

Harnessing Finance and Safety and Equity in Thailand and AEC in WHO point of view

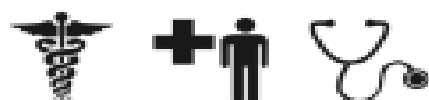
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WHO Expert Advisory Panel for Injury prevention and Control

AN UNSUSTAINABLE URBANIZATION PATH

1.2M

**traffic
fatalities**



Quality of Life

3.7M + 3.2M

**air pollution
premature
deaths**

**physical
inactivity**



Climate

2%

**of the land
but**

70%

**of the CO₂
emissions**



Public
Finances

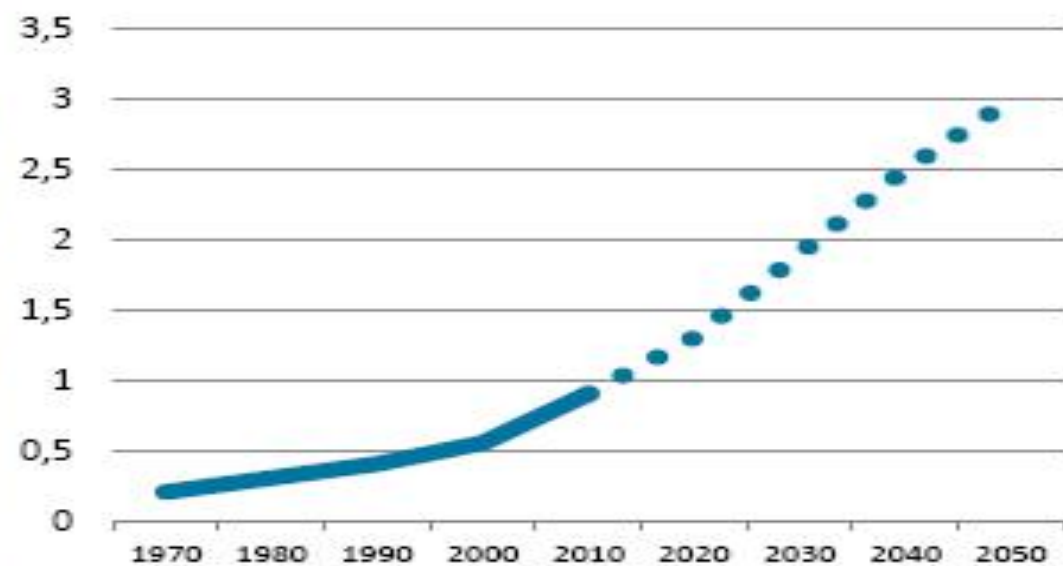
75%

**of the 2050
infrastructure
has yet to be
built**

AN INCREASINGLY URBAN, CAR-FILLED WORLD



World Car Numbers
(billions)



1 billion motor
vehicles today will
triple by 2050

PRIVATE VEHICLE VS. MASS TRANSIT

Passengers per hour per direction (peak)

2 general traffic lanes



1 lane of bus rapid transit



Crashes per year

2 general traffic lanes



1 lane of bus rapid transit



Guadalajara case study





Motorcycles



76% of traffic deaths in Ho Chi Minh City

Study from UK shows that motorcycles have

16x the rate of serious injuries compared to cars

Motorcycle related deaths in Latin America increased by **227%** in 12 years

Traffic Accidents and Poverty

Research from South Korea shows that **one third** of traffic crash victims experienced job loss due to their disability

The victims' average income level was **40%** lower than the national average.

(Jung and Sul 2014)

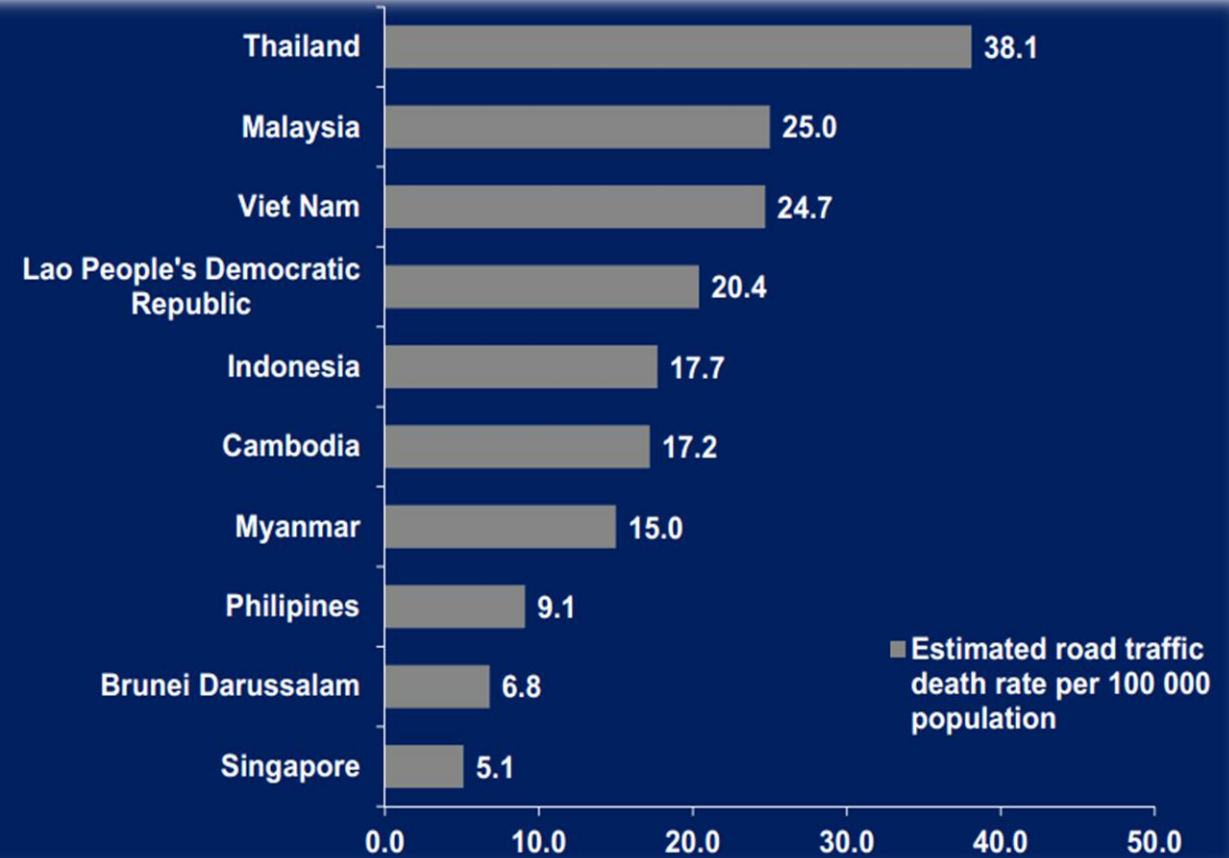
Photo: <http://www.hdprc.gov.ph/multimedia/>



