

Table S1. The association of head injury and helmet use in the motorcycle pillion of preschool-aged and school-aged children.

Preschool-aged child	Helmet(+) n=18	Helmet(-) n=45	OR (95%CI)	P
				0.768
Head injury (Yes)	5 (27.8)	16 (35.6)	0.7 (0.21-2.31)	
Head injury (No)	13 (72.2)	29 (64.4)	1.4 (0.43-4.76)	
school-aged child	Helmet(+) n=35	Helmet(-) n=29	OR (95%CI)	P
				<0.001
Head injury (Yes)	2 (5.7)	13 (44.8)	0.1 (0.02-0.37)	
Head injury (No)	33 (94.3)	16 (55.2)	13.4 (2.70-66.67)	

Table S2. Associated injuries in the six main body regions.

Variables	preschool-aged child n=938	school-aged child n=670	adult n=16,800
Head trauma, n (%)			
Neurologic deficit	1 (0.1)	2 (0.3)	171 (1.0)
Cranial fracture	61 (6.5)	31 (4.6)	941 (5.6)
Epidural hematoma	32 (3.4)	31 (4.6)	571 (3.4)
Subdural hematoma	47 (5.0)	31 (4.6)	1274 (7.6)
Subarachnoid hemorrhage	32 (3.4)	27 (4.0)	1323 (7.9)
Intracerebral hematoma	5 (0.5)	10 (1.5)	307 (1.8)
Cerebral contusion	20 (2.1)	7 (1.0)	623 (3.7)
Cervical vertebral fracture	1 (0.1)	1 (0.1)	182 (1.1)
Maxillofacial trauma, n (%)			
Orbital fracture	4 (0.4)	6 (0.9)	378 (2.3)
Nasal fracture	2 (0.2)	3 (0.4)	210 (1.3)
Maxillary fracture	5 (0.5)	9 (1.3)	1094 (6.5)
Mandibular fracture	4 (0.4)	9 (1.3)	414 (2.5)
Thoracic trauma, n (%)			
Rib fracture	2 (0.2)	2 (0.3)	1578 (9.4)
Sternal fracture	0 (0.0)	0 (0.0)	26 (0.2)
Hemothorax	0 (0.0)	0 (0.0)	259 (1.5)
Pneumothorax	4 (0.4)	2 (0.3)	301 (1.8)
Hemopneumothorax	2 (0.2)	1 (0.1)	229 (1.4)
Lung contusion	8 (0.9)	0 (0.0)	220 (1.3)
Thoracic vertebral fracture	0 (0.0)	0 (0.0)	164 (1.0)
Abdominal trauma, n (%)			
Intra-abdominal injury	15 (1.6)	8 (1.2)	276 (1.6)
Hepatic injury	17 (1.8)	4 (0.6)	344 (2.0)
Splenic injury	8 (0.9)	7 (1.0)	177 (1.1)
Retroperitoneal injury	0 (0.0)	0 (0.0)	44 (0.3)
Renal injury	2 (0.2)	5 (0.7)	91 (0.5)
Urinary bladder injury	2 (0.2)	0 (0.0)	24 (0.1)

Lumbar vertebral fracture	0 (0.0)	0 (0.0)	311 (1.9)
Sacral vertebral fracture	0 (0.0)	0 (0.0)	113 (0.7)
Extremity trauma, n (%)			
Scapular fracture	4 (0.4)	0 (0.0)	373 (2.2)
Clavicle fracture	7 (0.7)	7 (1.0)	1513 (9.0)
Humeral fracture	182 (19.4)	123 (18.4)	870 (5.2)
Radial fracture	44 (4.7)	187 (27.9)	1814 (10.8)
Ulnar fracture	33 (3.5)	100 (14.9)	864 (5.1)
Metacarpal fracture	4 (0.4)	3 (0.4)	506 (3.0)
Pelvic fracture	6 (0.6)	2 (0.3)	497 (3.0)
Femoral fracture	41 (4.4)	35 (5.2)	1417 (8.4)
Patella fracture	0 (0.0)	1 (0.1)	463 (2.8)
Tibial fracture	17 (1.8)	22 (3.3)	952 (5.7)
Fibular fracture	19 (2.0)	14 (2.1)	702 (4.2)
Calcaneal fracture	0 (0.0)	5 (0.7)	906 (5.4)
Metatarsal fracture	2 (0.2)	5 (0.7)	560 (3.3)

Table S3. Comparison of associated injuries in the six main body regions.

