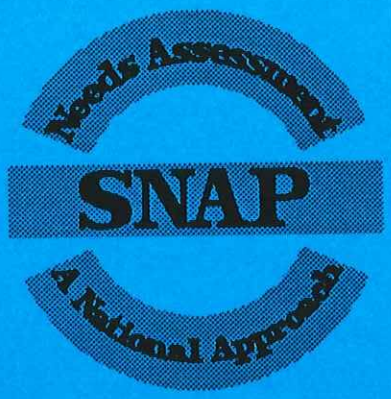
Scottish Needs Assessment Programme



Road Traffic Accidents in Scotland

SCOTTISH FORUM FOR PUBLIC HEALTH MEDICINE

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Scottish Needs Assessment Programme

Health Promotion Review: Accident Prevention

Road Traffic Accidents in Scotland

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January 1995

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Introductory Note

This Health Promotion Review is one of a series of five being published simultaneously. The others are:

- Home Accidents in Scotland
- Leisure and Water Accidents in Scotland
- School Accidents in Scotland
- Workplace Accidents in Scotland

SNAP Reports currently available

Total Elective Hip and Knee Replacement - a comparative assessment
Cataract Surgery
Congenital Dislocation of the Hip
Global Needs Assessment - a screening tool for determining priorities
Increasing Choice in Maternity Care in Scotland - Issues for Purchasers and Providers
Breastfeeding in Scotland
Improving Gynaecological Services Within Existing Resources - A Programme Budgeting and Marginal Analysis Approach
Cancer Care in Glasgow - A Model for Regional Cancer Care in Scotland
Inpatient Resources for Communicable Disease in Scotland
Dental Caries in Children
Oral Cancer
Addictions - Overview and Summary
- Alcohol Misuse
- Tobacco
- Problem Drug Use

Acute Stroke
Teenage Pregnancy in Scotland
Mental Health - Overview and Programme

SNAP Reports due to be published shortly

Cardiac Disease
Hernia Repair

Copies of all SNAP Reports are available from Ms Jackie Gregan, Scottish Needs Assessment Programme, 69 Oakfield Avenue, Glasgow G12 8QQ.

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ACCIDENTS IN SCOTLAND - GENERAL

STATEMENT OF THE PROBLEM

Mortality

Deaths resulting from accidents account for a substantial proportion of all deaths and are the fourth largest single cause of death in Scotland. In the 1980s deaths from accidents showed a downward trend but this has now levelled off.

Although death rates due to accidents increase with age, much of the impact on years of life lost is due to deaths among children and young adults, especially young men. Accidents are the third largest single cause of years of life lost, calculated as years of life lost before the age of 75 years.

Morbidity

Figures on the morbidity caused by accidents is limited. Information on community morbidity is not collected nationally. There may be information collected by individual practices or health visitors but this is not yet in a systematised form. Accident and emergency department information is limited by the proportion of attendances not coded completely. Information collected in the hospital service concentrates on the injury rather than on the place of injury or how it was caused and is, therefore, not complete.

Need for a common data set

Information on the number of accidents and types of accidents are collected by many agencies but as yet there is no common data set of information agreed by the various agencies and limited use can, therefore, be made of these data.

RISK FACTORS

The risk factors and their amenability to intervention depends very much on the setting in which the potential accident takes place. However, it is widely recognised now that in order to reduce injury and death from accidents it is necessary to reduce the number of accidents as well as to reduce the adverse effects of the accident.

EFFECTIVENESS AND COST-EFFECTIVENESS OF INTERVENTION

There is limited published information about the effectiveness and cost-effectiveness of interventions to both reduce the number of accidents and also to reduce the adverse effects of an accident. Much more research is required in this area. However, in summary, the value of health education initiatives alone is questionable. When coupled with structural or environmental changes, there can be an improvement in the outcome.

COSTS TO THE NHS OF ACCIDENTS

The cost of accidents is very difficult to estimate and therefore these estimates, in most cases, have been limited to the costs of the Health Service. These are meant to indicate the likely scale of the problem in Scotland.

School accidents	Hospital costs	£1 million per year
Workplace	Medical care costs	£5-22 million per year
(NHS as a workplace)	(Total costs)	(£85 million per year)
Road accidents	Total costs	£608 million per year
Leisure and water accidents	Hospital costs	£15-27 million per year
Home accidents	Hospital costs	£8-13 million per year

OVERALL RECOMMENDATIONS

At national level

- Information systems between the various organisations should agree on a minimum data set of information to allow for better analyses of the statistics to inform an action plan

- A joint strategy for accident prevention by setting should be drawn up in conjunction with all agencies involved.

At local level

- Purchasers should encourage Healthy Alliances to examine accidents locally and produce an action plan.

- Purchasers should require improved completeness and accuracy of statistics.

- A pilot scheme to evaluate the costs and effectiveness of community health service staff and domiciliary social work staff (such as home helps) undertaking a safety audit with advice within the homes of young people and the elderly should be undertaken.

- Various initiatives to reduce injuries from road accidents should be promoted including encouragement of the use of public transport, separation of pedestrians and cyclists from traffic, automatic speed cameras, especially in dangerous areas, the use of cycle helmets, infant car seats and rear seat belts, advanced driver training, especially by employers for their staff who drive, and sensible alcohol consumption

- The NHS should implement the SCOTMEG recommendations and monitor these through the contracting mechanism.

- Health Promotion initiatives with employers should include accident prevention.

- Schools should be encouraged to review regularly their information on accidents to identify risks and design an action plan incorporating the findings.

- All leisure and sports centres and clubs should collect and analyse data on accidents to identify risks and design an action plan to reduce these risks.

ROAD TRAFFIC ACCIDENTS - EXECUTIVE SUMMARY

- Between 1988-92 there were 2667 fatal vehicle accidents in Scotland. Current trends show a decrease in the number of deaths on the road, despite an increase in volume of traffic
- The total cost of road injuries in Scotland in 1991 was estimated at £608 million.
- The majority of fatalities involve vehicle drivers or occupants (58.6%). Pedestrians account for 32.7%, motor cyclists for 6.4% and pedal cyclists for 2.3%. The average individual dying in a road traffic crash is 40 years old, losing 35 potential years of life.
- Public transport is far safer than private transport; motor cycling is particularly dangerous.
- High speed directly accounts for 10-20% of injuries and approximately 20% of road transport deaths are attributable to alcohol consumption.
- The introduction of random breath testing seems to be the main strategy that is likely to reduce the impact of drink driving.
- On an international comparison the overall Scottish road death rate is just above average. However, Scotland's pedestrian road death rate per 10 000 vehicles is fifth worst out of 23 countries. When compared with the rest of the United Kingdom the death rate for car users in Scotland is two thirds higher than that in England and Wales in 1990; the rate of fatal and serious injuries to children in Scotland is nearly 50% greater than in England and Wales.
- Education about and promotion of safety devices, such as rear seatbelts and cycle helmets, should be increased as evidence suggests that such equipment can lead to significant reductions in injury rates.
- The target for road injuries in Scotland is a reduction in the number of casualties by one third by the year 2000.

