Vision for 2008

Thailand Center of Excellent Health Care of Asia

Output

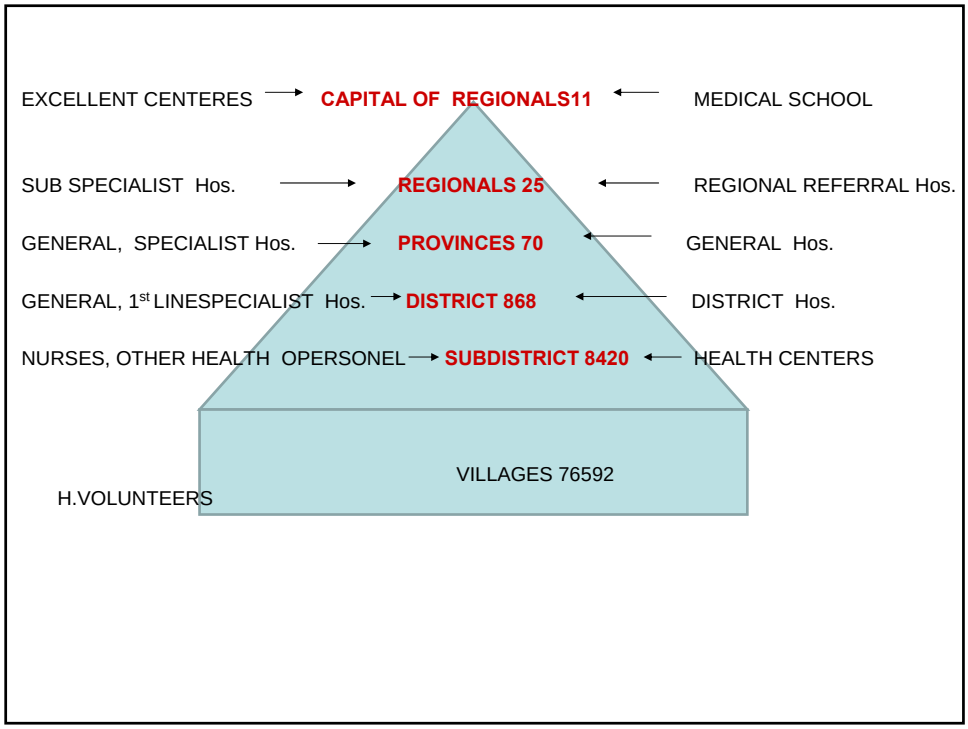
1. **Medical Services**
2. **Health Promotion**
3. **Herbal Products**

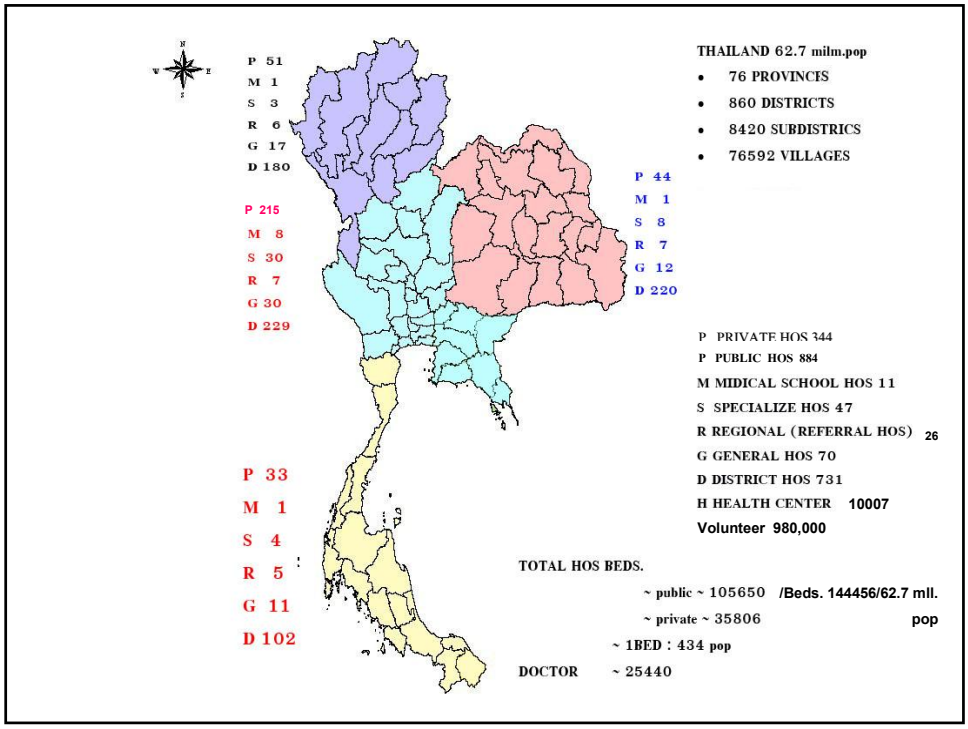
HEALTH SERVICES SYSTEMS (THAI)

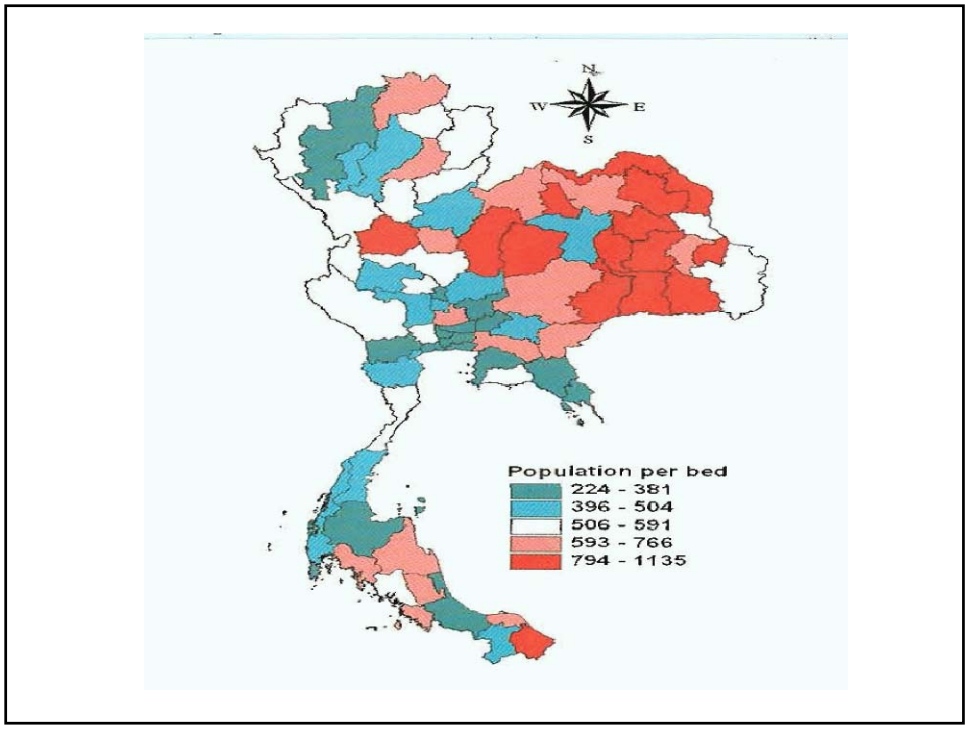
- 63 M.pop = U.C.
- 47 M. - National Health security Schemes By NHSO.
- 10 M. - Social Security Schemes By NSSO
- 6 M. - Civil servants security Schemes By Governments (min.of finance)

