

## MOTORCYCLE RELATED BYSTANDER ASSISTANCE TRAINING

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### ABSTRACT

In January, 2005, a survey was conducted to determine what, if any benefit was being realized from motorcycle crash First Response training.

Though CPR & 1<sup>st</sup> aid skills can be helpful at a crash scene, neither address specific issues related to motorcycle trauma response such as Helmet Removal, Jaw Thrust Rescue Breathing (a technique used to protect the neck in the event breathing must be supported), how to handle the crash scene, how to remove the bike from someone if they were still under it, and how to best move someone to safety if deemed necessary.

Because motorcyclists often travel in groups, this group of roadway users was also unique in the fact that the most likely person to be at the scene of a crash is another motorcyclist.

Though motorcyclists represent a small number of overall motor vehicle crashes it is disturbing to note that they are 26 times more likely to die in a crash than a person in a passenger car<sup>1</sup>. It is estimated that for every fatality, 10 person's survive traumatic events with life long injury related disability.<sup>2</sup>

### INTRODUCTION

The National Agenda for Motorcycle safety (NAMS) was developed in 2003 as a result of National seminars held by the National Highway Traffic Safety Administration (NHTSA) and the Motorcycle Safety Foundation (MSF) to determine how motorcycle safety could be improved. The findings and report can be found at [www.nhtsa.dot.gov](http://www.nhtsa.dot.gov)

One of the items identified as a problem in the NAMS report is First Response. Accident Scene Management, Inc. (ASMI), a 501(c)3 organization was founded in 1996 in order to teach motorcyclists what to do at the scene of a crash until professional help arrives (First Response Training). While there are several other individuals addressing motorcycle trauma in educational settings, ASMI was the only organization that had established a structured program that had been taught to over 5000 motorcyclists as of 12/2004. The program had instructors in 14 states and was growing. ASMI's goal is to have instructors in all 50 of the United States. In April 2005 NHTSA launched a motorcycle specific Bystander Assistance program called "Bystander Care to Aid injured Motorcyclists". According to NHTSA statistics 2001, although motorcycles represent 2.2% of all registered vehicles in the U.S., 7.6% of fatal motor vehicle crashes in the U.S. involved motorcycles. When data was analyzed per vehicle miles traveled, of particular concern was that motorcyclists are 26 times more likely to die in a crash than a person riding in a passenger car and 5 times more likely to be injured.<sup>1</sup> Accident Scene Management, Inc. (ASMI) believes that since motorcyclists often travel in groups, the most likely person to be at the scene of a motorcycle crash is another motorcyclist. For this reason, ASMI has concentrated their training on motorcyclists in a Bystander Assistance Program (BAP) that addresses the first 5-20 minutes after a crash in an attempt to reduce injuries and fatalities in the unfortunate event that a crash occurs.

ASMI believes that the weakest link in the Emergency Medical System's "Chain of Survival" is First Response. Although CPR & First Aid are important skills, they do not address critical aspects of motorcycle trauma. ASMI began teaching "A Crash Course for the Motorcyclist" as a pilot project in the State of Wisconsin in 1997 in order to fill that gap. After a successful two years in Wisconsin, ASMI began to teach in other states with materials organized in a way that they could be taught by other instructors. A few instructors were individually trained over the next two years. By 2002 ASMI's first "instructor conference" was held. To date 43 instructors have been trained.

## MATERIALS AND METHODS

Because of ASMI's pool of motorcyclists who have been trained in Motorcycle related Bystander Assistance, ASMI was chosen by the Motorcycle Safety Foundation (MSF) to conduct a study of how this kind of training has been used and what, if any effects it has had on outcomes. Surveys were sent to 2000 students who had completed BAP training in the years 2002 through 2004.

The goal of data collection was primarily to determine if students had used this information since taking the class. Secondly we were interested in if they felt this information was useful, felt it changed their riding habits (awareness of surroundings), who the majority of students were who were choosing to take the classes and how they heard about the training.