RECOMMENDATIONS

The following priorities for action in connection with reducing road traffic accidents can be identified:

1 Promote public transport and separation of pedestrian and cyclists from traffic.

2 Promote automatic speed cameras.

3 Introduce random breath testing.

4 Promote measures that protect two wheel vehicles, ie right turn prevention, right turn bays and central road dividers.

5 Promote use of cycle helmets, infant car seats and rear seat belts.

6 Promote advanced driver training.

7 Promote sensible alcohol consumption.

8 Examine the potential of using Accident and Emergency Department data to improve levels of reporting of bicycle and pedestrian injuries.

9 Establish and maintain close links between local Roads Departments, Police and Health Boards.

10 Research is required to identify districts with road traffic accident rates significantly different from those predicted by socio-demographic variables. This should be followed by in-depth studies of these areas.

Purchasing Issues for Health Boards

Many of the actions necessary to reduce road traffic accidents are outwith the scope of Health Boards and their role is limited to one of lobbying other organisations. Nonetheless several initiatives are possible and should be considered.

Accident and Emergency Department data

If there is significant under reporting of bicycle and pedestrian injuries, this may be used to supplement police statistics. It is probable that the SCOTMEG/CRAG groups on Accident and Emergency Services will recommend that Health Boards purchase sophisticated computer systems for Accident and Emergency Departments. This will permit capture of appropriate data. Costs and benefits are unclear.

Staff Travel

Health Boards and providers could encourage staff to switch from cars to public transport for long journeys and to switch to bicycles for short ones - under 3 miles. Both changes would improve the health of staff and be an appropriate action for an exemplar employer. This could be achieved by:

- offering car mileage rates for journeys by bicycle of less than 3 miles. The only cost would be a 5-10 minute increase in journey time.

- ensuring that car leasing schemes/mileage payments do not discourage staff from travelling by public transport where appropriate. Costs are unclear and benefits may be significant if staff work on the train.

- subsidise employees with high work related mileage to take an advanced driver training course. On the assumption that the employer paid £45 to cover exam fees and initial membership of the Institute of Advanced Motorists for employees doing 10 000 miles per year - then it would cost approximately £30 000 to prevent one death and 13 hospital admissions. This would seem a reasonable price to avoid a work related injury.

1 STATEMENT OF THE PROBLEM

1.1 Definition of Road Traffic Accident

An accident resulting in personal injury occurring on a road/footway in which a vehicle is involved. (The vehicle need not be moving.)

1.2 Sources of information

Statistics used by the Regional Council Roads Department will differ from those used by health boards. The former include all injuries occurring within a given area, the latter comprise injuries to health board residents irrespective of where the accident occurred and include non-UK residents coded to the area in which they were injured/died.

1.3 Epidemiology of Road Traffic Injuries

1.3.1 Mortality

In the five year period between 1988-92 there was a total of 2667 fatal vehicle accidents in Scotland. Figure 1 shows the standardised mortality ratios for all Health Boards. Original data is shown in Appendix 1.

Among males the highest death rates are in the 15-34 and 65+ age groups. Death rates among females are lower than for males at all ages. The highest mortality rates among females are in the 65+ age group.

1.3.2 Population Density

Health Boards in rural areas would appear to have higher SMRs than urban ones. In part this reflects increased travelling by residents of rural areas, and delays in receiving emergency medical care after crashes. There was a 52% correlation between the log of population density and motor vehicle death rates. Seven Local Government Districts had SMRs for motor vehicle accidents which were significantly higher than predicted.

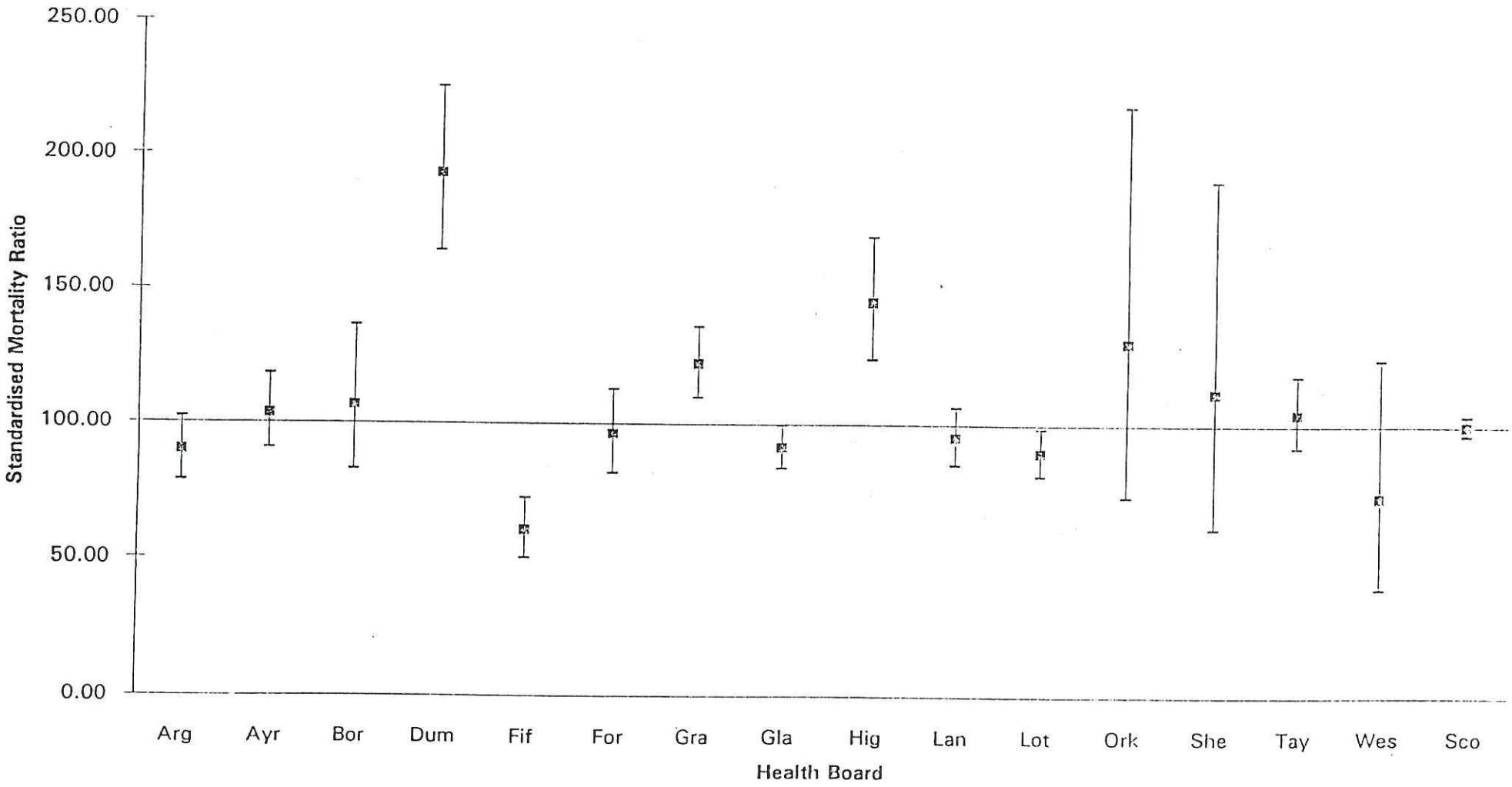
Table 1
Local Government districts in Scotland with higher than predicted mortality

