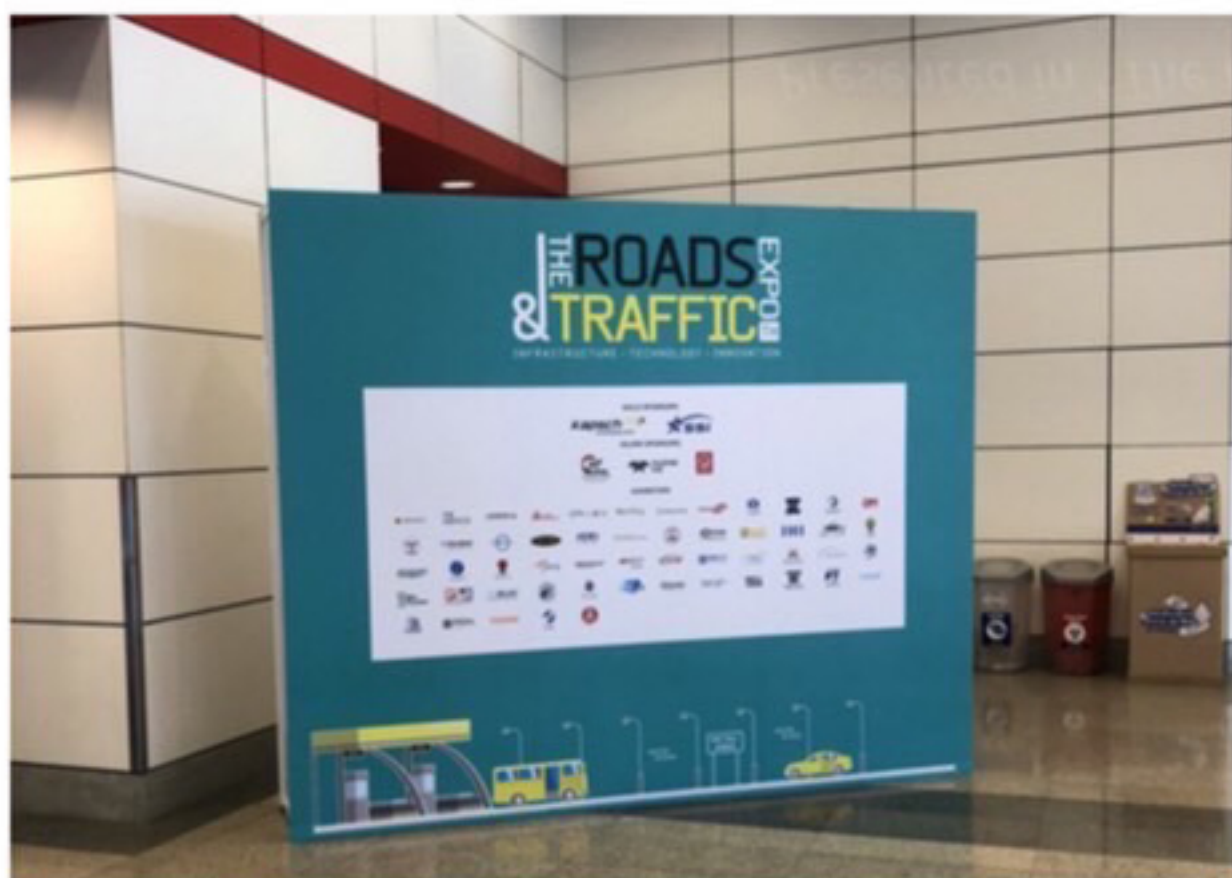


Data Integration and analysis for road safety

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Presented in "The Road & Traffic: Thailand EXPO 2022" 26 October 2022



Information systems are basic and important key components for RTI prevention. Establishing standards, planning strategies and taking action all require data of the situation to accurately assess the severity of the problem being faced and also to monitor & evaluation the impact of the implemented measure

The ideal characteristic of data system should be

1. Should make use of their data system effectively
2. The quality of the developed data system should be
 - Simplicity

- Flexibility
- Acceptability
- Sensitivity
- Positive predictive value
- Representative
- Timeliness

3. Should have good method to Validate the collected Data , and
4. Should have Reliable Classification and Coding System

Thailand Ministry of Public Health had developed Injury data collecting software program called Injury Surveillance program since 1995 which is 27 years now

In 1996 the program was pilot implemented in 5 regional hospitals

In 2001 it was implemented in 22 regional hospitals

In 2014 MOPH had announced that every provincial hospitals had to use IS program to collected data from all injured patients visited Emergency department

Right now we have a single national software program to collected injury data implemented in every provinces in the country.

Data from IS program had been used to

- report the situation of several type of injury including risk group and risk behavior
- It is tool for monitor and evaluation the impact of law , policy and several measure
- It is source of data for advocacy
- It is source of data for studying factor contributing to mortality and morbidity
- It is tool for research and development

Many national legislation had been successfully advocated by using data from IS program such as helmet law in 1996, seat belt law in 1997, drunk driving law in 2000, EMS act in 2008, Child seat in 2022

In this year National Directing Center for Road Safety who is the National Lead agency for RS had decided to use IS data base as data source to monitor the mortality from road traffic injury and to monitor helmet wearing rate and drink driving rate

In 2013, we found that data from some sources were redundant. Therefore, information was then selected from three sources: from death certificate, POLIS data from the police department, and E-claim information from the insurance company. All of the information regarding the individual was collected and cross-checked for duplication. The key variable used for such checks are the national identification number or passport number, first name and surname, date of accident or death, and province where accident or death occurred.

This was the first time that we were successfully integrated data from – 3 sources

which was then had further important movement

1. The integrated data can be presented in various forms via the agencies' dashboards. The Digital Government Development Agency under the Office of the Prime Minister can disseminate information through the government's open data centers allowing access to relevant agencies, academics, students, and all interested parties.
2. The Provincial Directing Center for Road Safety has integrated all road accident data and are analyzing it monthly with the

readiness to present all findings at meetings of all levels.

3. The central database and that of the provincial system has been linked to the 3 sources for accuracy re-checking. All provincial personnel have undergone competency training in managing data collection and information utilization.
4. The Office of the Public Sector Development Commission is using the data for performance evaluation based on the Joint KPI of 3 ministries (Health, Interior and Transportation).

This work plan had been recognized by WHO and presented as an example for other countries in data integration from multiple sources.

In summary

Key success factors for establishing sustainable Injury Surveillance System are:-

- ❖ 1. Hospital and Trauma Center policy to develop trauma information system to monitor the activities of every components in inclusive trauma care system.
- ❖ 2. Assign trauma data nurse coordination and support the operation of the trauma data system work plan.
- ❖ 3. Design the data collection form.
- ❖ 4. Design and adjust suitable data collection work flow.
- ❖ 5. Establish software program for data collection and report.
- ❖ 6. Integrate the operation system into routine activity and practice of trauma center.
- ❖ 7. Utilized the collected data as feed back loop in injury prevention programs, and trauma care