GUARANTEE TO ACCESS TO CARE

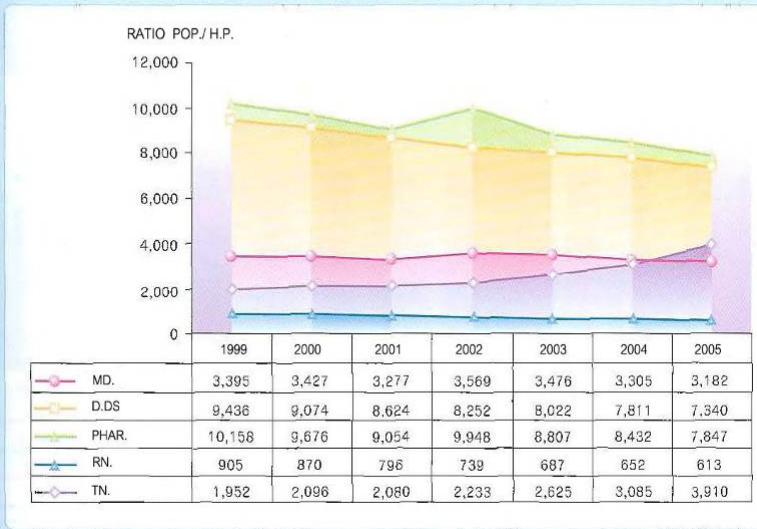
- 1°CARE HEALTH CENTER (5 – 15 min)
- 2°CARE DISTRICT HOS. (10 – 60 min)
- 3° CARE GENERAL HOS. & SPECIALIST (30 – 90 min)
- EXCELLENT CENTERES SUBSPECIALIST HOS. (1.5 – 2.5 hr.)




P 51
M 1
S 3
R 6
G 17
D 180
P 215
M 8
S 30
R 7
G 30
D 229
P 33
M 1
S 4
R 5
G 11
D 102
P 44
M 1
S 8
R 7
G 12
D 220
THAILAND 62.7 milm.pop
• 76 PROVINCES
• 860 DISTRICTS
• 8420 SUBDISTRICS
• 76592 VILLAGES
P PRIVATE HOS 344
P PUBLIC HOS 884
M MIDICAL SCHOOL HOS 11
S SPECIALIZE HOS 47
R REGIONAL (REFERRAL HOS) 26
G GENERAL HOS 70
D DISTRICT HOS 731
H HEALTH CENTER 10007
Volunteer 980,000
TOTAL HOS BEDS.
~ public ~ 105650 /Beds. 144456/62.7 mll.
~ private ~ 35806 pop
~ 1BED : 434 pop
DOCTOR ~ 25440

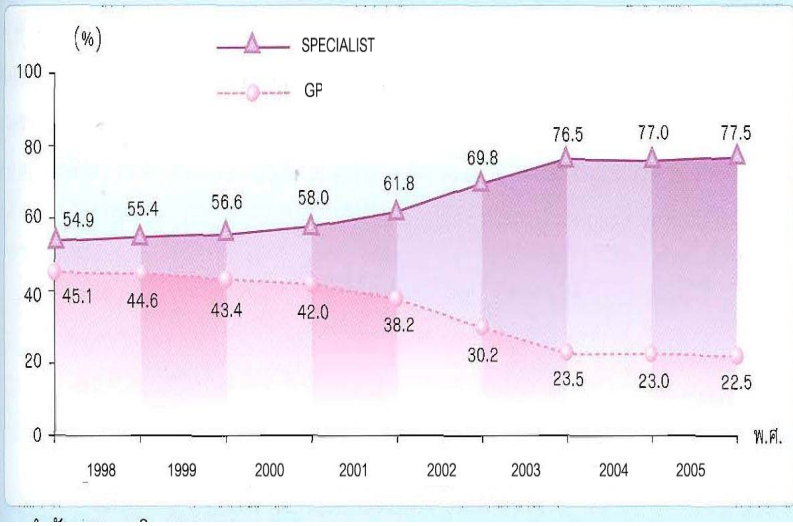

N
W
E
S
Population per bed
224 - 381
396 - 504
506 - 591
593 - 766
794 - 1135

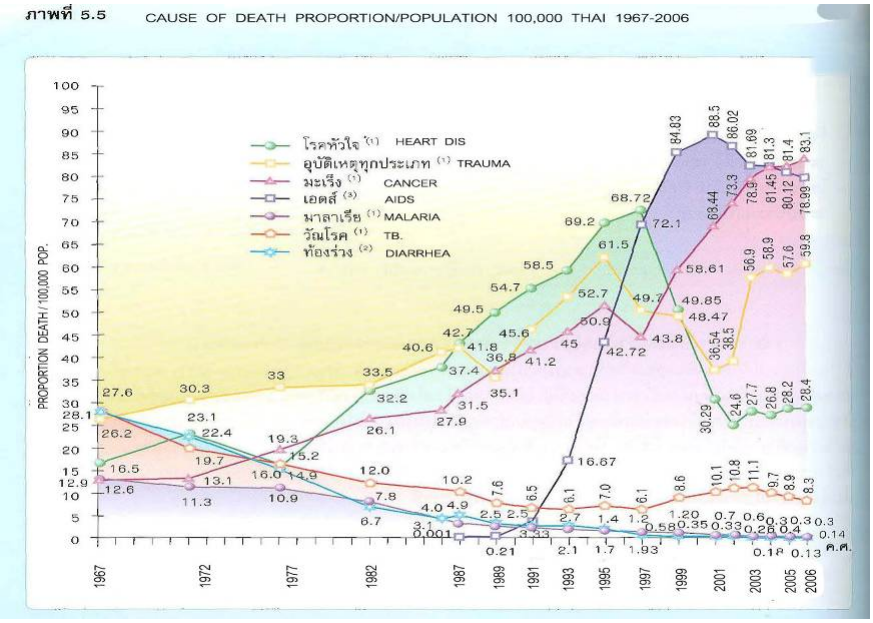
ภาพที่ 6.4 PROPORTION POPULATION : HEALTH PERSONNELS 1999 - 2005



	1999	2000	2001	2002	2003	2004	2005
MD.	3,395	3,427	3,277	3,569	3,476	3,305	3,182
D.DS	9,436	9,074	8,624	8,252	8,022	7,811	7,340
PHAR.	10,158	9,676	9,054	9,948	8,807	8,432	7,847
RN.	905	870	796	739	687	652	613
TN.	1,952	2,096	2,080	2,233	2,625	3,085	3,910

ภาพที่ 6.15 PROPORTION MD(GP.) : MD (SPECIALIST) 1998 - 2006




ภาพที่ 5.5
CAUSE OF DEATH PROPORTION/POPULATION 100,000 THAI 1967-2006
PROPORTION DEATH / 100,000 POP.
โรคหัวใจ (1) HEART DIS
อุบัติเหตุทุกประเภท (1) TRAUMA
มะเร็ง (1) CANCER
เอดส์ (2) AIDS
มาลาเรีย (1) MALARIA
วัณโรค (1) TB.
ท้องร่วง (2) DIARRHEA
ค.ศ.