District	Predicted	Observed	95% CI
Banff & Buchan	128.9	189.5	150.9-234.9
Clackmannan	94.3	140.2	97.1-195.9
Edinburgh City	60.2	81.2	70.1- 93.7
Glasgow City	45.7	91.0	81.5-101.4
Hamilton	74.7	102.4	77.1-133.2
Lochaber	178.8	279.6	184.2-406.7
Stewartry	156.2	243.1	164.0-347.0

(Source: Ad hoc analysis of data)

Figure 1

SMRs and 95% Confidence Intervals for Fatal Vehicle Accidents (all modes) by Health Board 1988-1992



1.3.3 Mode of Transport

Between 1988-1992 the majority of people killed in road crashes were vehicle drivers or occupants (58.6%). Pedestrians accounted for 32.7%, motor cyclists for 6.4%, and pedal cyclists for 2.3%.

1.3.4 Trends

Despite an increase in volume of traffic the incidence rates for both deaths and hospital admissions from road traffic accidents declined between 1980 and 1991 by 31% and 29% respectively. This is largely the result of:

Legislative action Drink driving laws, compulsory front and rear seat belt wearing, restrictions for licencing learner motorcyclists, MOT testing etc.

Engineering Road design and modification, improved vehicle design.

Education On drink driving, speeding, and visibility for cyclists and pedestrians.

1.3.5 International Comparison

When compared with other Western European countries, and Australia, Canada, Japan and the USA (Scottish Office):

- The overall road death rate of 3 per 10 000 vehicles for Scotland was just above the average for the 23 selected countries.
- The death rate for car users in Scotland was 1.5 per 10 000 vehicles, 67% higher than England and Wales in 1990.
- Scotland's pedestrian road death rate of 1.1 per 10 000 vehicles was fifth worst out of the 23 countries.
- The rate of fatal and serious injuries to children in Scotland is nearly 50% greater than England and Wales.

2 PREVENTION OF ROAD TRAFFIC INJURIES

Regional Councils are the lead agency for road safety in their areas. Traditionally they have strong links with the police who collect data on all accidents reported to them. Links with Health Boards are usually much weaker and there is substantial scope for liaison.

2.1 Transport Policy

The table below shows that public transport is far safer than private transport. Motor cycling is a particularly dangerous activity and a switch to other forms of transport should be encouraged. In the meantime, moves to restrict the power of motorcycles, and to introduce age related licences determining how powerful a machine can be ridden would serve to reduce the dangers of young riders on powerful machines.

Pedestrians and cyclists are always likely to be of higher risk than people travelling in cars or public transport. Given the present transport network the current trend to encourage people to cycle or walk for the sake of individual fitness or the environment is likely to lead to an increased number of injuries. However, the risk of injury/death in road traffic accidents for pedestrians and cyclists is outweighed by the effect of regular exercise on cardiovascular and mental health (BMA). Therefore, it is important to encourage walking and cycling and endeavour to separate pedestrians and cyclists from motorised vehicles wherever possible.

Table 2
Risk of death by mode of transport, per billion passenger kilometres, Great Britain 1976-86

Motorcycle	156
Pedestrian	73
Pedal cycle	68
Car	5.9
Sea	1.8
Bus or coach	0.8
Rail	0.3
Air	0.3

(Source: Health on the Move, Public Health Alliance 1991)

In the long-term, public policy will determine the form of transport that people adopt. The provision of accessible and affordable public transport will increase its use. However, this will not automatically reduce the number of injuries. It is conceivable that increased speeds resulting from reduced congestion would lead to more injuries. Although a switch to public transport is an essential part of any fundamental attack on traffic danger, this needs to be combined with vigorous traffic calming measures.

2.2 Road Engineering

The Transport and Road Research Laboratory estimate that high speed directly accounts for 10-20% of injuries (The Nation's Health). A major review on road safety comprising more than 30 separate studies on the effect of speed limits on road accident rates showed with a few exceptions, that raising the speed limit increased the number and severity of casualties, and lowering it resulted in reductions in

casualties (Plowden). Speed limits are more likely to be obeyed if accompanied by supporting messages from the road - road narrowing, rumble strips, speed humps, and rough surfaces. Conversely widening and straightening roads will increase the speed of traffic, irrespective of the official limit.

The urban safety project examined the impact of a range of engineering measures in 4 parts of England. This resulted in an overall reduction in injuries of 13%, slight accidents declining proportionally more than fatal and serious ones. The measures that were particularly successful were those that protected two-wheeled vehicles (such as right turn prevention, right turn bays and central road dividers) (Mackie, Tillman). The use of automatic roadside cameras in New Zealand reduced the average speed of motor vehicles by 10% and the cost of installing the cameras was recovered from fines within the first month. This strategy should be encouraged in Scotland.

Currently decisions regarding priority for road engineering schemes are based on police statistics (STATS 19). However it is recognised that pedal cyclists and to a lesser extent pedestrian injuries are under reported, and it is worth considering gathering data on these injuries from A&E Departments (Tunbridge).

2.3 Safety Devices

2.3.1 Seat belts

Extensive public debate followed by legislation in 1983 making it compulsory to wear front seat belts (if fitted) led to a significant reduction in injury rates. There was less public discussion prior to legislation on rear seat belt wearing and usage rates are significantly lower (Downing). Education and enforcement of the law are required if the use of rear seat belts is to increase.

2.3.2 Infant Restraints

There is evidence that infant restraints decrease the chance of injury, nonetheless infant restraint loan schemes have only reported modest improvements in the number of infants observed correctly restrained in cars (Downing). There is no evidence that this is likely to be a cost-effective form of injury prevention.

2.3.3 Cycle Helmets

There is clear evidence that campaigns can increase the use of cycle helmets (Mickalide) and some evidence that they are likely to reduce the rate of injury. Cycle helmets vary in their ability to protect against injury, the British Kite mark should be regarded as an essential minimum standard. Helmets likely to be most beneficial for children whose sole injury is more likely to be a head injury. (Illingworth) Regional Council Road Safety Departments in most of Scotland offer cycle helmets at significantly lower prices than commercial outlets. This should be publicised more widely than at present. An innovative way of gathering evidence as to the effectiveness of helmets, and also generating publicity is to offer to replace cycle helmets damaged in road traffic accidents. This has proved to be effective in Sheffield (Smith).

