USING NATIONAL HEALTH INSURANCE CLAIMS DATA TO 
ESTABLISH INJURY SURVEILLANCE IN TAIWAN: A 
FEASIBILITY STUDY

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Background The National Health Insurance (NHI) programme was 
launched in 1995 in Taiwan and nearly 99% of 23 million citizens 
are enrolled in the NHI in 2010.

Objective To examine the feasibility of using NHI discharge claims 
data to establish injury surveillance system in Taiwan.

Methods There are three diagnoses variables for emergency room 
visits (ERV) in outpatient claims data and five diagnoses variables 
and two variables for external causes of injury codes (E-codes) in 
inpatient hospitalisation (IH) claims data. We used claims data of 
year 2008 to examine the completeness and specificity of reporting 
E-codes in claims data. The injured cases were defined as having 
ICD-9-CM nature of injury codes (N-codes) 800–999 in any one of 
the diagnosis variables.

Results A total of 16 164 861 cases (350 835 ERV and 265 651 IH) 
with injury N-codes were identified in NHI claims data in 2008 
which resulted in an overall incidence rate of 7093 per 100 000 
population. Unfortunately, only 3% of ERV and 75% of IH with 
N-codes had E-codes reported. Of 154 hospitals with N-code as the 
main diagnosis in IH in 2008, only 27 hospitals had percentage of 
non-reporting of E-code higher than 80%.

Significance Efforts are needed to improve the percentage of report- 
ing E-code among ERV and IH with injury to promote the feasibility 
of using NHI claims data as injury surveillance system in Taiwan.