

Indicator of Implementation as the Project for Development of Trauma Center Complex 2001

Output 1 Trauma Service

Activities	Process	Output	Effect	Impact
RM	<ul style="list-style-type: none"> * Set up committee * Committee meeting * Set up system of RM report/petition * Analyze the direction of prevention and improvement 	<ul style="list-style-type: none"> * Committee.....1.....times * Committee meeting...4.....times * RM report.....-.....cases * Suggestion of improvement.....-.....cases 	<ul style="list-style-type: none"> * Report system improved.....-.....cases 	<ul style="list-style-type: none"> * Mortality rate as severity * Patients Satisfaction
Communication System	<ul style="list-style-type: none"> * Set up efficient communication system * Produce the communication handbook * Related person meeting 	<ul style="list-style-type: none"> * Committee meeting.....3.....times * Communication guideline.1..unit * Meeting.....2.....times 	<ul style="list-style-type: none"> * Responds rate of doctor 	<ul style="list-style-type: none"> * Mortality rate as severity
Revise Trauma Guideline	<ul style="list-style-type: none"> * Set up committee * Meeting to reviewing guideline * Assigning job 	<ul style="list-style-type: none"> * Committee1team * Meeting3....times * Guideline.....2....units 		<ul style="list-style-type: none"> * Mortality rate as severity

Activities	Process	Output	Effect	Impact
	<ul style="list-style-type: none"> * Meeting for establishing the guideline * Editing * Publishing * Doctor meeting to perform * Evaluation 			
Referral System	<ul style="list-style-type: none"> * Set up system of personnel development * Set up system of communication, coordination * Set up system of service development during referral 	<ul style="list-style-type: none"> * Academic meeting2.....times...100...persons * Personnel supervision .. timespersons * Field supervision.....5 times * Annual academic conference1.....times.....20..persons * Produce guideline.....2.....units * Notify before referral ..3554 ..times * Inform back the result of referral-.....hospitals....-.....times 	<ul style="list-style-type: none"> * Referral pitfalls <ul style="list-style-type: none"> Airway% Splint/Slab.....% IV Fluid.....% Stop Bleeding..% * Referral by ambulance.....% * Referral by other person% 	<ul style="list-style-type: none"> * Mortality rate by severity

Activities	Process	Output	Effect	Impact
MIS	<ul style="list-style-type: none"> * Set up committee * Committee meeting * Produce ER Program * Set up information flowing system * Set up the responsible person for data recording * Produce the annual report 	<ul style="list-style-type: none"> * Committee1..... team * Committee meeting.....4....times * Software program...1.....program * Responsible person of data recording.....6.....persons * Annual report.....-.....reports 	<ul style="list-style-type: none"> * Report of data analysis...items 	<ul style="list-style-type: none"> * Data utility for development of service system.....items
MC	<ul style="list-style-type: none"> * Set up committee * Produce mass casualty plan * Trial the mass casualty plan * Preparedness for equipment, place, supporting system 	<ul style="list-style-type: none"> * Committee.....1.....team * Committee meeting...2.....times * Plan trial.....1.....times * Checking for preparedness inspection.....4.....times/month 	<ul style="list-style-type: none"> • Pitfalls detected during practice...3.....items 1. communication and commander , 2. Triage 3. traffic regulation at the scene) 	<ul style="list-style-type: none"> * Pitfalls detected during actual event.....-.....items

Output 2 EMS

Activities	Process	Output	Effect	Impact
Public Relation * Promotion of 1669	* Public relation by all kinds of media	* Newspaper.....-.....times * Radio.....-.....times * Television.....-.....times * Community leaders training2.....time s * Poster.....-.....times * School....17....schools 32 public sectors 16 hotels 21 restaurants 2 Banks, 5 shopping malls 6 public relation stations 1 temple		* People call...2266 .times
* First Aid	* Set up training	* Set up training.....2.....times * Number of participant 53 persons	* Training overspread people who knows First Aid.....-.....% * Trainees who have knowledge of First Aid average.....-.....%	* Patient care at scene of people correct.....-.....%%
EMS Guideline	* Study the service information of EMT and NGOs	* Produce guideline of NGOs 1...items * Produce guideline of EMT 1 ..items	* Knowledge and attitude of EMT.....% NGOs.....%	* Pitfalls of first aid carried out by EMT.....% NGOs..... ...%

