



THE GEORGE INSTITUTE
for Global Health



Economic and Disability consequences of Injury in Vietnam

Ha Nguyen, PhD candidate, Injury Division,
The George Institute
School of Public Health, University of Sydney, Australia

Outline of presentation

- **Rationale of the study**
- **Research questions**
- **Research objectives**
- **Method**
- **Progress to date**

Rationale

■ Injury, a serious health issue in Vietnam

- Annually, ~ 38,000 injury deaths, >10% of all deaths
 - 40-50 deaths due to road traffic accident per day
 - ~ 20 deaths due to drowning
- ~ 5.5% experienced at least 1 injury (non-fatal)

■ However,

- Economic and disability consequences are unknown



A decade of

Research questions

- **How much injuries cost to the injured victims and their families?**
- **How costs vary over time?**
- **How much does the disability (in terms of quality of life score) of the injury victims change overtime**

Objectives

- **To measure economic costs (direct and indirect) after injuries, specifically at 1, 2, 4 and 12 months.**
- **To measure disability (in terms of quality of life score) after injuries, specifically at 1, 2, 4 and 12 months.**
- **To explore demographic, injury and health care related factor in predicting the economic and disability consequences after injuries.**

Method

- **Design**
 - A prospective longitudinal quantitative design

- **Subjects**
 - Patients admitted to a provincial general hospital (Thai Binh province, a province 100km south of Hanoi, Vietnam capital city)
 - Admitted due to an injury
 - Hospitalized for at least 1 day (overnight)

Method

- **Outcome measures:**

- Direct (resource spent by injured person and care giver)
- Indirect (resource lost by injured person and care giver)
- Quality of life measured by WHODAS II (World Health Organization Disability Assessment Schedule II)

Measured at 1, 2, 4, and 12 months after hospital discharge

- **Independent variables:**

- Demographic information
- Injury context
- Injury diagnosis and treatment

Method – Data collection process



RECRUITMENT

Hospital interview:

- Demographic information
 - Injury context
 - Injury diagnosis and treatment
 - Costs during hospitalisation

Follow-up interviews at 1, 2, 4 and 12 months after injury:

- Direct and indirect cost
- Health related quality of life

Progress to date

- **Ethics approval: Dec 2009,**
 - ~ 5 months of reviewing protocol and communication (confidentiality of patient information, guardianship to provide information of the family member on behalf of the patients...)
 - → conditional approval only

 - Approval from local ethic committees were also required: the hospital and local research partner (the Hanoi School of Public Health)
 - → full approval

Progress to date

- **Development of questionnaires and training manual:**
 - Hospitalization form: collected during hospitalization
 - Demographic information
 - Injury context
 - Injury diagnosis and treatment
 - Direct (resource spent by injured person and care giver)
 - Indirect (resource lost by injured person and care giver)
 - Economic hardship

 - Follow-up forms: 4 follow-ups
 - Costs during follow-up
 - Quality of life

Progress to data

■ Training for data collection

- Hospital nurses: collecting data on
 - Demographic information: age, sex, occupation, average income
 - Injury context: cause, time and date, use of protection device, use of alcohol
 - Injury diagnosis: severity, nature of injury, injured body positions
 - Injury treatment: type of surgery
 - Costs during hospitalization: used by both patient and care giver
- Community health worker: collecting data on
 - Costs during follow-up: 1, 2, 4 and 12 months after discharge
 - Health related quality of life

Progress to date

■ Data have been collected

- Hospital recruitment: continuously in 8 months (Jan, 2010 – Aug 2010)
 - 910 patients
- First follow-up: 1 month after discharge, also continuously in 8 months (Feb, 2010 – Sep 2010)
 - ~ 15% of loss to follow-up: dead, moved to other areas, unable to find
- Second follow-up: 2 months after discharge, also continuously in 8 months (March, 2010 – Oct 2010)
 - ~ 5% of loss to follow-up: moved to other areas

Next steps

- **Keep collecting data for 3rd and 4th follow-ups**
- **Cleaning separated data set**
- **Merging data to make a longitudinal data set**
- **Analysis and drafting papers**
 - Cost of injury during hospitalization
 - Cost of road traffic crashes during the first 4 months after injuries.
 - ...??? ...

THANK YOU FOR YOUR ATTENTION!



AND QUESTIONS?