WHO : Estimated total RTI deaths for 2010

- Report number of deaths for 2010 = **13,766**
- Estimated total RTI deaths for 2010 *(13 variables used for estimation: GDP, vehicle/capita, road density, national speed limit urban-rural, health system access, alc consumption, population working, percenaage MC, corruption index, national policy for walking/cycling, population)* = **26,312**
- Estimated total RT fatality rate per 100,000 pop. = **38.07**

Etienne Krug
8 November 2012
WHO-Geneva



15,000 million USD Economic loss in 2014





WHO framework for decade of action(2011-2020)

UNGA ,2 March 2010 , New York

International Coordination

National activities

**Road Safety
Management**

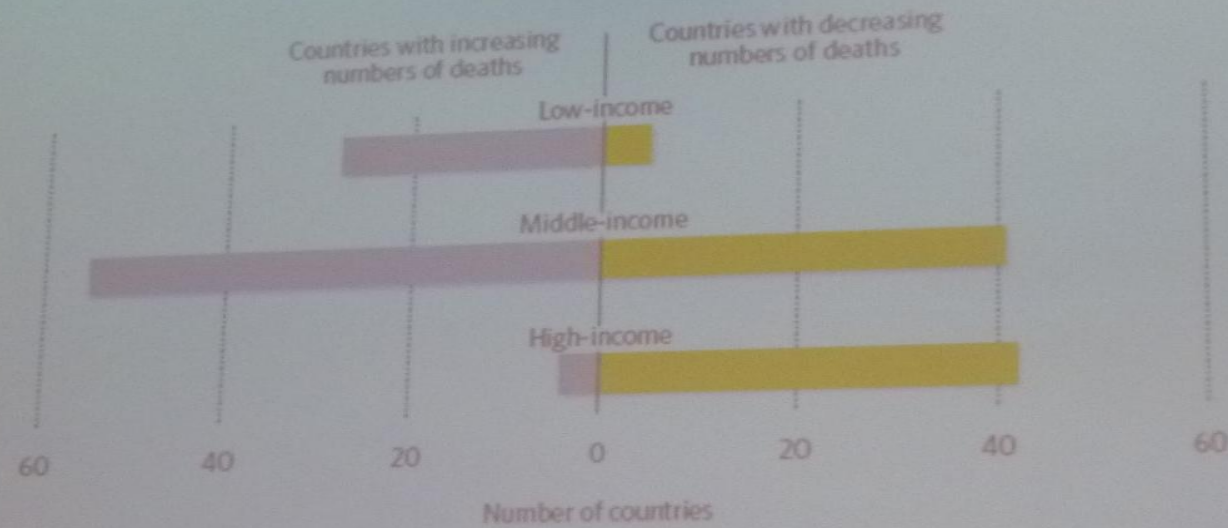
**Infra
structure**

Safe Vehicle

**Road user
behavior**

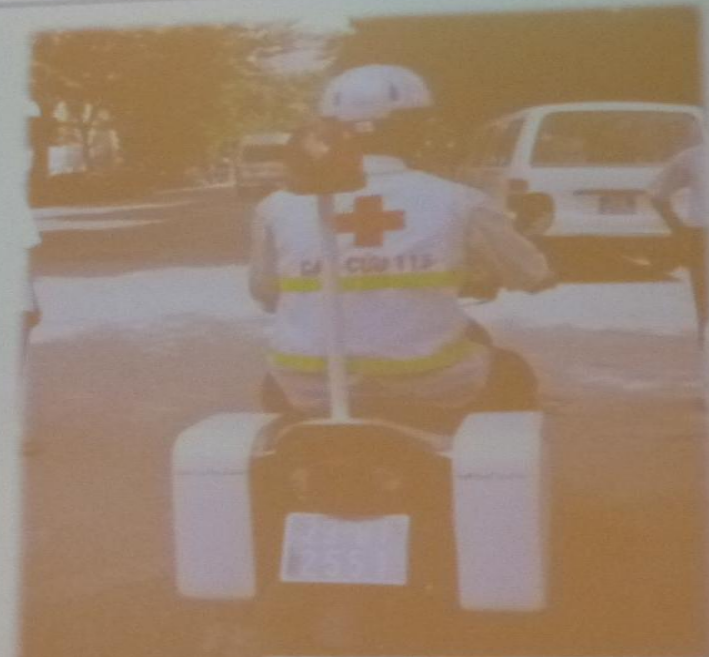
Post crash care

Some countries are making progress



Pillar 5: Post-crash response

- Promotes the improvement of emergency treatment & longer term rehabilitation for crash victims.
 - Pre-hospital care systems
 - Single nationwide telephone number
 - Early rehabilitation
 - Support to injured and bereaved
- Progress
 - Global Alliance for Care of the Injured
 - Trauma Checklist
 - Mandating 3rd party insurance, e.g. Ethiopia
 - Improving trauma care systems, e.g. Brazil, India, Kenya, Mozambique, Russia, Thailand