Variables	preschool-aged child vs. adult		school-aged child vs. adult	
	OR (95% CI)	P	OR (95% CI)	P
Head trauma, n (%)				
Neurologic deficit	0.1 (0.02-0.74)	0.005	0.3 (0.07-1.18)	0.071
Cranial fracture	1.2 (0.90-1.53)	0.245	0.8 (0.57-1.18)	0.303
Epidural hematoma	1.0 (0.70-1.44)	1.000	1.4 (0.95-2.00)	0.104
Subdural hematoma	0.6 (0.48-0.87)	0.004	0.6 (0.41-0.85)	0.004
Subarachnoid hemorrhage	0.4 (0.29-0.59)	<0.001	0.5 (0.33-0.73)	<0.001
Intracerebral hematoma	0.3 (0.12-0.70)	0.005	0.8 (0.43-1.54)	0.562
Cerebral contusion	0.6 (0.36-0.89)	0.012	0.3 (0.13-0.58)	<0.001
Cervical vertebral fracture	0.1 (0.01-0.70)	0.004	0.1 (0.02-0.98)	0.017
Maxillofacial trauma, n (%)				
Orbital fracture	0.2 (0.07-0.50)	<0.001	0.4 (0.18-0.88)	0.021
Nasal fracture	0.2 (0.04-0.68)	0.005	0.4 (0.11-1.11)	0.070
Maxillary fracture	0.1 (0.03-0.19)	<0.001	0.2 (0.10-0.39)	<0.001
Mandibular fracture	0.2 (0.06-0.46)	<0.001	0.5 (0.28-1.05)	0.071
Thoracic trauma, n (%)				
Rib fracture	0.02 (0.01-0.83)	<0.001	0.03 (0.01-0.12)	<0.001
Sternal fracture	-	0.399	-	0.625
Hemothorax	-	<0.001	-	0.002
Pneumothorax	0.2 (0.09-0.63)	0.002	0.2 (0.04-0.66)	0.004
Hemopneumothorax	0.2 (0.04-0.62)	0.003	0.1 (0.02-0.77)	0.009
Lung contusion	0.6 (0.32-1.32)	0.240	-	0.005
Thoracic vertebral fracture	-	0.003	-	0.012
Abdominal trauma, n (%)				
Intra-abdominal injury	1.0 (0.58-1.64)	1.000	0.7 (0.36-1.47)	0.438
Hepatic injury	0.9 (0.54-1.44)	0.640	0.3 (0.11-0.77)	0.011
Splenic injury	0.8 (0.40-1.65)	0.625	1.0 (0.46-2.12)	1.000

Retroperitoneal injury	-	0.172	-	0.266
Renal injury	0.4 (0.10-1.60)	0.243	1.4 (0.56-3.41)	0.590
Urinary bladder injury	1.5 (0.35-6.33)	0.646	-	0.625
Lumbar vertebral fracture	-	<0.001	-	0.001
Sacral vertebral fracture	-	0.018	-	0.042
Extremity trauma, n (%)				
Scapular fracture	0.2 (0.07-0.51)	<0.001	-	<0.001
Clavicle fracture	0.1 (0.04-0.16)	<0.001	0.1 (0.05-0.23)	<0.001
Humeral fracture	4.4 (3.70-5.25)	<0.001	4.1 (3.35-5.07)	<0.001
Radial fracture	0.4 (0.30-0.55)	<0.001	3.2 (2.68-3.81)	<0.001
Ulnar fracture	0.7 (0.47-0.96)	0.032	3.2 (2.59-4.05)	<0.001
Metacarpal fracture	0.1 (0.05-0.37)	<0.001	0.1 (0.05-0.45)	<0.001
Pelvic fracture	0.2 (0.09-0.47)	<0.001	0.1 (0.02-0.40)	<0.001
Femoral fracture	0.5 (0.36-0.68)	<0.001	0.6 (0.42-0.85)	0.003
Patella fracture	-	<0.001	0.1 (0.01-0.38)	<0.001
Tibial fracture	0.3 (0.19-0.50)	<0.001	0.6 (0.37-0.87)	0.010
Fibular fracture	0.5 (0.30-0.75)	0.001	0.5 (0.29-0.84)	0.010
Calcaneal fracture	-	<0.001	0.1 (0.06-0.32)	<0.001
Metatarsal fracture	0.1 (0.02-0.25)	<0.001	0.2 (0.01-0.53)	<0.001