0833 COST ANALYSIS OF PLAYGROUND EQUIPMENT INJURY AT SCHOOL USING LARGE-SCALE SCHOOL INSURANCE DATA OF JAPAN

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Cost analysis is important to effective strategy for childhood injury prevention. In Japan, more than 90% of pupils and students in elementary school take out insurance managed by National Agency for the Advancement of Sports and Health (NAASH). The NAASHs data includes information on injuries as well as insurance proceeds. Therefore, epidemiologically important data on injuries in school environment can be collected through the school insurance. In the 2007 fiscal year, over 460 000 injuries that cost $50 for medical treatment occurred at elementary schools in Japan. 18 609 injuries of them were caused by playground equipments. The Childhood Injury Prevention Council of Japan (CIPEC) analysed 18 609 data on playground equipment in cooperating with NAASH. Using text mining technology, typical injury situations were analysed in this study. Moreover, using cost data, the authors analysed the data in terms of high cost behaviour, that indicates which kind of behaviour causes high cost injuries, and high cost product, that indicates which kind of product causes high cost injuries. Our analysis clarified the followings. For example, in case of swing injury, jumping down from a swing on purpose and more than two students swing cost $110 and $120 respectively, which are examples of the most expensive behaviours. As for high cost product, separating bar around swing is an example of the most expensive elements. This study indicates that detailed analysis of injury in terms of high cost behaviour and high cost product are useful for developing education program and prioritising improvement of product/environment.