

Behavioral Study of Local Three Wheels vehicle Motor vehicle Skylab and Sidecar in Urban Area of Khon Kaen Province

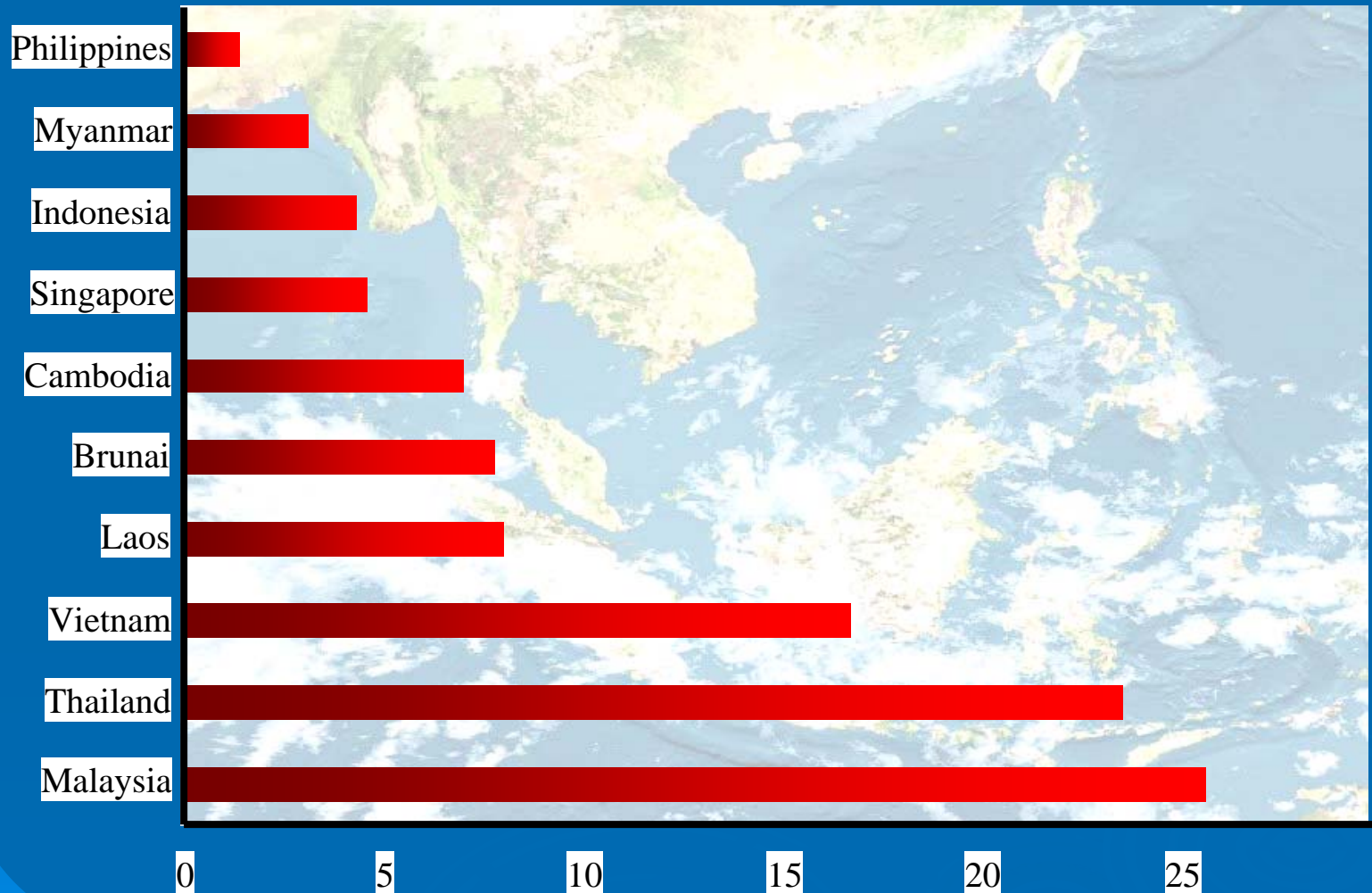


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ASEAN Road Fatality Rate (Fatality per 100,000)