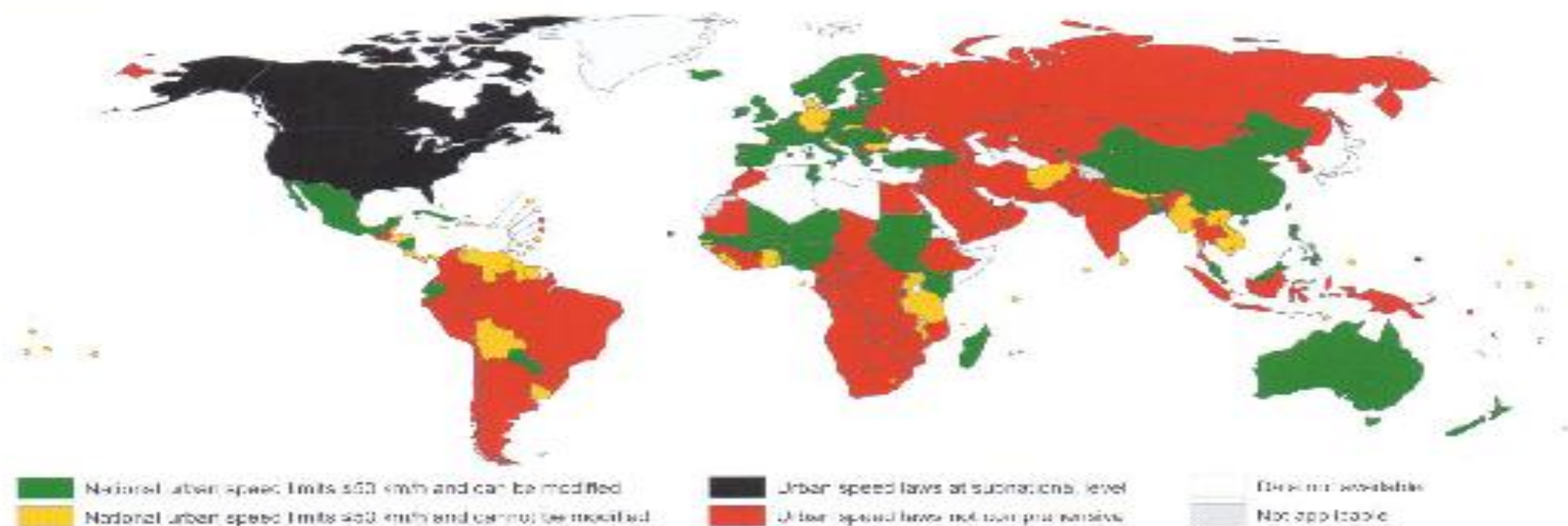


Open Devices and Printers



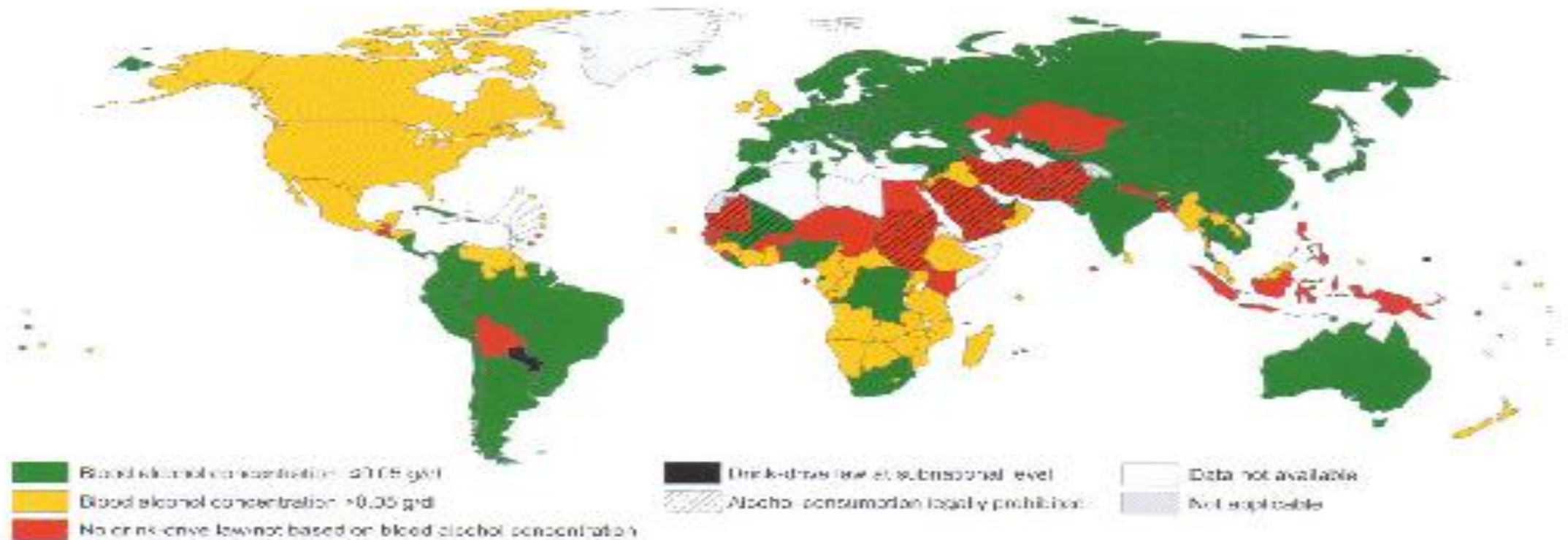
World Health Organization

Figure 5. Urban speed laws by country/area



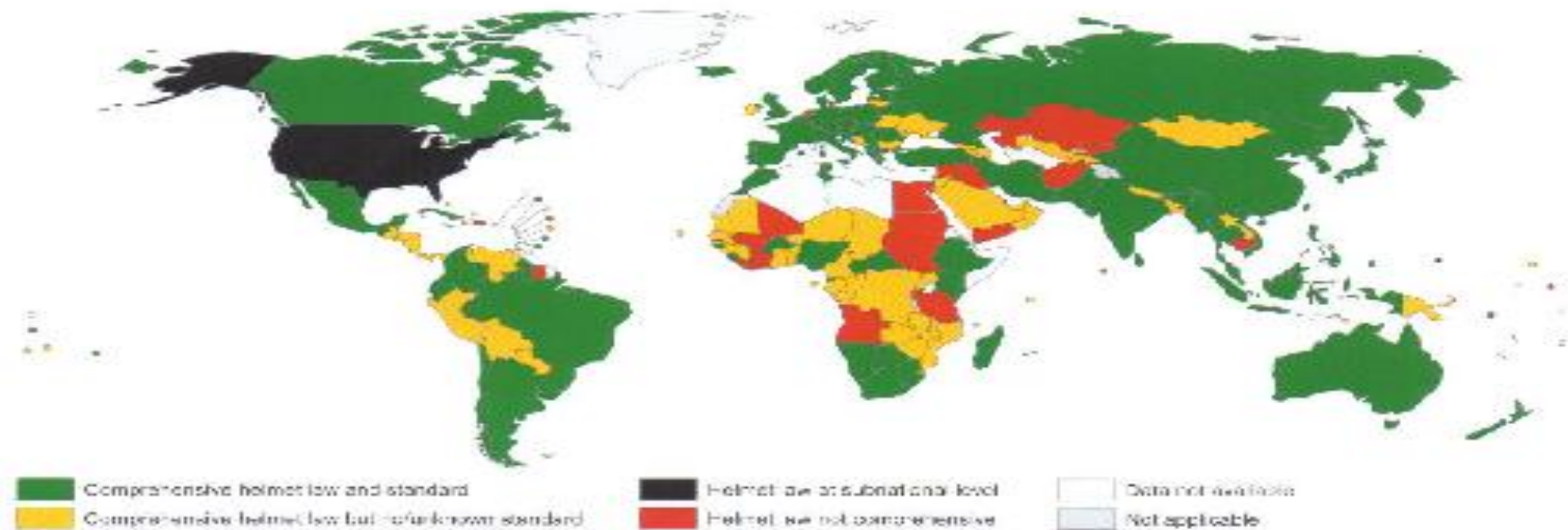
Only 59 countries, covering just 39% of the world's population (2.67 billion people), have implemented an urban speed limit of 50 km/h or less and allow local authorities to reduce these limits.

Figure 6. Drink-driving laws, by country/area



89 countries, covering 66% of the world's population (4.6 billion people), now have a comprehensive drink-driving law, defined as a blood alcohol concentration limit of 0.05 g/dl or less.

Figure 7. Major bicycle helmet laws and helmet standards, by country/area



90 countries, representing 77% of the world's population, have a comprehensive helmet law covering all riders, all roads and all engine types, and apply a helmet standard.

