.smart@telia.com	
Sweden	Trygg-Hansa				kundservice@trygghansa.se	
Sweden	Lansforsakringar	Kurt Olof Svensson	46 8 6901000	46 8 670 4806	kurt-olof.svensson@lansforakringar.se	www.lansforsakringar.se
Switzerland	Association des Familles des Victimes de la Route (AFVR)	Prof Dr Marcel Haegi, FEVR President	41 22 776 9747	41 22 776 7413	mheagi@pelagus.it	www.fevr.org.afvr/html
Switzerland	Swiss National Bureau of Insurance		41 1 628 8930		nbingf@zurich.ch	
The Netherlands	Nederlands Bureau derMotorrijtuigverzekeraars		31 70 3408 280		h.duurkoop@nlbureau.nl	
Turkey	Red Light Accident Research and Prevention Society	Anne Kurt, Representative	90 212 292 5486	90 212 292 5586	annkurt@hotmail.com	
Turkey	Turkiye Motorlu Tasit Burosu		90 212 217 5968		turkmotorlutasit@superonline.com	
UK	Association of British Insurers	Jo Dagustan Manager Motors	44 020 7216 7504	44 020 7696 8995	jodagustan@abi.org.uk	
UK	Campaign Against Drinking and Driving (CADD)	Jane Evason, Secretary	01235 277261	01235 277262	Jane@caddhq.freeserve.co.uk	www.cadd.org.uk

UK	DirectLIne	Dominic Burch, Road Safety Mgt	0208 256 2182	0208 686 9536	Dominic.burch@directline.com	www.directline.com
UK	Motor Insurance Bureau	Doug Yabsley, Claims Manager	01908240000	01908832187	secs@mib.org.uk	
UK	RCAR				Rcar.org	www.rcar.org
UK	RoadPeace	Zoe Stow, Chairman	0208 964 1021	0208 8385 103	info@roadpeace.org.uk	www.roadpeace.org.uk
UK	Thatcham	Peter Roberts Chief Executive	44 1635 294820	44 1635 294839	peterr@thatcham.org	www.thatcham.org
Ukraine	Motor (Transport) Insurance Bureau		38 044 239 2030		mtibu@gu.kiev.ua	
USA	IIHS	Brian O'Neill, Director	1 703 247 1500	1 703 247 1678	boneil@iihs.org	www.hysafety.org
USA	StateFarm	Charles A Sollars	1 309 766 3663	1 309 766 3662	charles.a.sollars.bn2z@statefarm.com	www.statefarm.com
USA	Tech-Cor	J Ribbens	1 847 4192300	1 847 215 1441	jribbens@allstate.com	www.tech-cor.com
Yugoslavia	Udruzenje Osiguravajucih		381 11750 359		exsec@udruzenje.co.yu	
Zambia	Nicoz (Z) Ltd			260 1 222863	nicozam@zammnet.zm	
Zimbabwe	Orion Insurance Co Ltd		263 4 708479	263 4 705236	orion@lcz.co.zw	www.orion.co.zw/contact.htm

Appendix C: Motor insurance local survey

A. General/Background

When was motor insurance made mandatory and what are current requirements?

Which ministry/department supervises the insurance industry? What information is required to be provided to the regulatory body?

How is the industry structure, i.e. how many private sector companies and how large is the public sector share? Do government vehicles have to be insured?

Summarise the motor insurance related (inc. road safety) activities of the local Insurance Association, is there a motor committee?

Is the Insurance Industry represented on any national road safety policy making body?

B. Insurance Coverage

How many vehicles are insured (if available, provide by vehicle type and insurance type, i.e. third party or comprehensive)

How many total vehicles (by type) are currently operating (provide registered vehicles if necessary) What is the estimated rate of non compliance?

How is motor insurance coverage promoted? Is there a windscreen sticker or decal to show proof of insurance coverage?

What is the penalty for not having motor insurance? How do the police enforce insurance requirements? Do they ever conduct any campaigns?

C. Compensation

What are the current legal requirements for compensating a) death, b) injury.

What is the maximum compensation for property damage?

Is there a Motor Insurance Board (or equivalent) which compensates victims of hit and run collisions? If so, how is it funded and what level of compensation does it provide?

In collisions with pedestrians and cyclists, is liability assumed on the part of the motorist or does fault have to be proven?

Is compensation reduced if victim contributed to the collision?

What is the time limit for laying a claim? Does the crash have to be reported to the police?

Are there any time restrictions on when an insurance company must make a claim offer? Are there any financial penalties for making an unrealistically low claim offer?

Are funeral costs paid by insurance companies? If so, when?

How is the fairness of claim offers monitored? Is there a complaints system?

Do road victims have to pay solicitors or is this done by insurance companies?

What information is given to drivers and/or victims about the compensation process and their legal rights and responsibilities?

What more could be done to promote fair and timely compensation to road traffic victims?

D. Pricing

Who sets premium tariffs? What is the role of the insurance companies/association?

What is average third party premium for a private car?

Is motor insurance vehicle or driver based, i.e. does the premium vary by the age or experience of the driver, or his/her previous driving record?

Will the insurance coverage be cancelled if the driver is convicted of driving under the influence of alcohol? What about speeding?

What kind of No Claims Discount is offered (including initial and maximum amount)

Is there an excess imposed after a claim?

Will the third party premium be increased after a speeding conviction or a drink driving conviction?

How else could insurers encourage safe driving and penalise risky driving?

E. Funding

Is there a levy added to insurance premiums to finance road safety activities? If so, how much?

Is there a levy added to finance compensation for victims of hit and run collisions? If so, how much?

Has an insurance levy ever been considered as a way of financing road safety?

F. Sponsorship

What kind of voluntary sponsorship of road safety activities have the insurance companies undertaken in recent years? Was this done under the Insurance Association or by individual companies?

How have the effectiveness/success of previous investments been evaluated?

Has the insurance industry invested in any training of doctors to promote fair and consistent disability claims.

G. Research

Have any insurance companies sponsored or provided data for any road safety research in recent years? If so, what was the research subject?

Is claim data computerised and available for road safety research?