Baseline Data Collection: In January of 2005 surveys were sent to 2,032 students who had completed BAP training in the years 2002-2003-2004. Of those 33 were returned undeliverable making the total of surveys received by participants 1,999. Of these, **846** were completed and returned, a 42.3% return rate (data sample). When numbers below do not add up to 846, that data had been left blank<sup>3</sup>.

### DEMOGRAPHICS

Age vs. Gender

Age	Male	Female	Grand Total
<20	3		3
20-29	3	4	7
30-39	40	42	82
40-49	137	146	283
50-59	215	123	338
60-69	78	33	111
>69	12	1	13
Grand Total	<b>488</b>	<b>349</b>	<b>837</b>

Q. Are you most frequently:  
(cross referenced with gender)

Gender	Rider	Passenger	Neither rider nor passenger	Grand Total
<b>Male</b>	485		2	487
<b>Female</b>	232	117	1	350
Grand Total	<b>717</b>	<b>117</b>	<b>3</b>	<b>837</b>

Q. Which of the following types best describe the motorcycle you ride most frequently?

Q. What is the Brand of Motorcycle you ride most frequently?

Type	Harley	Honda	Yamaha	Kawasaki	BMW	Suzuki	Other	Grand Total
<b>Touring</b>	428	55	10	6	14	4		<b>517</b>
<b>Cruiser</b>	168	25	19	5	3	6		<b>226</b>
<b>Sport</b>	50	4	5	1	2	3		<b>65</b>
<b>Off Road</b>		1						<b>1</b>
<b>(Other)</b>							11	<b>11</b>
Total	<b>657</b>	<b>85</b>	<b>34</b>	<b>12</b>	<b>19</b>	<b>13</b>	<b>11</b>	<b>820</b>

- Q. Check the most recent class you have attended.  
 Q. What state did you take the class in?

State	Basic	Advanced	Refresher	Grand Total
GA	8	6	2	16
NC	3	8		11
SC	12			12
MN	42	23	12	77
IA	21	8	1	30
IL	34	7	1	42
MI	92	47	9	148
WI	223	172	82	477
FL	5	1		6
AK	3	2	1	6
PA	8			8
MO	1	2		3
OH	1			1
Grand Total	453	276	108	837

**Section Summary:** It was clear from these numbers that the majority of people who were trained were middle aged (30-59 y/o), that they were the operators of the motorcycles and that they rode touring and cruiser style motorcycles, particularly Harley Davidson motorcycles. Why the data sample was heavily dominated by Harley Davidsons is not certain. Possible reasons were: Motorcycle group association, word of mouth, ABATE and Wisconsin are heavily Harley Davidson in population, orientation of ASMI founders and H-D users do not have another safety program that includes CPR & First Aid. As ASMI training began taking place in states other than Wisconsin with instructors who were not H-D operators, the elevated interest in the Bystander Assistance program by H-D groups remained constant.

**PROMOTION/USEFULNESS**

- Q. How did you first hear about the Bystander Assistance Program  
 (cross referenced with Type of motorcycle)

Reference	Harley	Honda	Yamaha	Kawasaki	BMW	Suzuki	Grand Total
Friend	90	17	9	2	5	4	127
Organization	407	39	12	5	5	4	472
Article	18	5					23
ASMI	12	2	3	2	1		20
Other	93	18	7	3	4	4	129
Grand Total	620	81	31	12	15	12	771

- Q. Would you recommend that a friend take a Bystander Assistance class?

Participants asked to rate this question on a sliding scale	1=No, not at all	2	4	5	6	7	8	9	10=Yes, Definitely	Grand Total
Total	1	1	2	6	5	18	40	39	731	843

Q. Do you feel this course has been useful to you?

Participants asked to rate this question on a sliding scale	1=Not at all	2	3	4	5	6	7	8	9	10=A great deal	Grand Total
Total	2	1	2	1	11	16	23	79	58	647	840

Q. Do you feel taking the class(es) made you ride with more caution?

1 = Not at all	2	3	4	5	6	7	8	9	10 = A Great Deal	Grand Total
19	6	22	23	45	49	51	111	69	409	804

**Section Summary:** It was clear that belonging to a group or organization was how 2/3 of the students heard about Bystander Assistance classes. Friends were also very influential in promoting the classes. 98% of the students said that they would recommend that a friend take the course with 96% saying that they felt the class was useful to them personally. 78% said that they rode with more caution after receiving training with the majority of them commenting that they felt it increased their awareness of their surroundings.