2.4 Alcohol

The Transport and Road Research Laboratory estimate that approximately 20% of road transport deaths are attributable to alcohol consumption. (Plowden) The risk of an accident is doubled in a driver with a blood alcohol level of 80 mg%. This is the legal limit for drinking and driving. **By the time the blood alcohol level has risen to 200 mg% the risk of an accident has increased exponentially, to 20**

times that of a driver who has not been drinking. Young drivers and those who drink infrequently are more vulnerable to the effects of alcohol, with the risk rising from levels of about 30 mg%. There is no evidence of an increased risk with blood alcohol levels below 20 mg%, and therefore a total ban on drinking and driving makes little sense (Jacobson).

Drunkeness among pedestrians is a significant factor in pedestrian deaths and injuries. Between 1979 and 1986 the proportion of pedestrians with blood alcohol levels of more than 80mg% varied between 38-61%. There was no downward trend over this period and when blood alcohol levels were compared with those in England and Wales a large proportion of pedestrians killed in Scotland had been drinking heavily. One-third had more than 200mg% of alcohol compared with one-eighth in England and Wales (Scottish Development Department).

A wide range of strategies are required to counter the problems of alcohol misuse. With regard to drink driving, it is generally agreed that the typical drink driver is a middle-aged man who considers his chances of being caught to be extremely low. The introduction of random breath-testing seems to be the only strategy that is likely to reduce the impact of drink driving (public opinion surveys and lifestyle surveys in Grampian and the Western Isles have shown that the majority would be in favour of such a policy).

It has been proposed that restoration of driving licences after a drink driving offence should be conditional on satisfactory attendance at a rehabilitation programme. However there is no evidence that rehabilitation programmes are effective at reducing re-offending rates (Foon, Redman).

2.5 Education

2.5.1 For the Motorist

Individuals who have passed the Institute of Advanced Motorist test have only 30% the risk of dying on the roads when compared with other drivers. Although this is a self-selected group it is reasonable to assume that the training programme does reduce risk by developing defensive driving skills. Whilst it would be sensible for high mileage drivers to be encouraged to undertake training with the Institute of Advanced Motorists or RoSPA there is no evidence as to cost effectiveness.

2.5.2 Motorcyclists

There is some evidence that motorcyclist training may be associated with an increased accident rate (DHSS). This would be plausible if poor riders chose to get trained or training led to over-confidence. There is a difficult balance to strike between ensuring that people who ride motorcycles are trained to a high standard, and ensuring that the way in which such schemes are promoted does not encourage people to take up motorcycling.

2.5.3 Pedal Cyclists

Cycling proficiency schemes succeed in improving cycling skills, however the effect on accidents is marginal. Once again there is a danger that children who have passed the test at the age of 10 will then be considered safe, and allowed to ride on roads. It is important that cycling proficiency schemes explain to children and parents the need to separate children from traffic (Quick, Plowden).

2.5.4 Pedestrians

Educational programmes have principally been aimed at children, however there is very little evidence that they are effective. Children's traffic clubs in parts of England have demonstrated some increase in parents' knowledge, and an improvement in reported behaviour of children. However there is no evidence that there has been a reduction in casualties (Tucker). (Significantly lower road accident rates were reported from Norway when children who joined traffic clubs were compared to those who did not. However, only one-third of the eligible children joined the clubs, and it is unclear whether the difference was due to the clubs or the characteristics of the families who joined them) (Grayson).

3 SOCIO-ECONOMIC COSTS

The Scottish Office have estimated that the total road injury costs in Scotland in 1991 were £608 million. This is based on loss of earnings, costs of health care, and a notional sum for pain and suffering; viz fatal injuries £683 000, serious injuries (ie those requiring hospital admission) £20 700, slight injuries £1400.

Approximately 6500 people are admitted to hospital each year in Scotland as a result of road traffic injuries. Costs incurred by Health Boards may be estimated from the number of beds occupied as a result of road traffic injuries. Between 1988-92 they accounted for an average of 110 beds. (See Table 3 below)

Another measure of cost can be obtained from examining the number of potential years of life lost. Based on a life expectancy of 75 years, the average individual dying in a road traffic crash lost 35 potential years of life.

Table 3
Average number of hospital beds occupied and average number of potential years of life lost per annum as a result of road traffic injuries, 1988-92

Health Board of Residence	average number of beds occupied at any time	potential years of life lost *
Argyll & Clyde	9.0	1223
Ayrshire & Arran	8.0	1391
Borders	2.3	497
Dumfries & Galloway	3.7	1008
Fife	5.7	721
Forth Valley	5.0	901
Grampian	13.5	2291
Greater Glasgow	18.0	2370
Highland	5.4	1131
Lanarkshire	12.4	1854
Lothian	11.2	2128
Orkney	0.5	115
Shetland	0.7	107
Tayside	9.0	1469
Western Isles	0.7	73
Scotland Total	104.2	17 277
Outside Scotland/UK/Other	5.3	1395
Total	109.5	18 672

* Based on life expectancy of 75

(Source: ad hoc analyses performed by ISD from SMR1 and GRO data)

4 TARGETS

The Scottish target for road injuries is the same as for the rest of Great Britain, a reduction in the number of casualties by one-third by the year 2000 measured against the average number over the years 1981-85. Substantial progress has already been made and by 1991 the number of fatal and serious casualties had fallen by 31%. However, the number of slight casualties had risen by 5.3%. **It would be worth adopting a more challenging target for fatal and serious casualties, and striving to meet the existing target for slight casualties.** Therefore, it is proposed that the number of fatal and serious casualties should be reduced by 50% by the year 2000 measured against the 1981-85 average.