อุบัติเหตุ ฉุกเฉิน
โรงพยาบาลทองแสนขัน

EMS SCOPE

- RECOGNITION OF EMERGENCY LIFE THREATENING
- TELEPHONE ACCESS, DISPATCH
- PROVISION OF PRE HOSPITAL CARE
  - TRANSPORTATION
  - FIRST AID, SUGGESTION
  - RIGHT METHOD, RIGHT HOSPITAL
- DEFINITIVE CARE IN HOSPITAL
- RESPONSE TO DISASTERS
- MEDICAL COVERAGE AT MASS GATHERING
- INTERFACILITY TRANSFER OF PATIENTS

FACTS IN EMERGENCY DATA

- 150 MILLION OUTPATIENT VISITS IN THAILAND ANNUALLLY
  - ER ~ 13 MILLION VISITS
  - EMERGENCY 28%
  - URGENCY 3%

} ≈ 4 MILLION VISITS

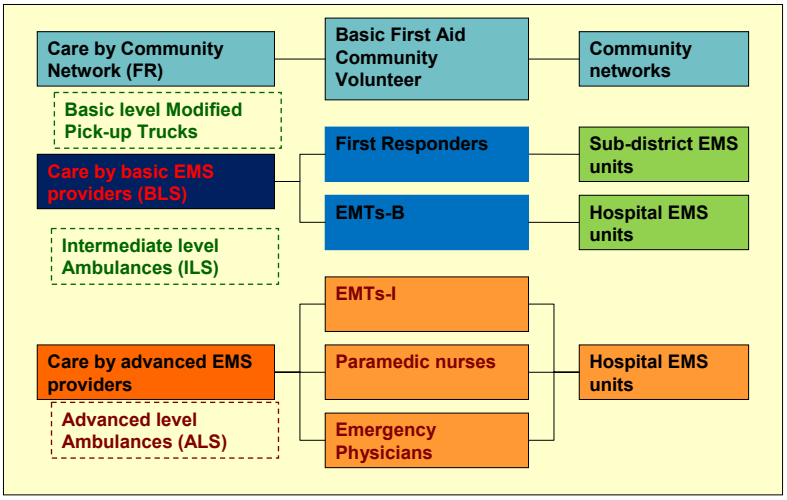

FACTS IN EMERGENCY DATA

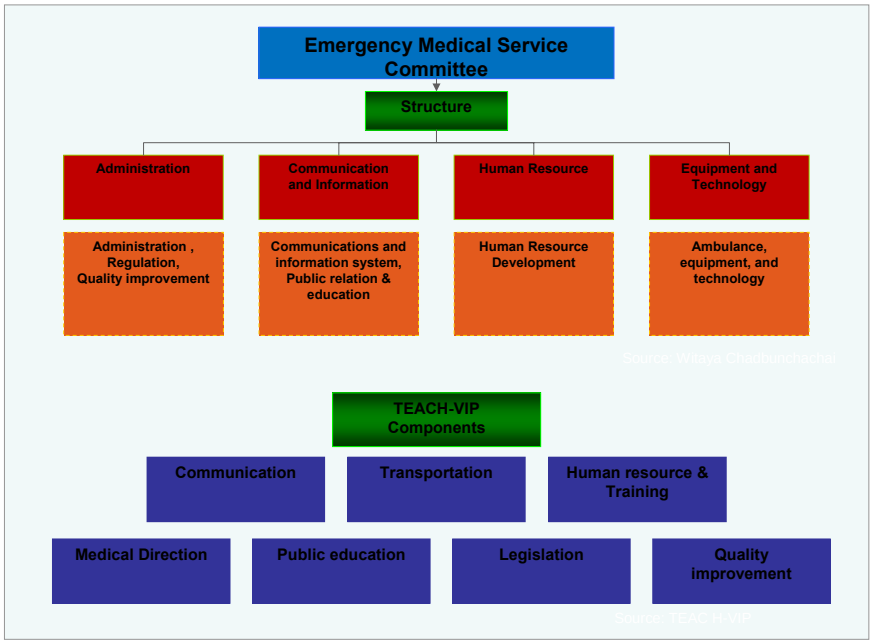
- DEATHS FROM EMERGENCY
  ~ 60,000 / Y
  - 14,000 FROM TRAFFIC ACCIDENTS
  - 13,000 FROM NON TRAFFIC ACCIDENTS
  - ≥ 32,000 FROM EMERGENCY DISEASES

FACTS IN EMERGENCY DATA

- PROJECTED NEEDS OF PREHOSPITAL CARE
  - ~ 4 MILLION / YEAR
- NOW [2008] PROVIDED
  - ~ PHC SERVICES
  - ~ 780,000 /YEAR
  - ~ ONLY 21% OF TOTAL REQUIREMENT

Resources for EMS providers





FR level ambulance,
Sub-district EMS unit

Basic level ambulance,
Hospital EMS unit

Advanced level ambulance,
Hospital EMS unit

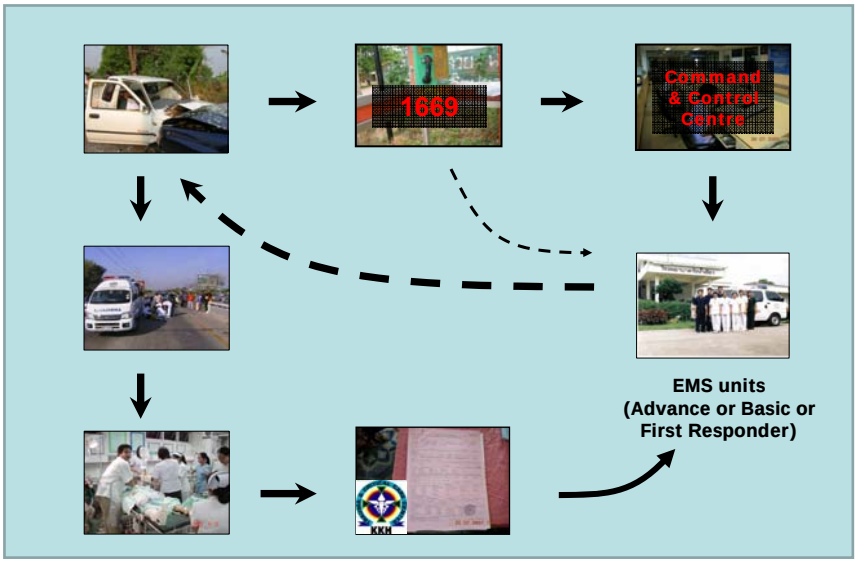
Command and Control Center,
KKRH

Radio Center,
Community Hospital

Radio Center,
Sub-district EMS unit

Radio Receiver,
Ambulance
Mobile radio for individual

Khon Kaen EMSS



TOTAL AMOUT OF VARIOUS TYPE PRE-Hos.