Figure 8. Seat-belt laws, by country/area



WHO framework for decade of action(2011-2020) UNGA ,2 March 2010 , New York



International Coordination

National activities

**Road Safety
Management**

**Infra
structure**

Safe Vehicle

**Road user
behavior**

Post crash care

In each year , 24 million trauma and emergency patients visited ER of the public hospitals , 1.5 million were traffic injured.



2555 surveyed from all public hospital in Thailand , TCC-KKH

Pre hospital care



National EMS Act (2008)

National Emergency Medical Institute (2008)

National EMS Board (2008)

National strategic plan for EMSS(2010)

National budget (2007)

National Emergency Alarm Number (2006)

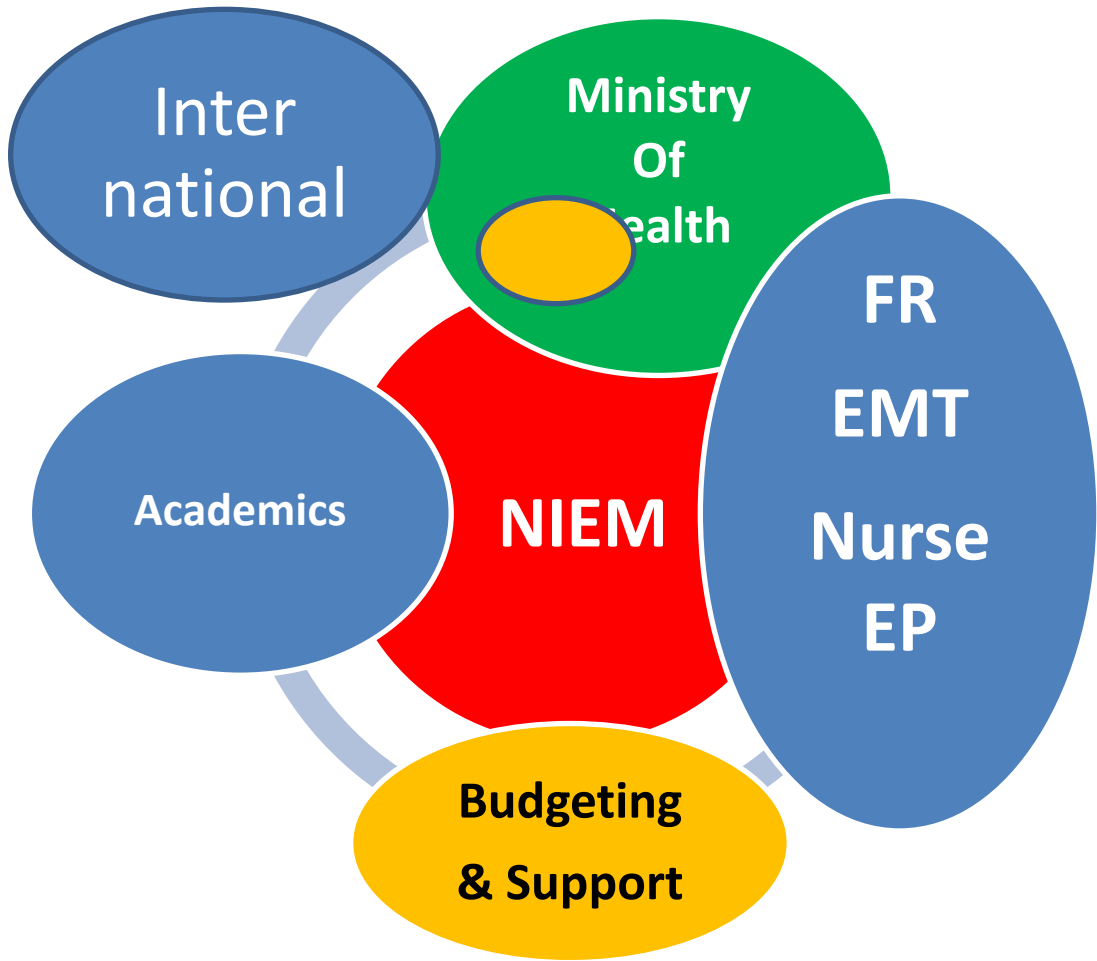
National Trauma Care Standard (2010 by RCST)