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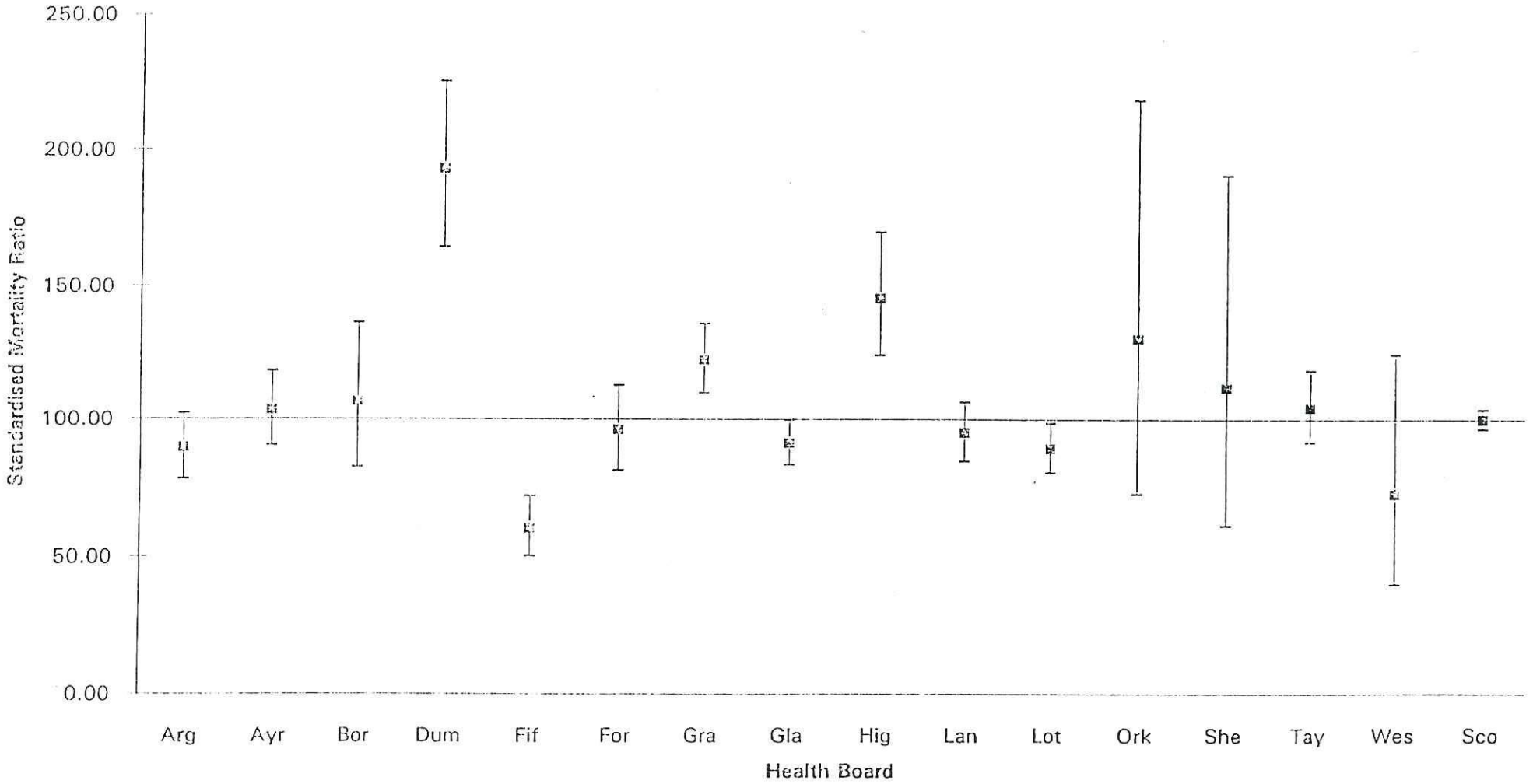
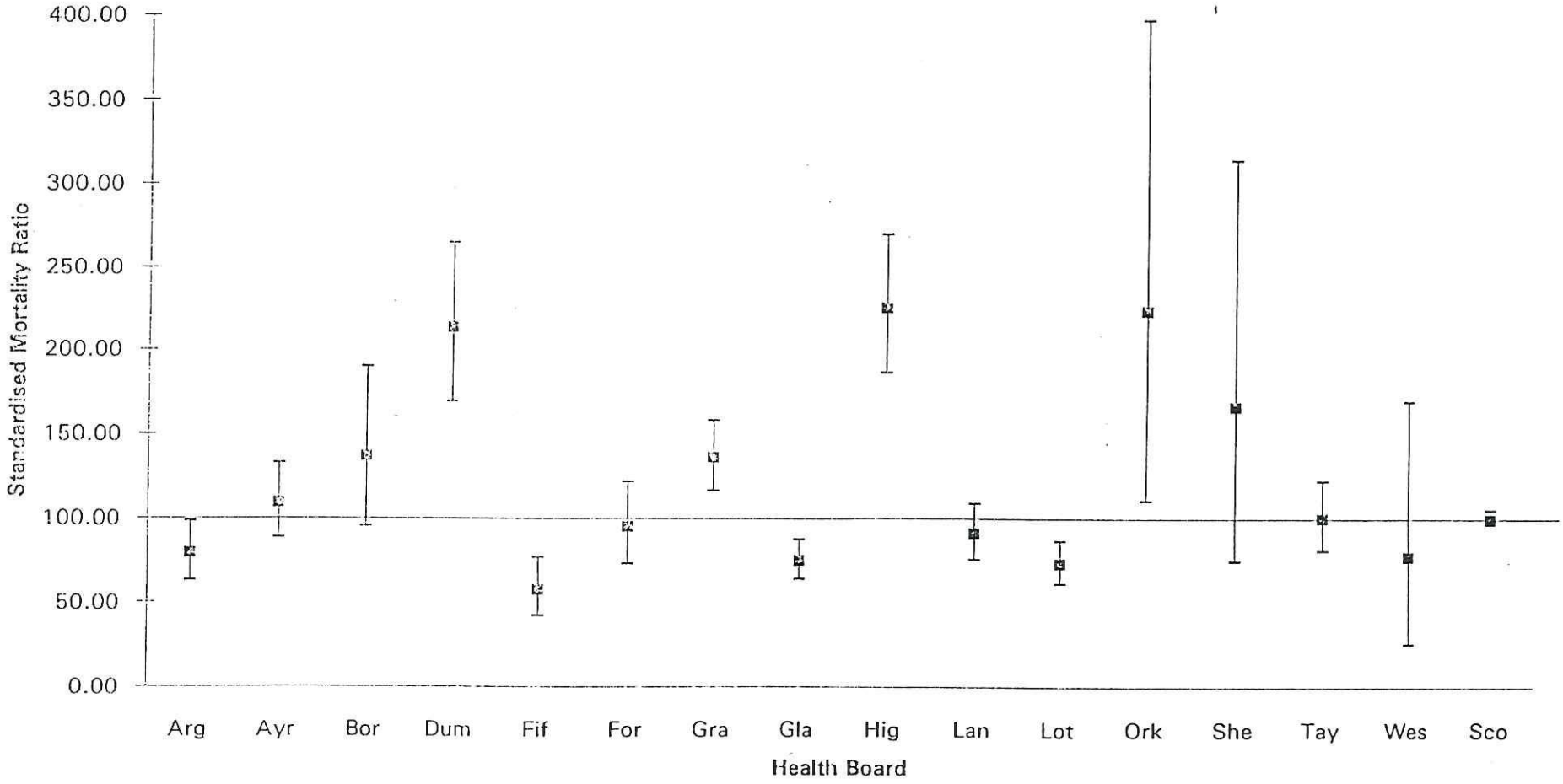
Appendix 1