### THOSE STUDENTS WHO HAD USED THE INFORMATION

Q. Have you used any of the info you learned whether is was in a crash or any other situation requiring bystander assistance since taking the class(es )?

Yes – 242 of 846 surveys (29%)

	1=None at all	2	3	4	5	6	7	8	9	10=A Deal Great	Grand Total
How much info was used?	2	5	11	17	35	32	24	35	5	76	242

Q. Have You been in a crash (or any traumatic incident) since taking the class(es)?

Yes – 39 of 846

	1=None at all	2	3	4	5	6	7	8	10=A Great Deal	Grand Total
Amt of info used in own crash	3	2	3	3	4	2	3	3	16	39

**Section Summary:** The number of people who had used the information they used since taking the class was much larger than anticipated. The majority of them responded to a motorcycle crash and of them, a good share commented that they felt confident of their actions, even if they weren't able to use all of their training. Included in the 242 responses were 39 people who had used the information when in a crash themselves. Text answers were encouraged regarding the type of information used and how it was used. The Text answers were 25 pages long. Those comments along with the full survey results are available on ASMI's website: [www.accidentscene.org](http://www.accidentscene.org)

### **DISCUSSION**

Bystander Assistance is a relatively new concept and refers to community based First Response in traumatic emergency events that require quick response. Like CPR (which has its foundation in responding to Cardiac Events and Choking) and First Aid (that concentrates its efforts on common everyday injuries that might occur), Bystander Assistance has a tremendously important role to play in preparing our communities to respond to trauma. A person's chance in their lifetime of coming upon a crash is more likely than their chance of coming upon someone who has just had a cardiac event or is choking. First Aid begins to prepare the student for trauma but stops short of training them for high speed roadside user events. In a motorcycle crash this information is imperative.

EMS has done a great deal to improve its system with increased training of responders, improved structure and improved equipment, yet a gap exists between the time of the event and when the professional rescuers arrive. This gap must be filled with community training of individuals so that they not only know how to effectively respond and assist the EMS, but also know how to protect themselves so that they do not become injured in the process of trying to help.

## **CONCLUSIONS**

Bystander Assistance Training is relevant and likely to be used by nearly 1/3 of the people who have received training. Increased confidence, a focus on securing the scene and focusing on life threatening injuries have all helped to improve outcomes.

The challenge continues to be access to Bystander Assistance Training which must become more readily available. With an estimated 148,000 fatalities, 10 times that many serious injuries, a cost of 260 billion dollars & 12% of all medical spending<sup>2</sup>, this is a field that has a great deal of room for improvement. A consistent program taught by qualified instructors is the key to maintaining a level of training that can be effectively reflected in expected outcomes from students. ASMI's vision is that BAP classes will be available nationwide someday, similar to how MSF programs are today.

## **ACKNOWLEDGEMENTS**

ASMI would like to thank the MSF, specifically Ken Glasser and Al Hydeman, for supporting our vision and providing funding for this important study through NAMS grant funding. We would like to thank the State Motorcycle Safety Administrators (SMSA) for their input regarding the survey and would also like to thank the 846 people who participated in our survey by taking the time to fill it out and send it back in. A special thank you to Tony "Pan" Sanfelipo and Kathy Awadallah who spent numerous hours entering data for the survey.

## **References:**

- 1 NHTSA Motorcycle Safety Program, January 2003 – Recent Trends
- 2 Trauma System Agenda for the future: Executive Summary, 2003
- 3 2005 Bystander Assistance Survey