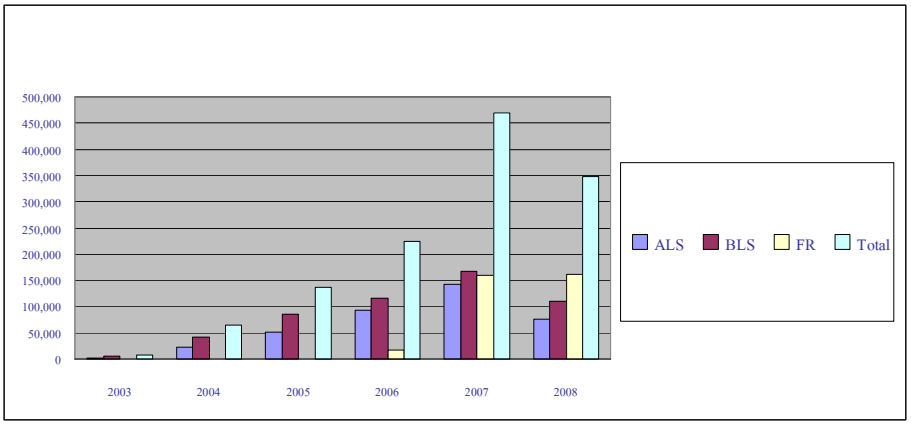
TYPE	TOTAL
ALS	1,018
BLS 1	24
BLS 2	1,293
FR	4,997

DATA ON 20 March 2009

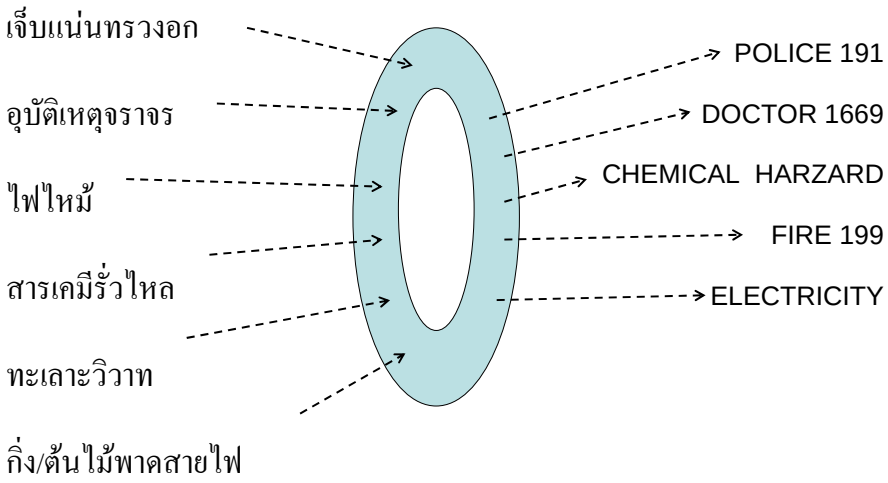
HEALTH PERSONNELS IN PRE-HOS. ON 20 MARCH 2009

TYPE OF PERSONNELS	TOTAL
1. EMERGENCY PHYSICIANS	402
2. GENERAL PHYSICIAN SHORT COURSE TRAINED	1,102
3. Paramedic Nurse	16,873
4. EMT-I	976
5. EMT-B	4,711
6. FR.	69,943
TOTAL	94,010

PERFORMED PRE-HOS CARE
FY 2003-2008



ALL PUBLICS EMERGENCY NUMBER



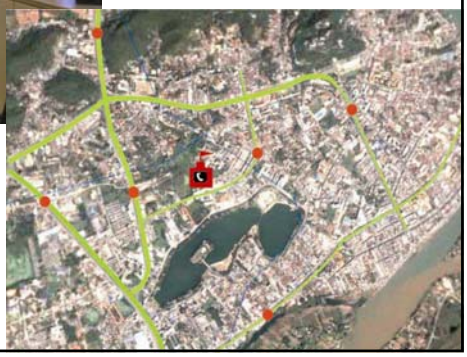
Dispatch: EMS Access

USA.	**9-1-1**
China	**1-2-0**
Hong Kong	**9-9-9**
Australia	**0-0-0**
New Zealand	**1-1-1**
Thailand	**1669**

ALL EUROPE 112

DISPATCH CENTER AND OTHER DEVELOPMENTS

PERSONNEL
COMMUNICATION
MIS
MEDICAL OVERSIGHT
FINANCE
PROTOCALS

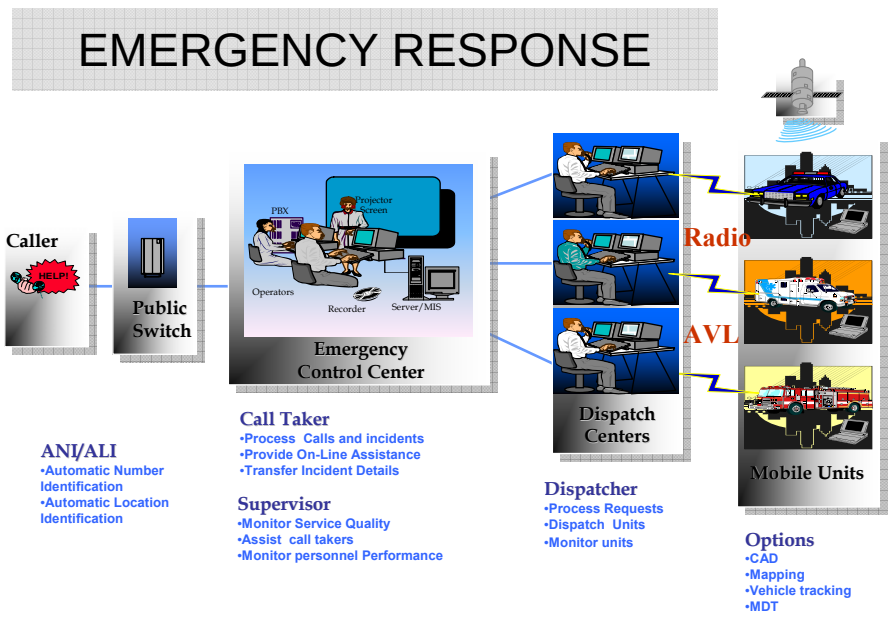


PUBLIC RELATION AND AWARENESS

road side signboards

CO-ORINATION AND COMMUNICATION

EMERGENCY RESPONSE



ANI/ALI
- Automatic Number Identification
- Automatic Location Identification

Call Taker
- Process Calls and incidents
- Provide On-Line Assistance
- Transfer Incident Details

Supervisor
- Monitor Service Quality
- Assist call takers
- Monitor personnel Performance

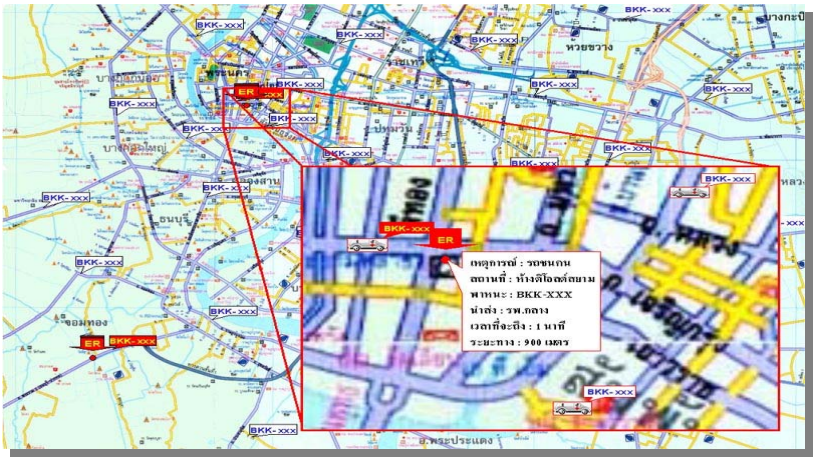
Dispatcher
- Process Requests
- Dispatch Units
- Monitor units