Tables and Figures

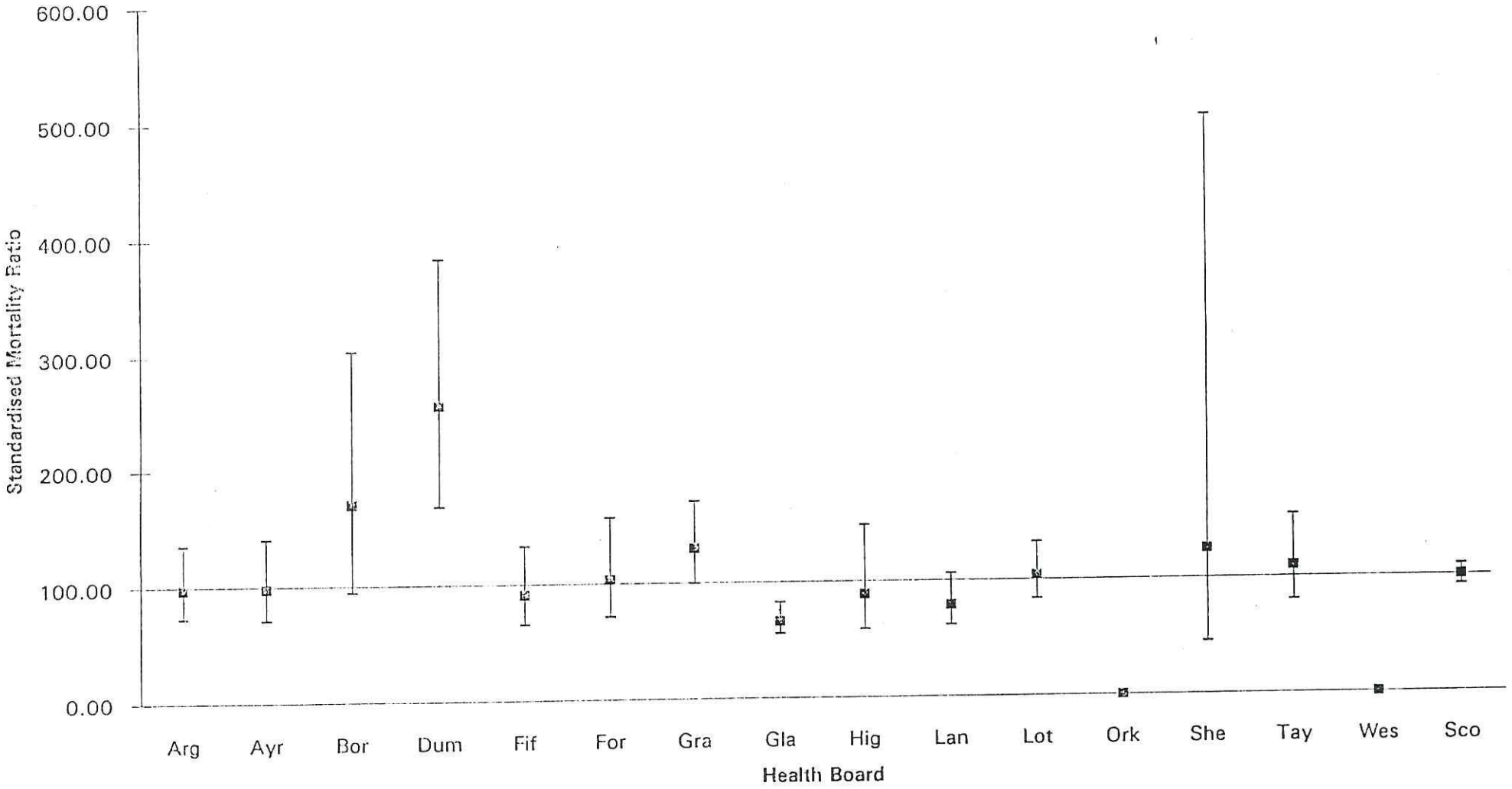
SMRs and 95% Confidence Intervals for Fatal Vehicle Accidents (all modes) by Health Board 1988-1992



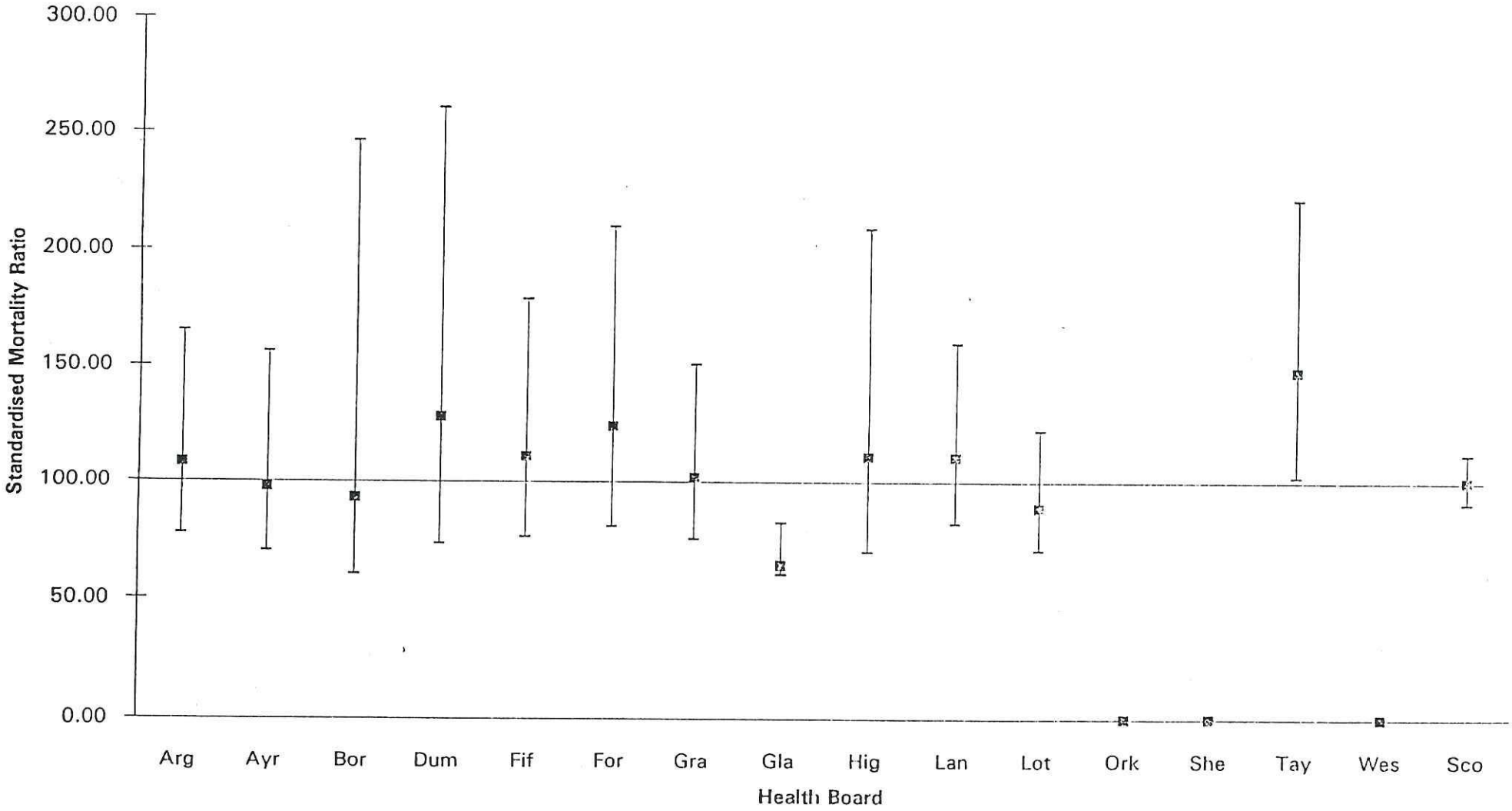
SMRs and 95% Confidence Intervals for Fatal Motor Vehicle Accidents by Health Board 1988-1992