Source: ADB (2005) Ref. **PichaiTaneerananon(2008)**

State of Problem

- Thai people are killed from Traffic accident about 13,000 each year, and subsequence about 1 million as injured or disabled, 2,600 person per day and 100 person per hour. (M.P.H Thailand, 2007)
- Motorcycle is the most popular in addition to Local Three wheel vehicle for carrying also, because of access to be owner .
- Local Three wheel vehicle such as sky lab, and sidecar, but these vehicle are illegal ..and low standard. become way of life of poor people who earn money day by day and cause of accident .

Skylab VS Sidecar



Research Objectives

1. Study **causes of Using** Three wheel Vehicle both Skylab and sidecar in Urban Area Khon Kaen.
2. Study **problems of Using** Three wheel Vehicle both Skylab and sidecar in Urban Area Khon Kaen
3. Study **safety behaviors** of Three wheel Vehicle both Skylab and sidecar **drivers**.
4. Study **passengers' satisfaction** of Three wheel Vehicle both Skylab and sidecar
5. Study Three wheel Vehicle **Policy formulation** guideline both Skylab and sidecar.



Sidecar Focus Group Discussion





Earn money and good transportation in suburban





Researches Team meeting





Data collection for Sidecar's driver





Research Methodology

- Descriptive research
- Qualitative and Quantitative data
- Sample size
 - 250 Drivers
 - 250 Passengers
 - 7 Policemen
 - 5 Transportation officers
 - 5 Academicians

Sample size (Infinite Population)

$$n = \frac{Z^2 pq}{d^2}$$

Meaning

n = sample size

Z = statistical value under standard normal curve = 1.96

P = Anticipated population proportion (80%)