National KPI for trauma care (2011 , RCST)

National regulation for designation level of Trauma Center (2011)

National plan for EMS education (2014)

Thailand International Cooperation for EMS System



Vision



Coverage
Efficiency
Effective
Quality
Safety



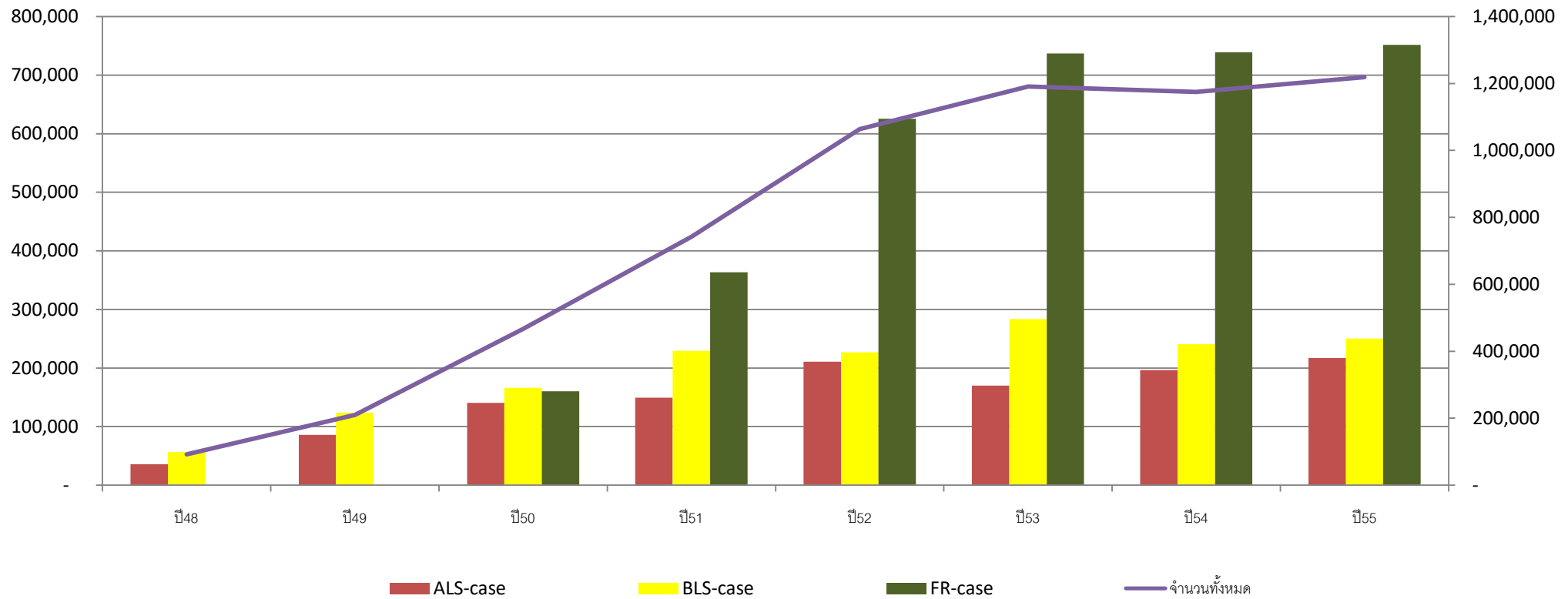
The registered EMS personnel

- The registered EMS Personnel 2015: 150,727 persons

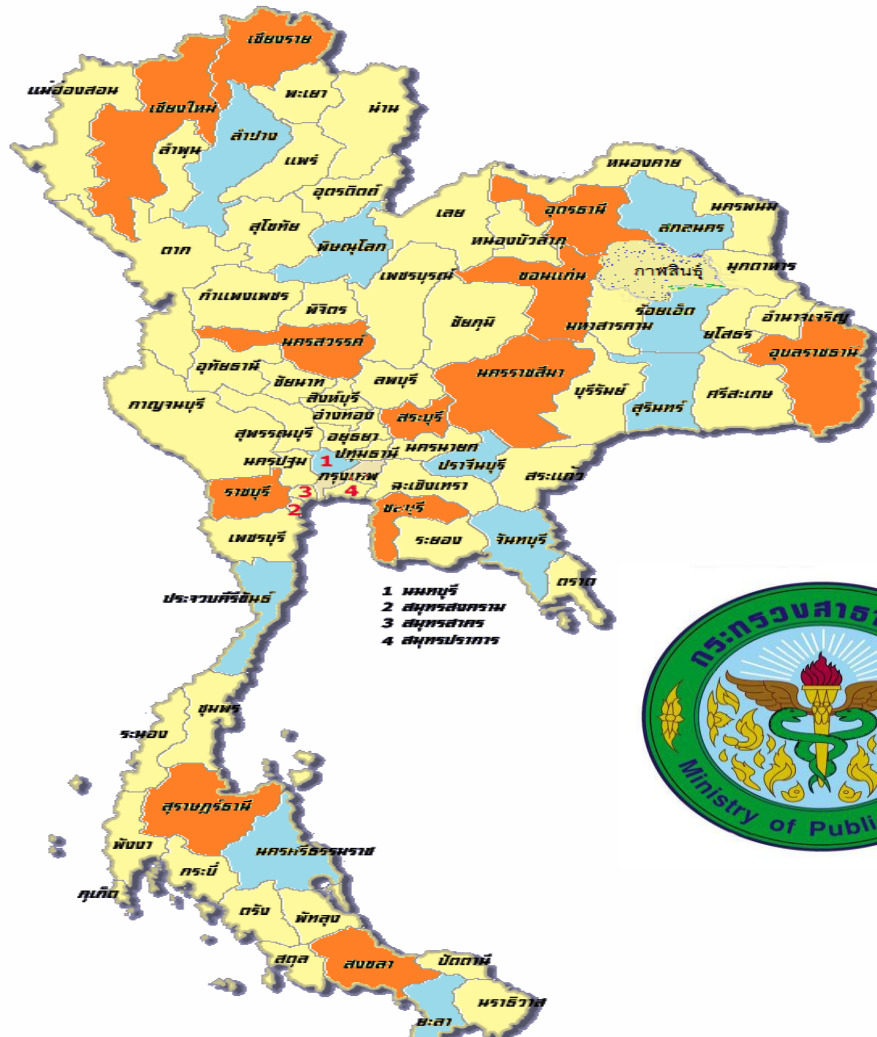
Personnel	Persons
EP,GP	1,639
Paramedics	18,728
EMT-I	2,001
EMT-B	5,267
FR	123,092