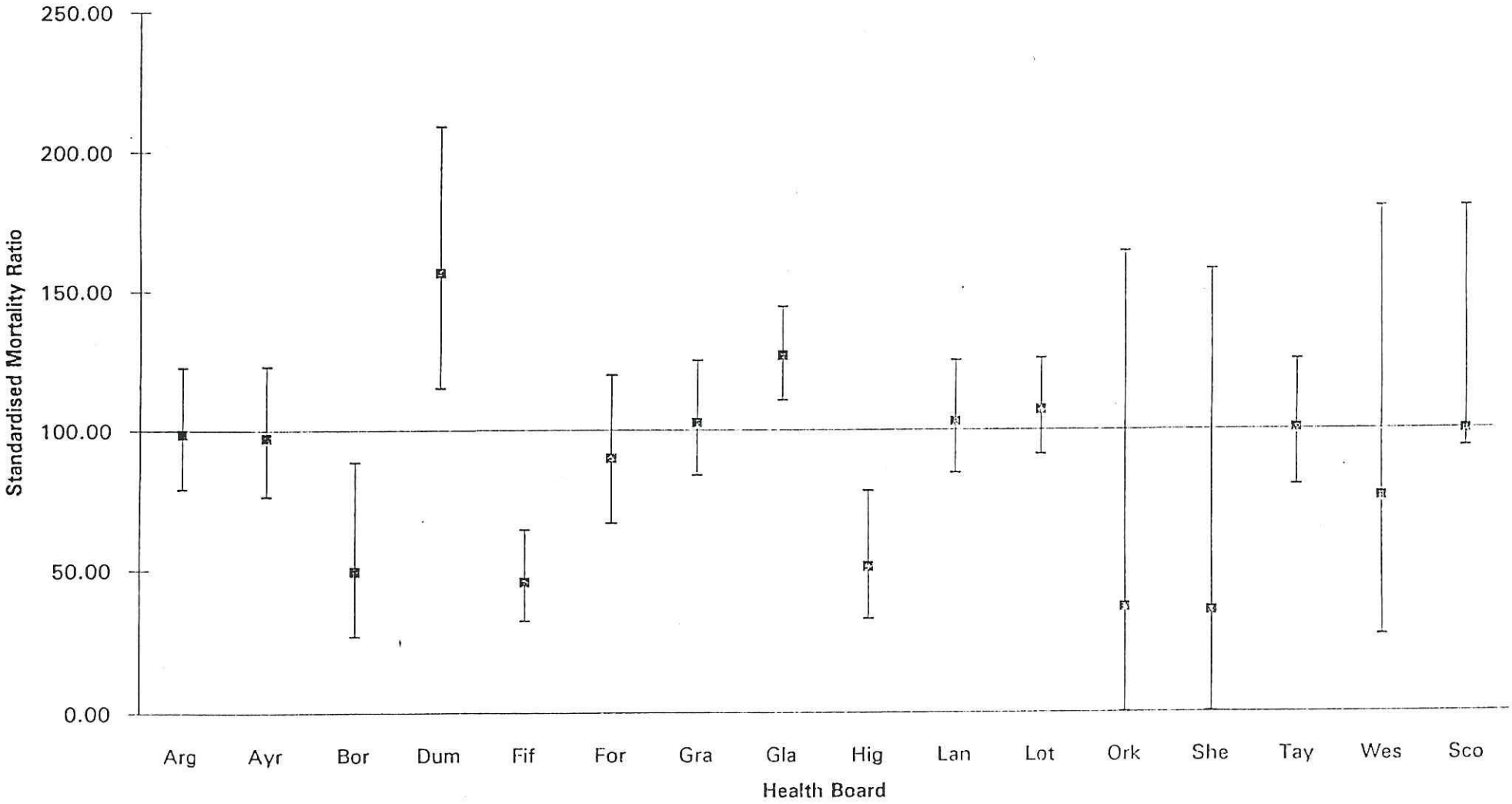
SMRs and 95% Confidence Intervals for Fatal Motorcycle Accidents by Health Board 1988-1992



