

purposive sampling. The cross-sectional survey explored the musculoskeletal degenerative changes and costs of treatment and productivity loss. The qualitative inquiry (FGDs and interviews) explored the determinants of reduced access and reasons of disabilities and fatalities.

Results Out of 350, around (315) 90% date tree climbers sustained major to fatal injuries with almost all having vertebral and foot deformities. As for treatment (292)83% considered the expenses incurred in consultation fee, medicines, and travel as high. Around (297) 85% rendered meager earnings, unavailability of cheaper medicines and rehabilitative treatment coupled with persistent poverty negatively affected the prognosis and quality of life and paved way for preferring quitting the profession. The qualitative inquiry augmented these findings with all the stakeholders.

Learning Outcomes The paucity of cost-effective rehabilitative services amid socioeconomic burden lead to poor occupation health and preference to quitting of profession.

5D – Road – Motorcycles, March 24, 2021

5D.001 E-SCOOTERS: WHAT DO THEY MEAN FOR THE SAFETY OF CYCLISTS AND PEDESTRIANS?

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Background Like in many large cities around the world, the popularity of electric micro-vehicles and in particular e-scooters is rapidly growing in Austrian cities. Many new questions with respect to road safety arise, e.g. ‘What measures can be taken to increase the road safety of e-scooter users themselves and of other road users?’ Thus, the KFV (Austrian Road Safety Board) carried out an extensive e-scooter study in 2019.

Methods The following methods were applied:

1. analysis of existing data on e-scooters, in particular on accidents and legal regulations
2. online and face-to-face-surveys among 500 e-scooter users and almost 600 non-users on personal experiences, knowledge about legal regulations and user attitudes and behaviour
3. on-site observations among 1.500 e-scooter users with focus on speed behaviour, usage of infrastructure, helmet wearing and conflicts with cyclists and pedestrians

Results Results showed that...

1. ... people are not sufficiently informed about the applicable legal regulations on e-scooters
2. ... 34,4% of all surveyed e-scooter-users drove illegally on the sidewalk
3. ... conflicts occur frequently because of carelessness and distraction, disregard of traffic rules, violations of priority and excessive speed

Conclusion There is an ongoing process on discussing measures in the following areas:

1. legislation for e-scooter users (e.g. reduction of speed limits, changes in technical requirements),
2. awareness raising and training in order to reduce risks,

3. improvement of infrastructure of all road users (e.g. own parking spaces),

Learning Outcomes This relatively new topic requires further attention and studies in the future.

5D.002 INVESTIGATION OF NON-STANDARD MOTORCYCLE HELMET USE AND RELATED FACTORS IN VIETNAM

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Background Following Vietnam’s 2007 helmet law, helmet-wearing rates are high, at 81% for drivers and 60% for passengers (WHO, 2018), but standard helmet-use is low (WHO, 2013). This study examines characteristics of helmets and rates of quality helmet-use and related factors.

Method This study uses a cross-sectional design with a sample size of 540 drivers and passengers in HCMC and Thai Nguyen. Data on helmet use was collected using structured questionnaire. Both child and adult helmets were exchanged and tested in two stages: the first test assessed basic required components, size, weight, protection areas. Helmets passing the first stage proceeded to a second test on impact absorption.

Results Significant proportions of respondents wear substandard helmets, with the wearing-rate of poor-quality ‘cap-helmets’ without lining at 25.6%. 41.5% of surveyed helmets had been used over three years, exceeding the recommended maximum age.

Of surveyed helmets, 37.6% passed the first test, and 10.6% of all surveyed helmets also passed the impact absorption test.

Although 48.9% of participants demonstrated willingness-to-pay >250,000VND, the average price of a standard helmet, substandard helmets were widely used as consumers prioritized appearance and comfort.

Conclusion Though helmet-wearing rates in Vietnam are high, the quality of helmets used by motorcyclists remains poor. Only 10.6% of surveyed helmets met technical standards, though participants demonstrated willingness-to-pay for a standard helmet.

Learning Outcomes Further research is needed to understand detailed needs and barriers in implementing actions to increase standard helmet-use. Improving enforcement and awareness of helmet quality on the market is also crucial.

5D.003 REGULATING COMMERCIAL MOTORCYCLE FLEETS – A SURVEY IN TANZANIA

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Background In Tanzania, the number of registrations for two- or three-wheeled vehicles has been climbing since 2006. In 2016, more than 50% of registered vehicles were motorised two- or three-wheelers; 23% of the deaths caused by traffic accidents were riders of this kind of vehicle.