Ambulance mission in Thailand 2005-2012



**MOPH National Board
For National Program of
Trauma service plan**



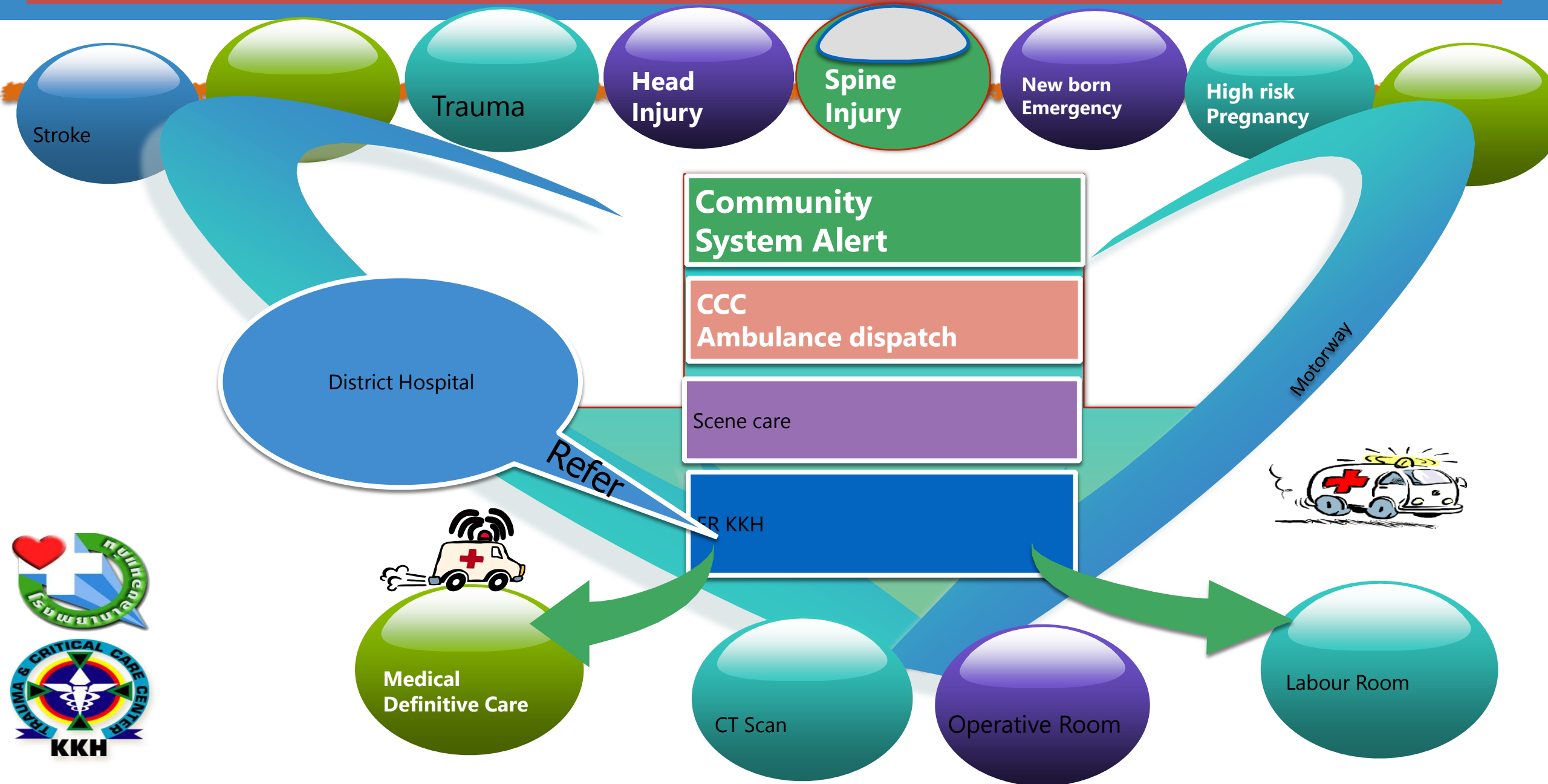
Region	level 1	level 2
1	Chiangrai,Chiangmai	Lumpang
2	-	Phisanulok
3	Nakornsawan	-
4	Saraburi	Nonaburi
5	Rajchaburi	Prajuabkerekum
6	Chonburi	Chantavuri,Prajeen
7	KhonKaen	Roied
8	Udorn	Sakol
9	Nakornrajsima	Surin
10	Ubol	-
11	Suraj	Nakornsritammaraj
12	Songkhla	Yala