Options
- CAD
- Mapping
- Vehicle tracking
- MDT

30

Control Command Center

Tracking System for our Team



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AEROMEDICAL TRANSPORTATION

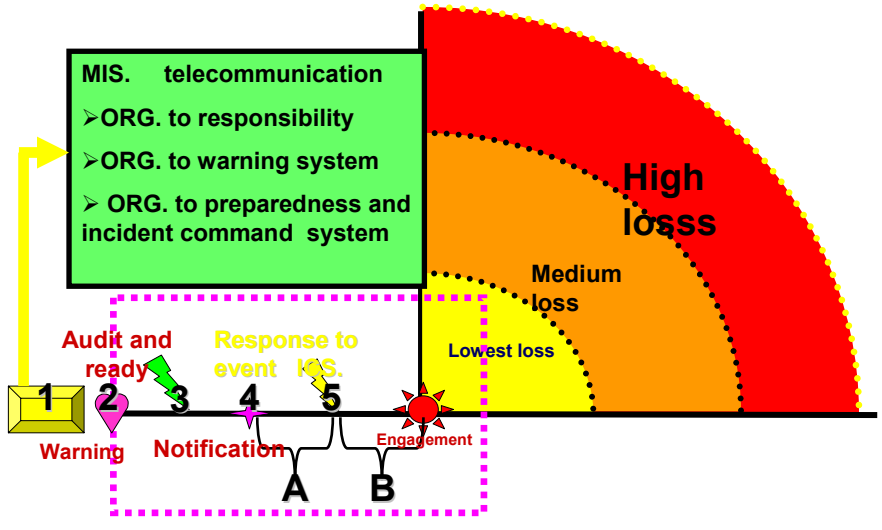
MILITARY ASSIST TRANSPORTATION (MAST PROGRAM)


MILITARIES ASSIST TRANPORTATION PROGRAMS.
(MASTp)
FLY NAVY
นาวาโท คชาเทพ นวมทอง
รองผู้บังคับหมวดบินเฉพาะกิจกองเรือภาคที่ ๓
กองเรือยุทธการ

“Thailand Risk Areas”

Risk chances

Spectrum of Disaster Response



RISKS OF DISASTER IN THAI

- อุทกภัย และดินถล่ม (FLOOD LANDSLIDE)
- ไฟไหม้ สารเคมี สารพิษ FIRE CHEMICAL POISONING
- ไข้หวัดใหญ่(นก)ติดต่อจากคนสู่คนAVIAN FLU. HUMAN. TO HUMAN
- ก่อการร้าย สงคราม WAR TERRORIST

NAVY AMBULANCES


AMBULANCE
Team from P.I.H.

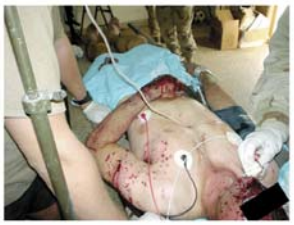

Only The Body

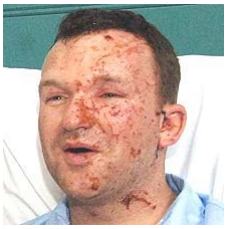

THA
CSES
Waiting

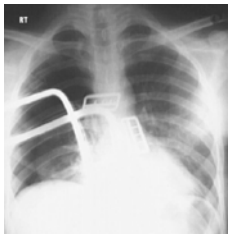

Rest Forever

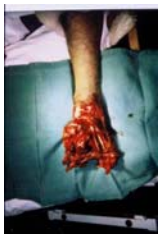

32

TERRORISMS





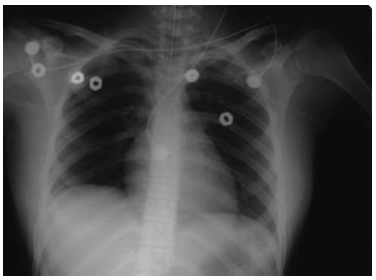
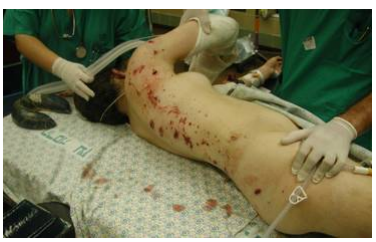






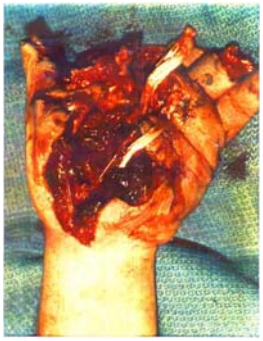
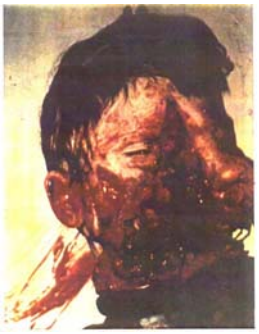
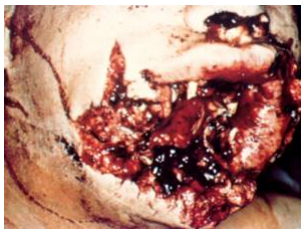
Blast Pathophysiology

- Intentional Shrapnel
- Ball bearings, nuts, bolts, nails etc.
  - Penetrating injuries similar to multiple small arms fire
  - Hundreds of objects may be seen on x-ray
  - Significant internal injuries
    - Objects may enter brain, spinal column
  - Nails enter head first (unlike bullets)
  - Objects are commonly retained in victims
    - Lifetime impairments
    - Long term disabilities

Blast Pathophysiology

- Blast forces and winds
  - Direct tissue trauma

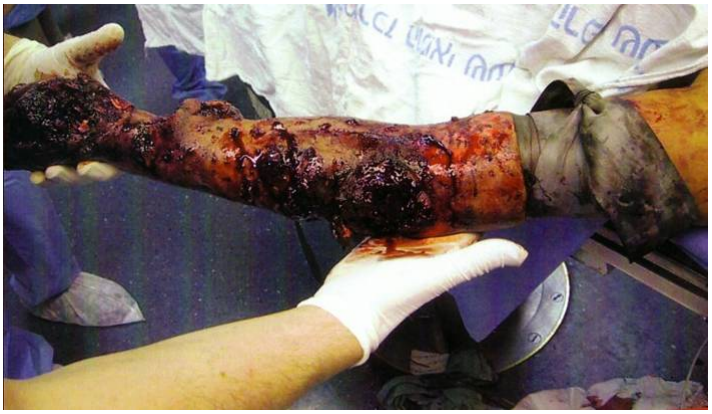




Blast Pathophysiology

- Amputations
- Tourniquet may be necessary

Blast Mechanics
Thermal Burns

– Few victims admitted to burn centers
– Little skin grafting needed



Management of Blast Situations

- Scene operations
  – Evidence preservation

LOCAL GOVERNMENT PROVIDED PRE-HOS. CARE

การดำเนินการให้องค์การปกครองส่วนท้องถิ่น
เป็นผู้ดำเนินการให้บริการการแพทย์ฉุกเฉิน

องค์การบริหารส่วนจังหวัดอุบลราชธานี
๖ ตุลาคม ๒๕๔๙

VOLUNTEERS FOR PRE-HOS. IN RURAL AREA

ตำบลกุดหว้า อำเภอกุฉินารายน์
จังหวัดกาฬสินธุ์

EMS IN THAI

RISKS

ขึ้นกับพัฒนาการของความสัมพันธ์เหล่านี้

ACCIDENTS
BURN
FALLING
OB-GYN
BLEEDING
TOXICOLOGY
ENT
DROWNING
CONVULSION
CARDIAC
PHYCHIATRY
EMERGENCY in MEDICINES
DISASTER

EMD
SERVICE
COMMUNICATION

ALS
BLS
FR

Standing order
Medical protocol
(Medical Director)
ER DOCTORS
TOXICOLOGY
MIS DRUGS
CARDIAC CENTER
DRUG ADDICTION
PHER.