Q = $p-1$

d = precision of estimate = 0.07

Sample size Calculation

$$n = \frac{(1.96)^2 (0.8)(0.2)}{(0.07)^2}$$
$$= 125.77$$

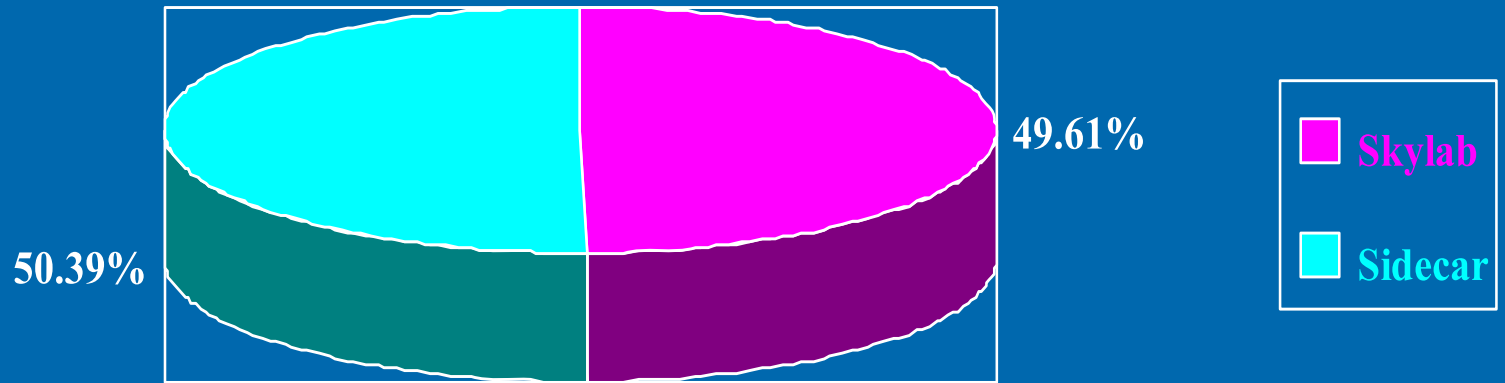
Therefore sample size of

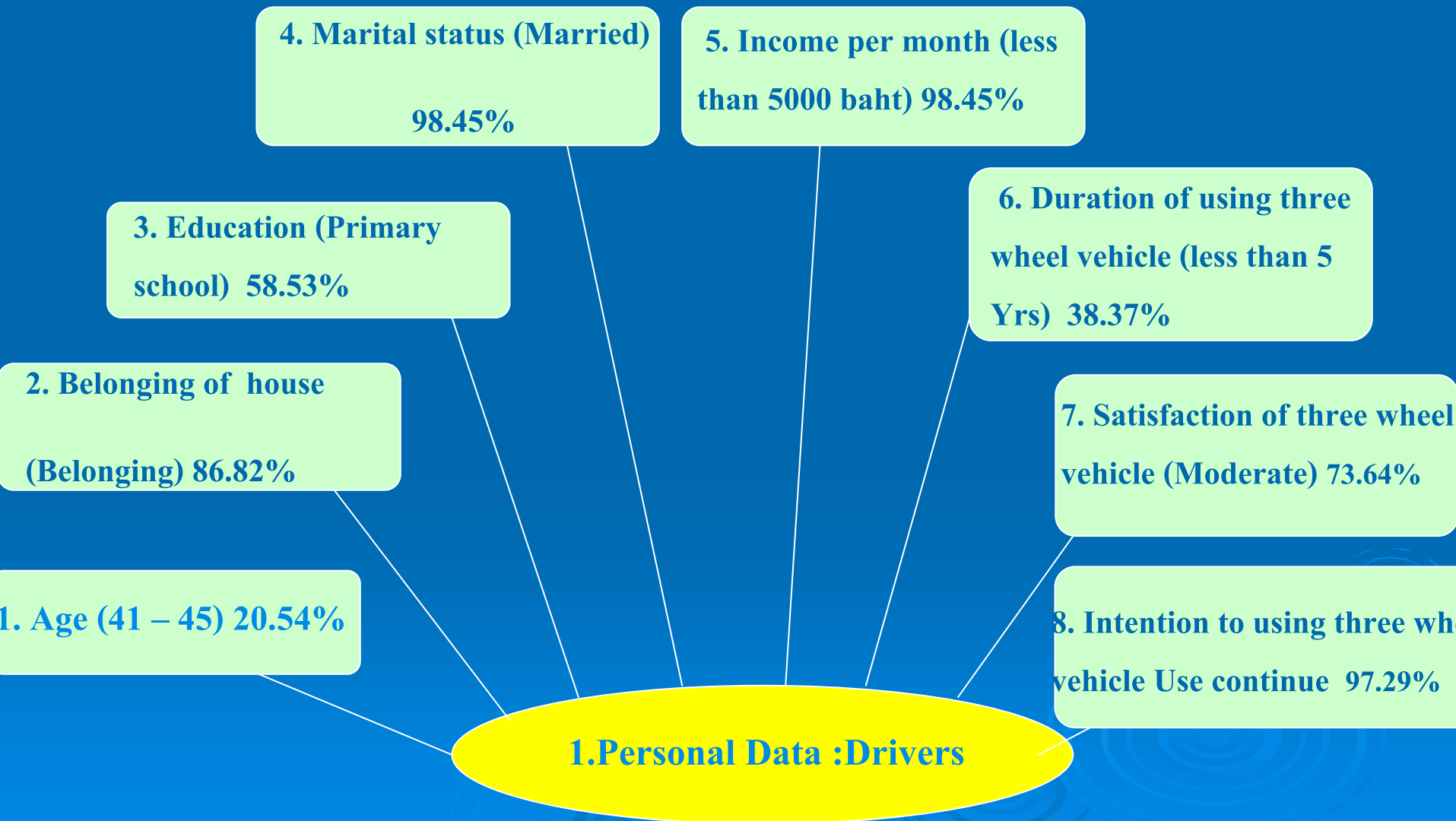
Skylab drivers	125	cases
Sidecar drivers	125	cases
Skylab Passenger	125	cases
Sidecar Passenger	125	cases

Data Collection

- Data collection : interview
 - : Focus group Discussion
 - : In depth interview
 - : Observation
- Analysis : Descriptive
 - Content analysis