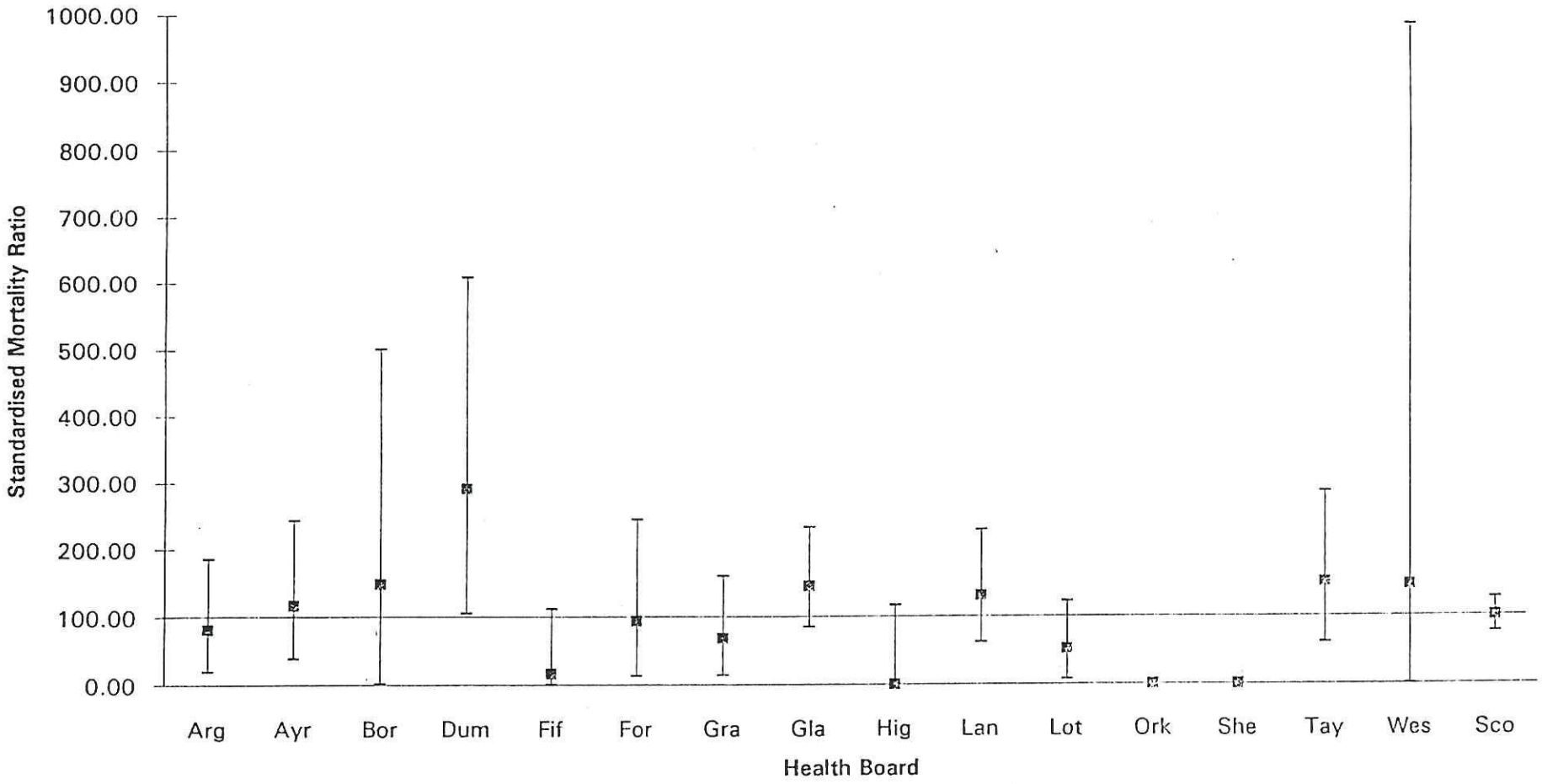
SMRs and 95% Confidence Intervals for Fatal Pedal Cycle Accidents by Health Board 1988-1992



SMRs and 95% Confidence Intervals for Fatal Pedestrian Accidents by Health Board 1988-1992



SMRs and 95% Confidence Intervals for Fatal Accidents for Young (0-14 yrs) Pedestrians by Health Board 1988-1992



Fatal Road Accidents 1988-1992
Number of Deaths, SMRs and 95% Confidence Intervals by Mode of Transport

Fatal Vehicle Accidents

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	188	78.15	89.47	102.09
Ayr	188	90.18	103.42	118.20
Bor	56	82.41	106.73	136.47
Dum	148	164.36	193.08	225.56
Fif	96	50.21	60.27	71.99
For	126	81.20	96.01	112.93
Gra	307	110.03	122.56	136.20
Gla	406	83.17	91.12	99.68
Hig	148	124.22	145.60	169.78
Lan	251	84.46	94.96	106.51
Lot	324	80.40	89.06	98.47
Ork	13	72.71	130.61	218.74
She	12	61.21	112.10	190.89
Tay	203	91.42	104.29	118.60
Wes	11	39.80	72.73	124.74
Sco	2477	96.38	100.00	103.72

Motor Cycles

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	13	72.99	97.59	135.03
Ayr	11	71.53	98.23	140.39
Bor	7	94.66	169.94	303.63
Dum	17	167.46	255.56	382.71
Fif	9	66.00	91.06	132.62
For	9	71.65	103.51	156.35
Gra	25	99.64	129.40	169.66
Gla	11	55.64	66.21	82.91
Hig	5	58.96	88.78	147.68
Lan	11	62.06	79.14	106.13
Lot	26	83.68	104.16	131.69
Ork	0	0.00	0.00	0.00
She	1	45.25	124.76	501.19
Tay	14	80.27	109.55	153.45
Wes	0	0.00	0.00	0.00
Sco	159	91.82	100.00	109.22

Fatal Motor Vehicles

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	101	63.31	79.60	98.51
Ayr	115	88.89	109.41	133.00
Bor	40	95.66	137.24	190.01
Dum	87	169.36	213.50	265.35
Fif	60	42.29	57.97	77.02
For	74	73.12	95.38	121.88
Gra	194	116.85	136.50	158.37
Gla	203	64.24	75.34	87.67
Hig	125	186.64	225.88	270.75
Lan	146	76.19	91.74	109.35
Lot	164	61.68	73.74	87.30
Ork	12	111.02	223.65	398.08
She	10	75.13	166.79	314.87
Tay	113	81.61	100.78	122.85
Wes	7	25.87	77.77	169.94
Sco	1451	99.50	100.00	105.71

Pedal Cycles

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	6	77.41	107.98	164.87
Ayr	4	69.86	97.29	156.07
Bor	1	60.23	92.72	246.51
Dum	3	73.00	127.99	260.84
Fif	5	76.12	110.62	178.78
For	5	80.37	124.06	210.40
Gra	6	75.11	101.58	150.85
Gla	1	60.22	64.05	82.16
Hig	3	69.73	110.67	209.57
Lan	8	81.72	110.56	159.89
Lot	6	70.42	88.56	122.31
Ork	0	0.00	0.00	0.00
She	0	0.00	0.00	0.00
Tay	10	101.92	147.79	221.87
Wes	0	0.00	0.00	0.00
Sco	58	90.42	100.00	111.67

Pedestrians

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	68	78.76	98.62	122.46
Ayr	58	76.12	97.17	122.81
Bor	8	26.72	49.46	88.36
Dum	41	115.05	156.53	209.02
Fif	22	32.26	45.72	64.28
For	38	66.47	89.93	119.88
Gra	82	83.70	102.73	125.20
Gla	191	110.81	126.82	144.66
Hig	15	32.87	51.17	78.22
Lan	86	84.46	103.15	125.13
Lot	128	91.21	107.39	125.86
Ork	1	0.00	36.78	164.62
She	1	0.00	35.63	158.02
Tay	66	80.13	100.76	125.58
Wes	4	26.97	75.91	180.79
Sco	809	93.89	100.00	180.79

Young Pedestrians (0-14 Yrs)

HB	No. Deaths	Low Con Int	SMR	High Con Int
Arg	9	19.72	82.07	185.47
Ayr	10	39.09	117.27	243.57
Bor	3	1.99	148.29	501.70
Dum	8	106.15	291.46	608.48
Fif	3	0.00	16.74	112.29
For	6	13.57	94.63	245.45
Gra	9	13.93	69.30	161.12
Gla	28	85.71	145.30	233.55
Hig	1	0.00	0.00	117.50
Lan	17	62.46	130.54	228.80
Lot	10	7.84	51.66	122.45
Ork	0	0.00	0.00	0.00
She	0	0.00	0.00	0.00
Tay	12	61.65	150.12	287.12
Wes	1	0.00	145.93	987.96
Sco	117	77.33	100.00	126.47