การประชาสัมพันธ์และสร้างเครือข่าย

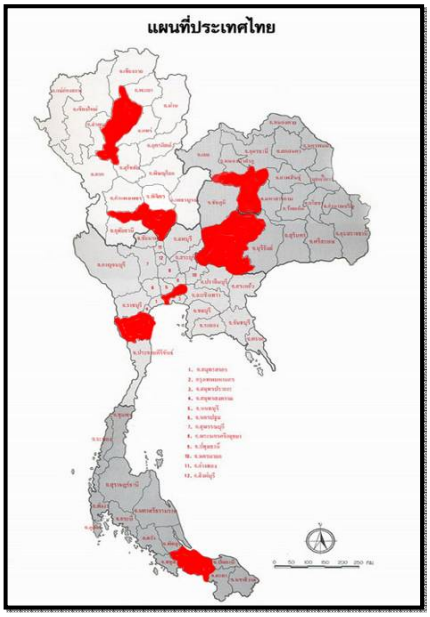
LAW, REGULATIONS

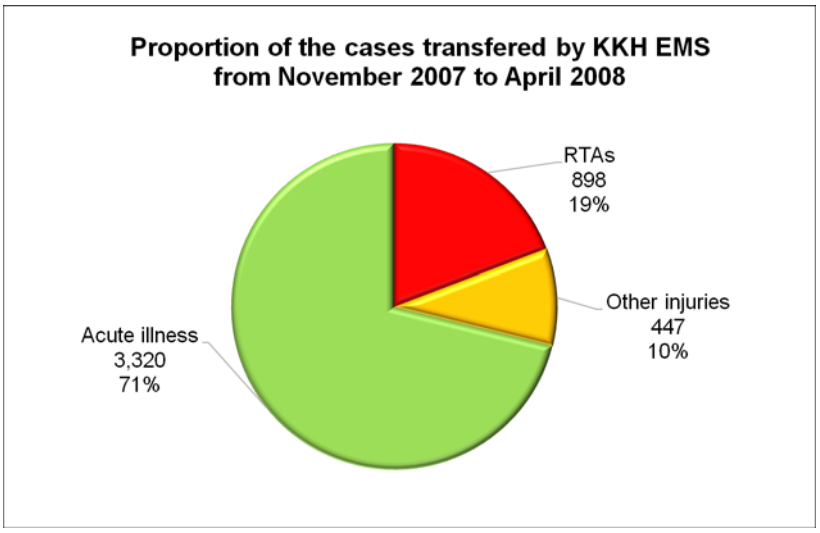
Mechanism used in developing KK EMS

Evaluation and assessment

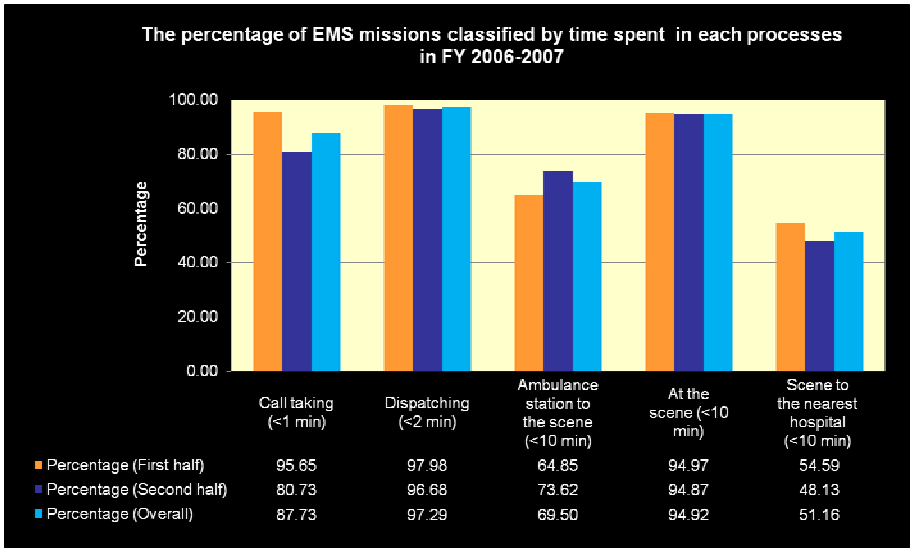
MoPH executives agreed to establish the EMS system for the whole country in 2001.

It was implemented in 7 leading provinces including Petchaburi, Nakornsawan, Khon Kaen, Bangkok, Lampang, Korat and Songkla.