***Motor way
for Trauma and Emergency Fast track***



Conceptual Framework of KK Motorway Fast Track



Stroke

Trauma

Head Injury

Spine Injury

New born Emergency

High risk Pregnancy

Community System Alert

CCC Ambulance dispatch

Scene care

REFER KKH

District Hospital

Refer

Motorway

Medical Definitive Care

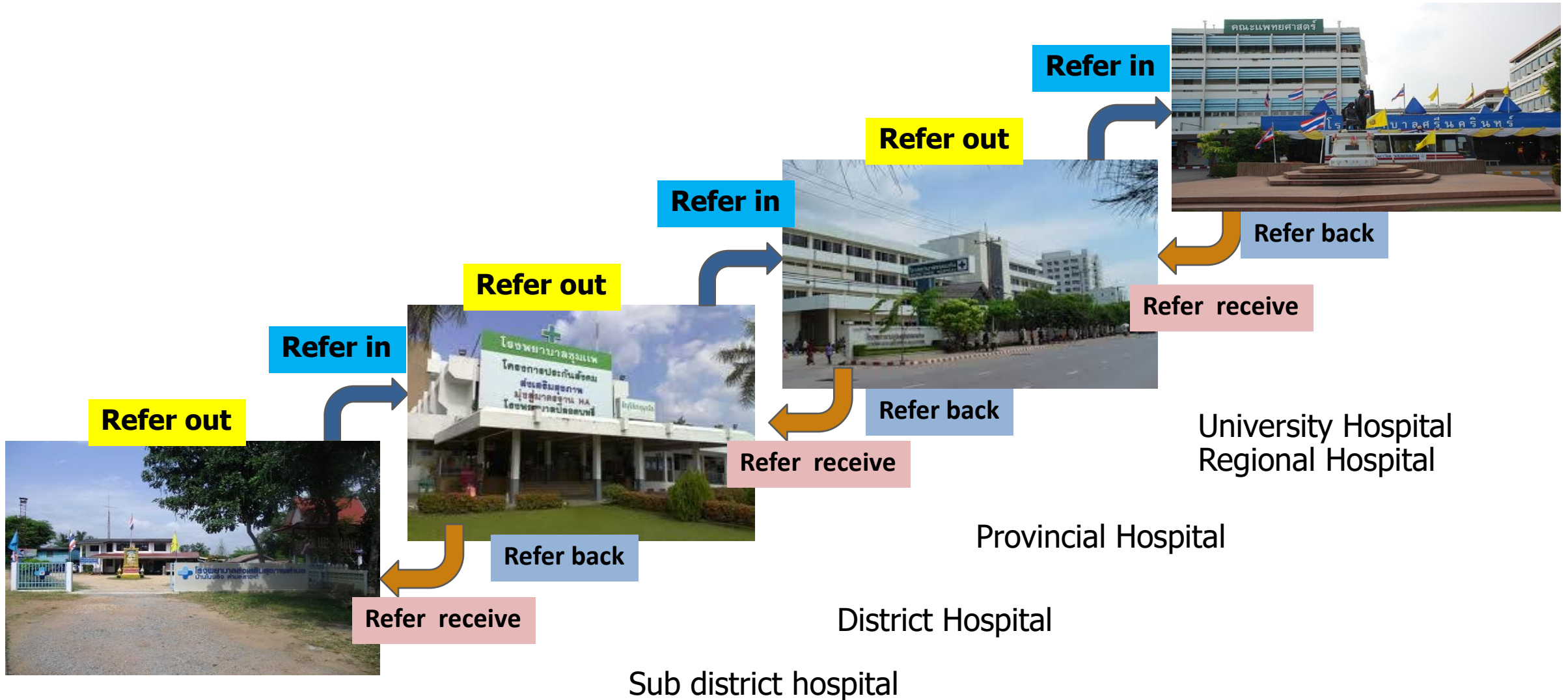
CT Scan

Operative Room

Labour Room



The Referral system TERMINOLOGY



Finance and safety and equity in Thailand

- Pre hospital care

The service is provided for all traffic injured patients free of charge

Government supports all cost of the service through EMS fund run by National Institute for Emergency Medicine.

Finance and safety and equity in Thailand

Hospital care

- Health insurance system for Thai

Health care scheme (National Health security- Universal coverage)