Type of car





1. Personal Data :Drivers

1. Age (41 – 45) 20.54%

2. Belonging of house (Belonging) 86.82%

3. Education (Primary school) 58.53%

4. Marital status (Married) 98.45%

5. Income per month (less than 5000 baht) 98.45%

6. Duration of using three wheel vehicle (less than 5 Yrs) 38.37%

7. Satisfaction of three wheel vehicle (Moderate) 73.64%

8. Intention to using three wheel vehicle Use continue 97.29%

Cuase of Using skylab&Sidecar



Problem of Using

Traffic Jam

illegal

Slowly

Limite

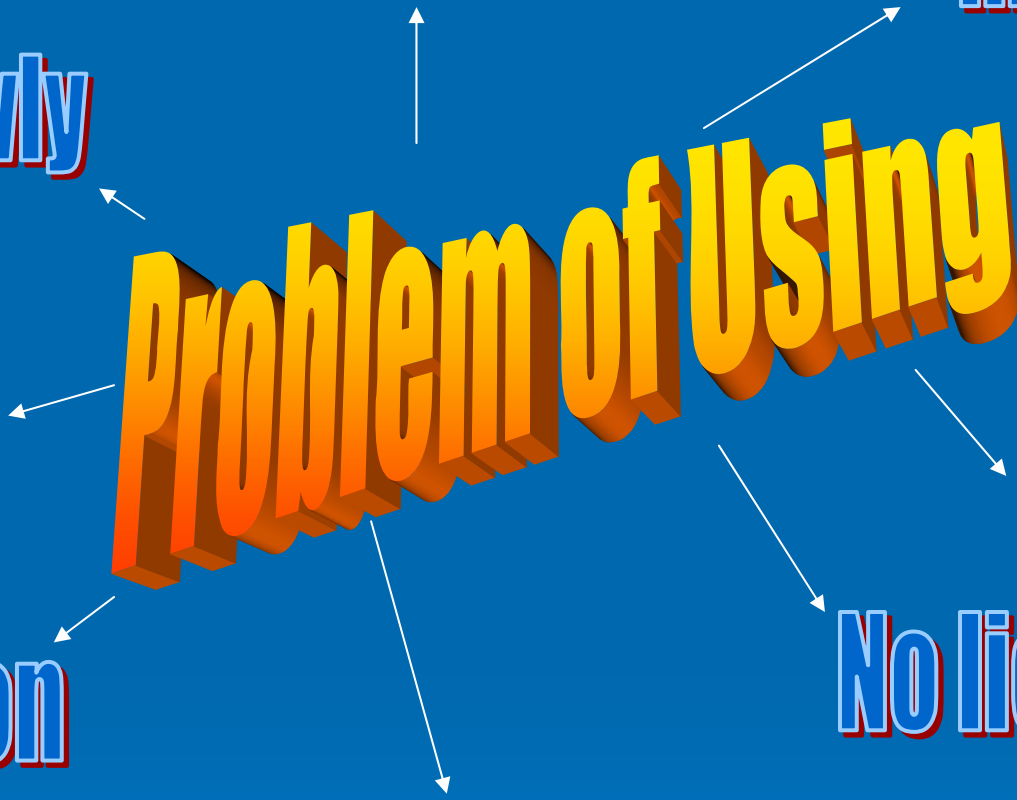
Lound

Location

Pollution

No license

Non standard motor



Safety Behavior of Driver

Helmet use

High speed

Traffic rule

No license

No practice

No Checking

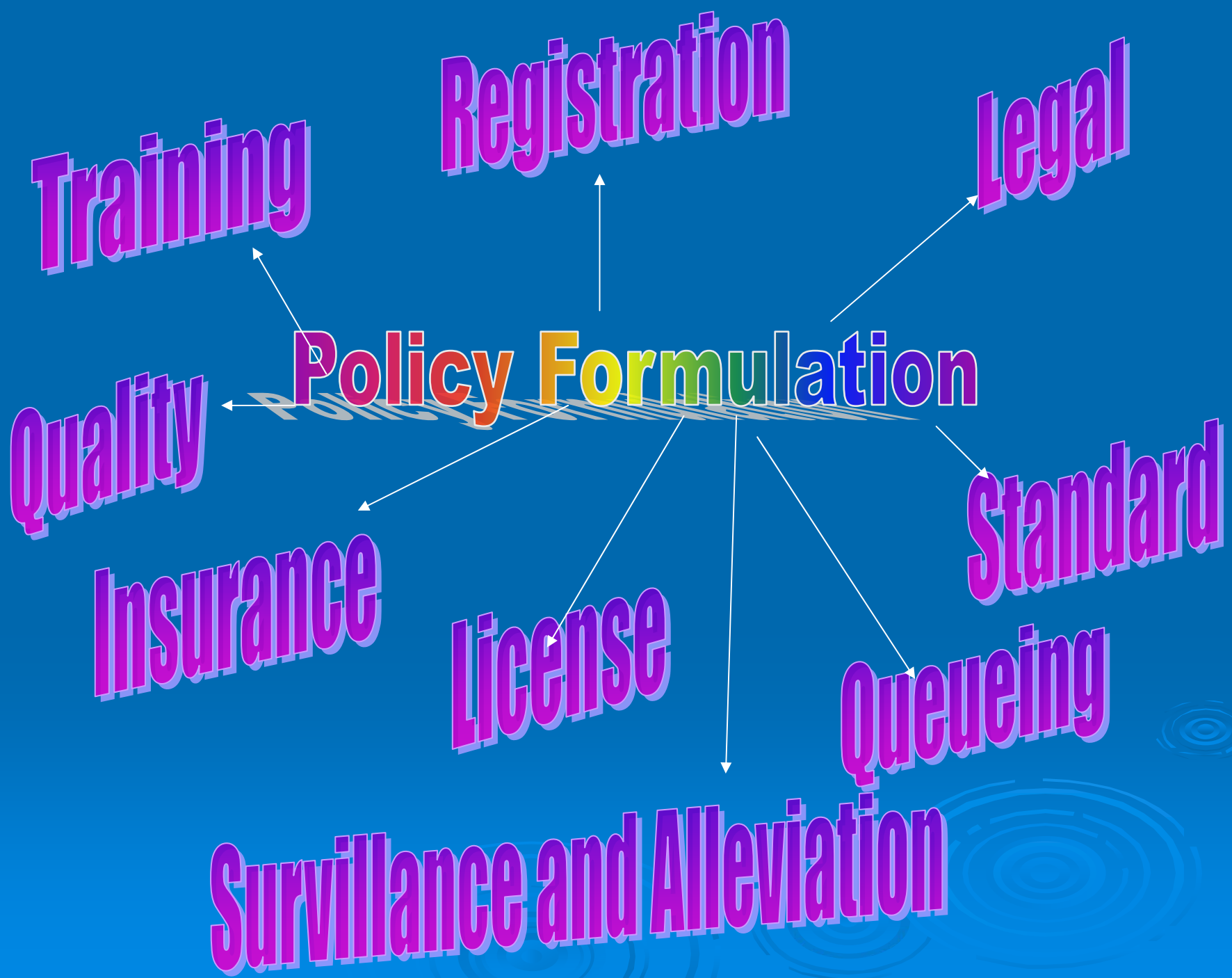


Discussion

- Three-wheel motor vehicular accidents are a common occurrence, The most common mechanism of these accidents was rollover of the machine; fractures were the most frequent injury suffered. The very young are common victims. Accident prevention must begin with education of both parents and children about the potential dangers of three-wheelers--they are, indeed, dangerous, unstable machines.
- (Hayned CD, Stroud CE, Thompson CE, 1986)

Discussion

- Adums, BE(1986)
- A retrospective study of 54 consecutive cases was done to evaluate severity of trauma caused by three-wheel motor vehicles. Skeletal trauma predominated (22 of 54 patients [41%]). Two deaths were reported (4%), as were numerous other injuries. Men were injured more frequently (46 of 54 [85%]) than women. Riders seldom wear protective helmets (two of 54 [4%]), thus contributing to severity of injury. The injury pattern differs from that reported in motorcycle accidents. Specific recommendations are made that address these problems



Thank you for your attention