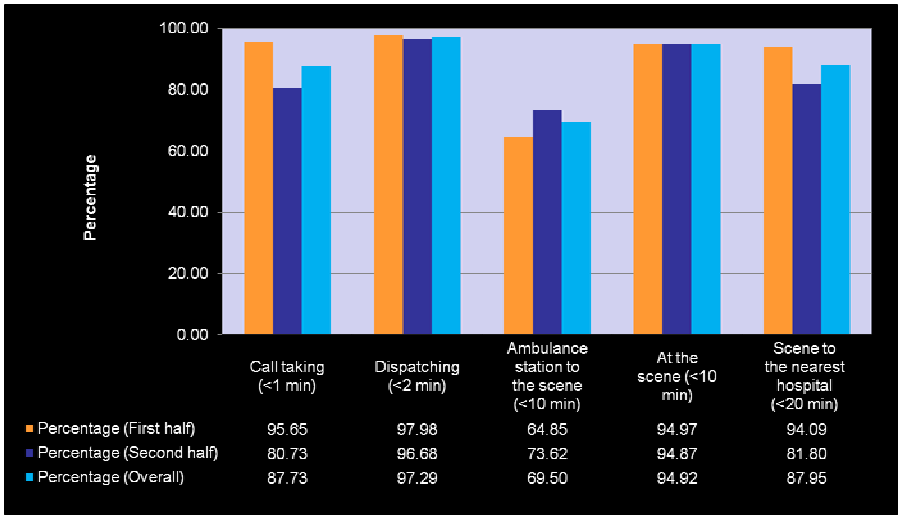




Source: Khon Kaen Hospital Database



Source: Khon Kaen Hospital Database



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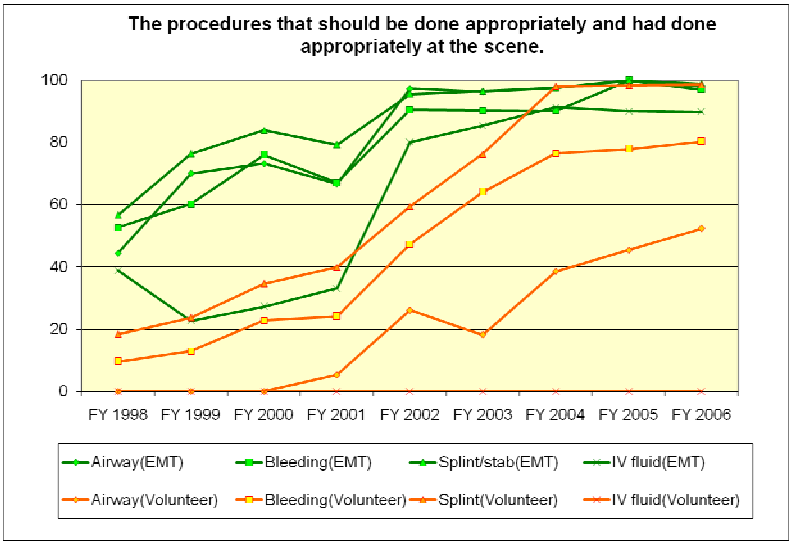

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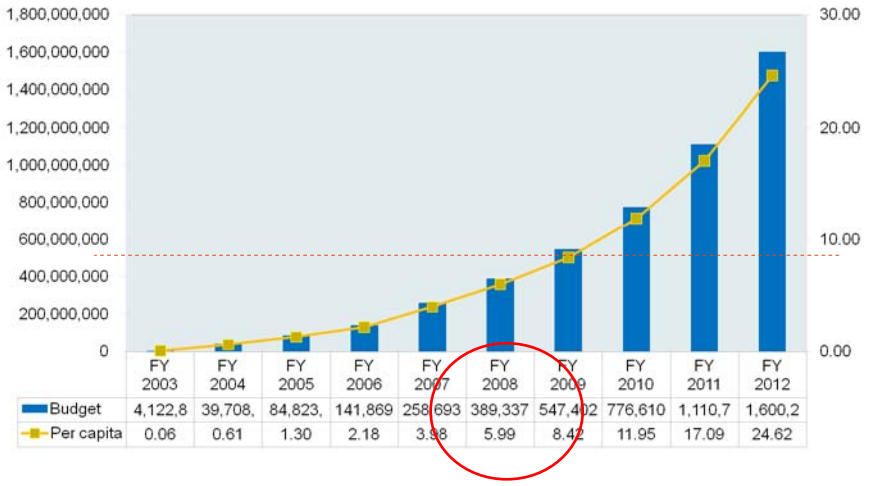
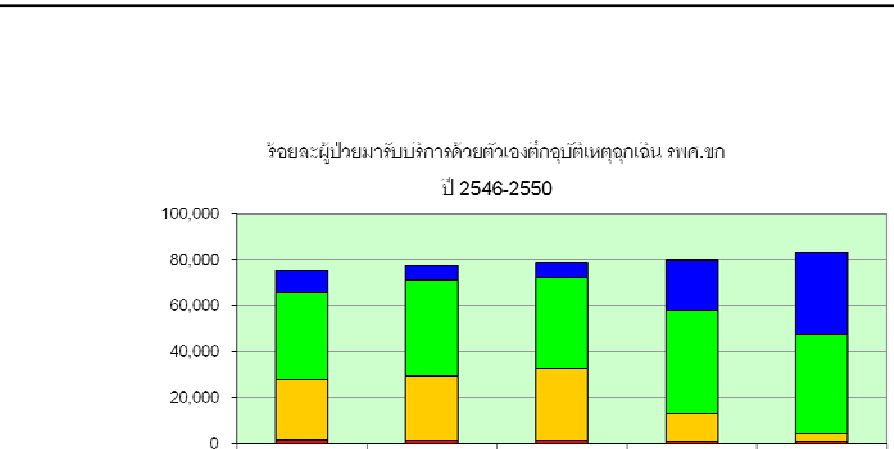
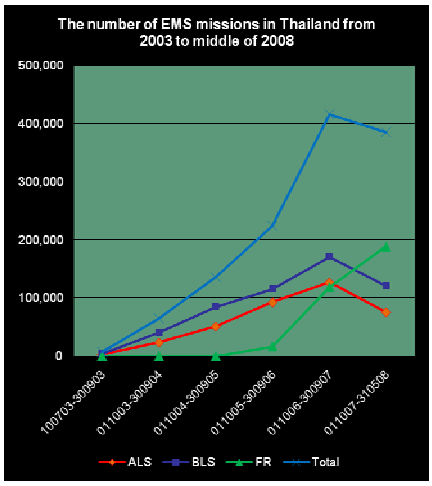


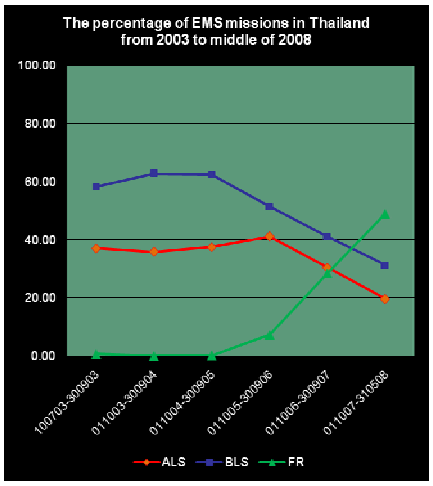
	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Budget	4,122,8	39,708,	84,823,	141,869	258,693	389,337	547,402	776,610	1,110,7	1,600,2
Per capita	0.06	0.61	1.30	2.18	3.98	5.99	8.42	11.95	17.09	24.62



	ปี 2546	ปี 2547	ปี 2548	ปี 2549	ปี 2550
Non-urgent	9,690	6,242	6,334	22,133	35,808
Urgent	37,971	41,875	39,777	44,746	43,057
Emergent	26,363	28,123	31,264	12,105	3,560
Resuscitative	1,487	1,415	1,323	1,050	912