Social security scheme

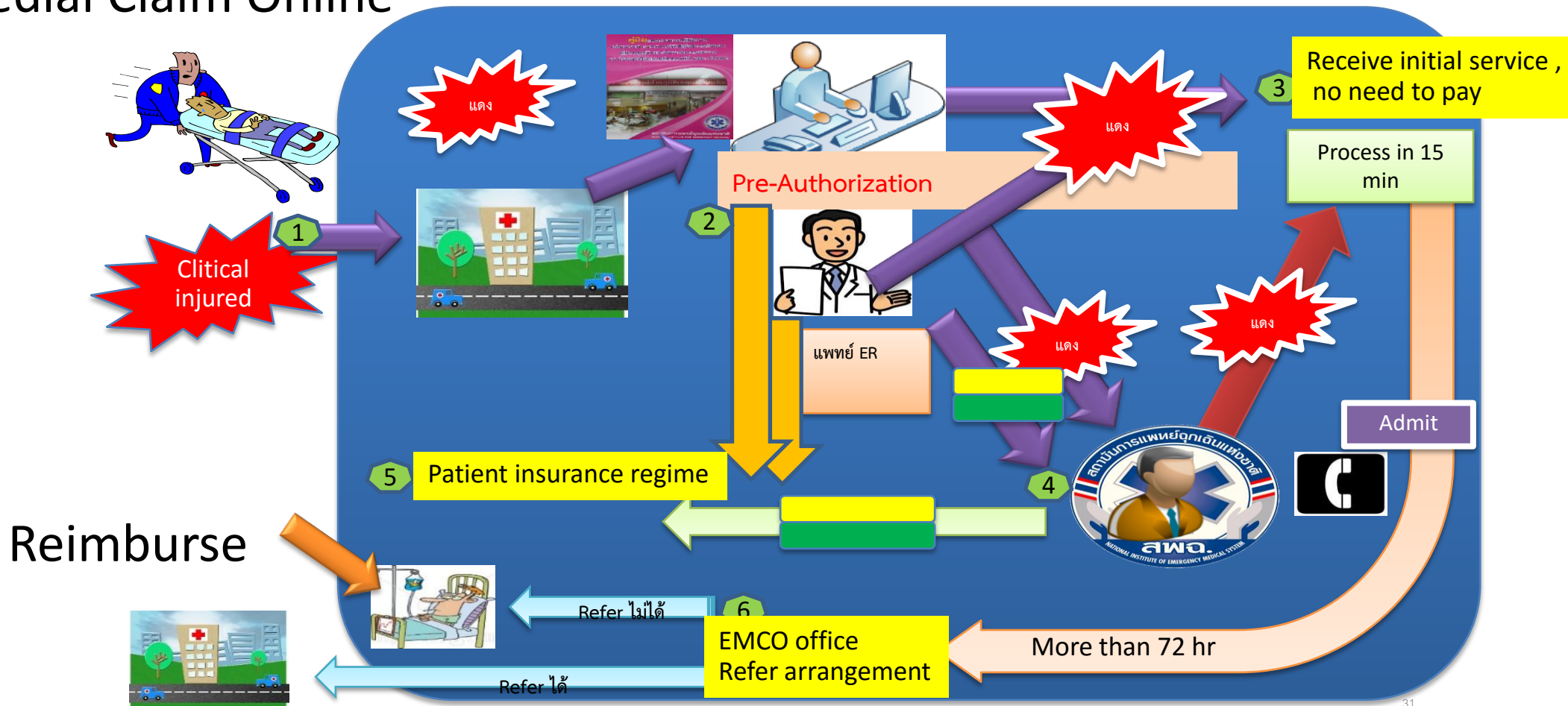
Government officer welfare scheme

Road accident victim protection regime

Private insurance



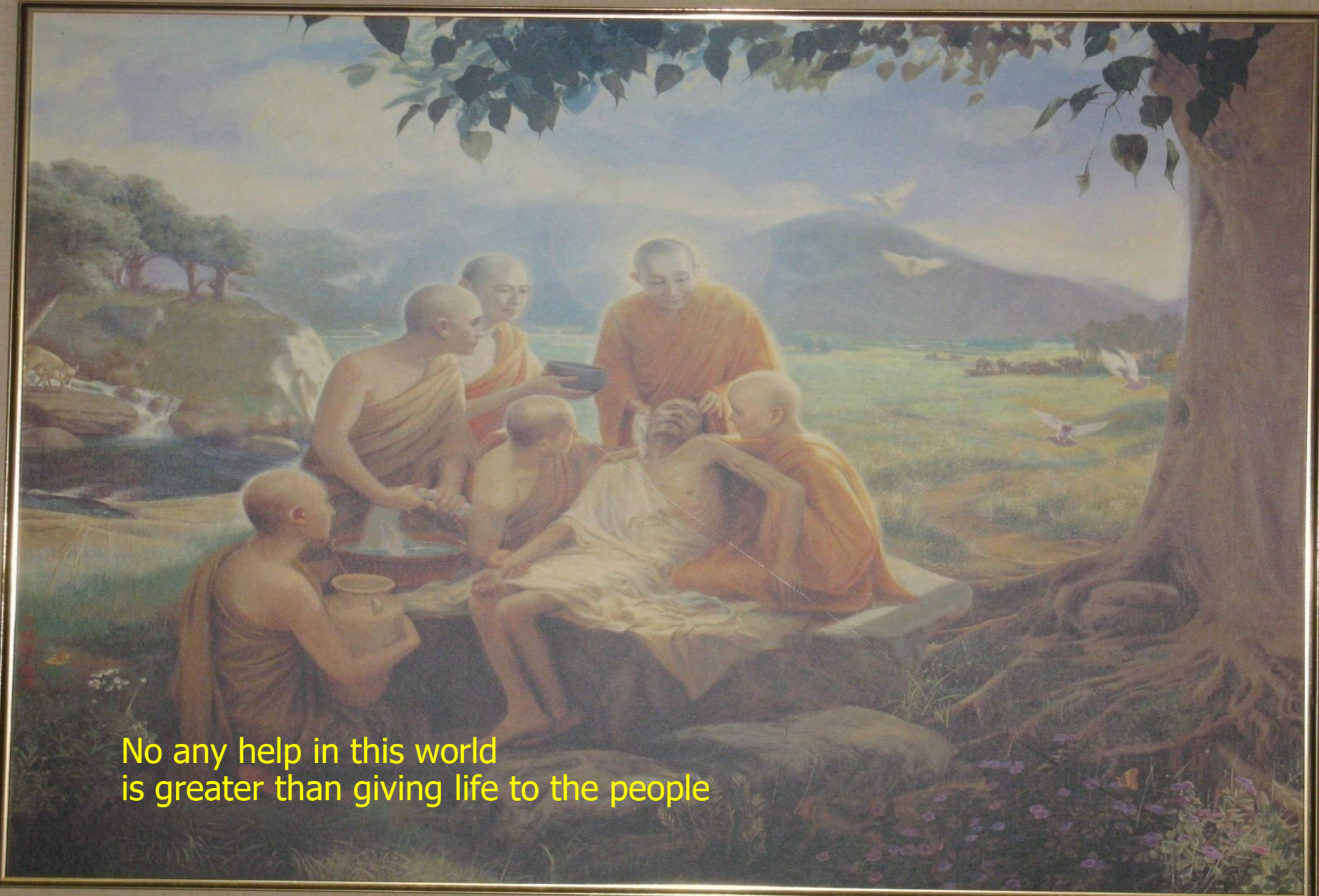
Emergency Medical Claim Online EMCO ,2013



15,000 million USD Economic loss in 2014



Save one life , Safe the world



No any help in this world
is greater than giving life to the people

ဘုရားရှင်တို့၏ နိဗ္ဗာန်ရောက်ရှိမှု
အစောပိုင်း