National EMS situations

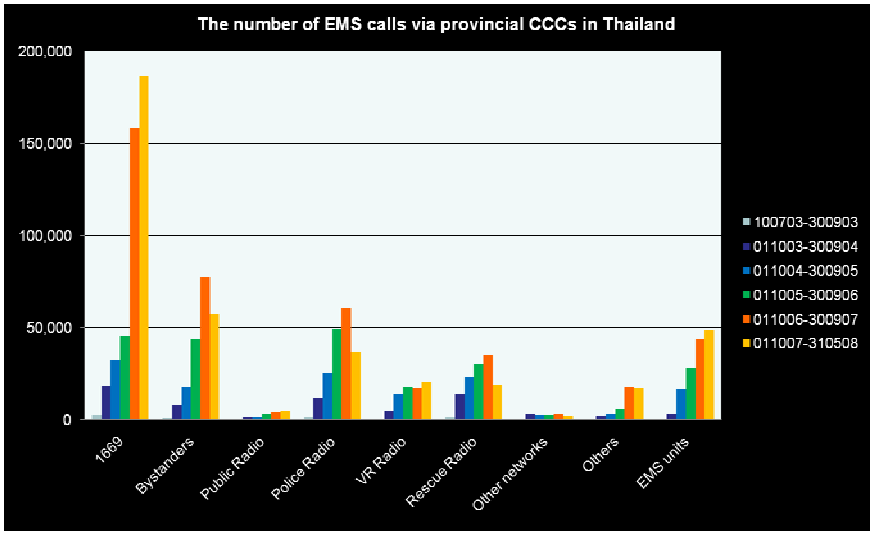




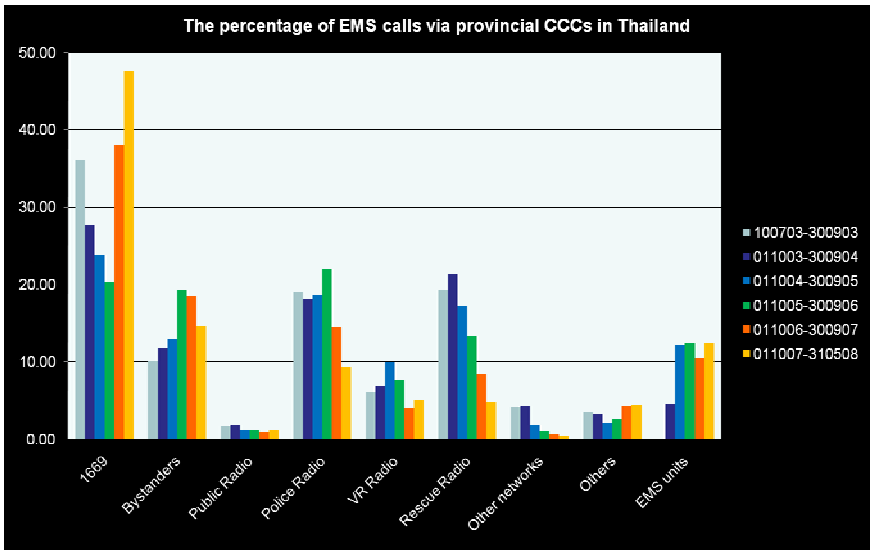
Source: Narendhorn Center

INCIDENT VICTIMS(MINE)
IN 5 YEARS(source . TMAC)

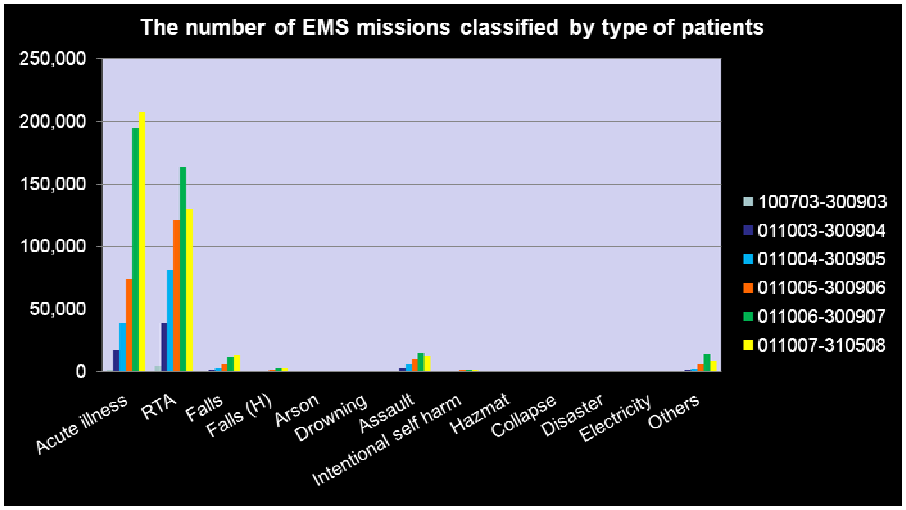
	INJURIES(case)	DEAD(case)
2003	42	N/A
2004	39	4
2005	37	1
2006	22	1
2007	8	0
2008	10	2



Source: Narendhorn Center



Source: Narendhorn Center



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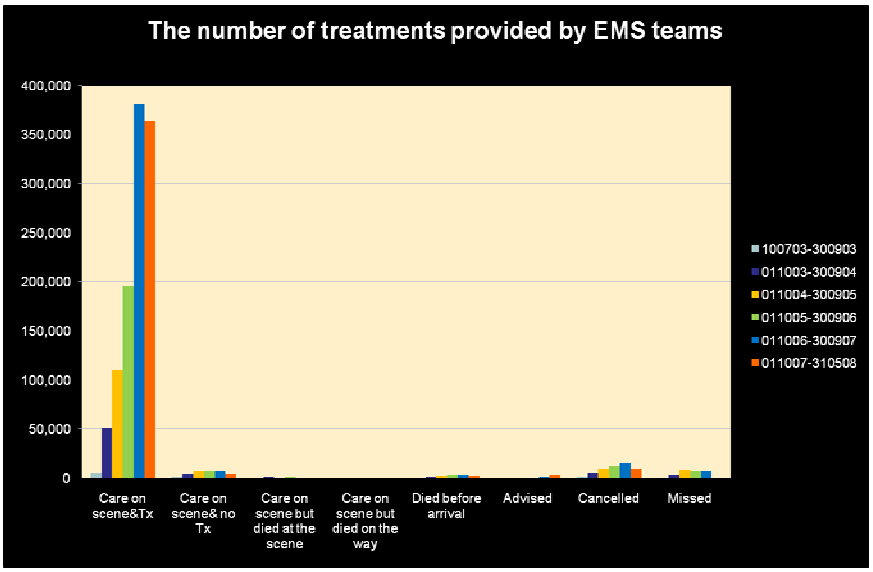

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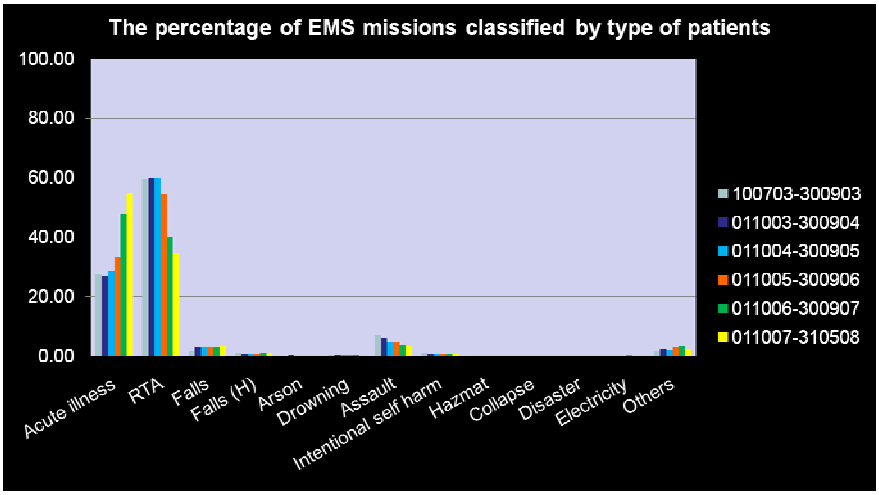

Source: Narendhorn Center

Star of Life

Detection

Transfer to Definitive Care

Report

Care in Transit

Response

On Scene Care