Output 3 Prevention of Traffic Injury Promoted

Activities	Process	Output	Effect	Impact
<p>1. Public Relation 1.1 Media production</p>	<ul style="list-style-type: none"> * Produce article on radio/newspaper * Product radio spot "Don't drive drunk" * Produce campaign cassette "Don't drive drunk" * Product program of injury prevention campaign on radio Monday-Friday 30 minutes/day * Product campaign banner * Product pamphlet * Product leaflet * Produce cassette tape * Produce cassette VDO 	<ul style="list-style-type: none"> * Card 1669.....20,000 copies * Number of article that distributed to mass media: radio/newspaper...50 .copies * Number of media that distributed.....50...copies * Number of radio on air240.....times * Campaign banner.15pieces * Pamphlet 180,000 .pieces * Leaflet...-....sheets * Sticker.....-.....pieces * Campaign tape cassette <ul style="list-style-type: none"> • 250 copies * Produce VDO 2 units 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (58.3%) and passenger (37.5%) * Seat belt fasten rate of driver (42.6%) and passenger who sit beside driver (31.2%) 	<ul style="list-style-type: none"> * Traffic injury rate 1204.54/ 100 thousand * Morbidity of traffic injury caused of drunk 33.56 % * Mortality of traffic injury caused of drunk 18.42 / 100 thousand

Activities	Process	Output	Effect	Impact
1.2 Information Public Relation	<ul style="list-style-type: none"> * Meeting with the press * Training of driver * Training of public relation to hospital personnel 	<ul style="list-style-type: none"> * To give information by mass media ...3.....times 		
2. Force to conduct as regulation by Khon Kaen Safety Committee	<ul style="list-style-type: none"> * Committee meeting * Monthly report for traffic injury * Survey helmet wearing and fasten seat belt of rider and driver 	<ul style="list-style-type: none"> * Committee meeting...12..time participant...50.persons/time * Statistics of injured person/died from traffic injury per month * Survey helmet wearing and fasten seat belt...1 .time/ year * Fine given to driver without seat belt fastened..1225..persons * Fine given to rider without helmet usage...20552...persons * Fine given to violator on traffic regulation...102..persons 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (58.3%) and passenger (37.5%) * Seat belt fasten rate of driver (42.6%) and passenger who sit beside driver (31.2%) 	<ul style="list-style-type: none"> * Morbidity of traffic injury caused of drunk (33.56%) * Mortality of traffic injury 18.42 / 100 thousand

Activities	Process	Output	Effect	Impact
3. Project for prevention and control the injury in school	<ul style="list-style-type: none"> * Committee meeting * Training of traffic boy scout 	<ul style="list-style-type: none"> * Committee meeting...3...times * Training of traffic boy scout.....1.....times * Number of schools taking Study tour at Khon Kaen Hospital.....12.....schools * Number of students participating on study tour1200.....persons * Number of students participating the training of safety riding to student700...persons 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (58.3%) and passenger (37.5%) * Seat belt fasten rate of driver (31.2%) and passenger who sit beside driver (42.6%) 	<ul style="list-style-type: none"> * Traffic injury rate in each school
4. Traffic injury prevention project in community	<ul style="list-style-type: none"> * Training of volunteer and community leader about traffic injury prevention and study tour at Trauma Center Khon Kaen Hospital 	<ul style="list-style-type: none"> * Volunteer participated 150 persons * Campaign of injury prevention in community - Lund-speaker about traffic injury prevention in community...400...communities 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (58.3%) and passenger in municipality (37.5%) * Seat belt fasten rate of driver (31.2%) and passenger who sit beside driver in municipality (42%) 	<ul style="list-style-type: none"> * Morbidity from traffic injury in municipality Khon Kaen 4280.4 / 100 thousand * Mortality from traffic injury in Khon Kaen municipality (37.4 / 100 thousand)

Activities	Process	Output	Effect	
5. Traffic injury prevention campaign during festival	* Set the traffic injury prevention campaign during festival	* Set the traffic injury prevention campaign during festival...2.....times (New year and Thai New year)	* Helmet wearing rate (1.3%) * Seat belt fasten rate (46.5 %) * Alcohol drinking rate (40.2 %) (During festival)	* Traffic injury rate during festival Morbidity rate/ Mortality rate New year festival 61.7/ 1.2 100 thousand Thai New year 54.6 / 1.4 100 thousand
6. "Don't drive drunk" project	* To give information "Don't drive drunk" project * Set up the parade of campaign * Set up the alcohol check point during festival	* To give information "Don't drive drunk" project...3...times * Set up the parade of campaign.....-.....times * Number of vehicle on parade.....-.....units	* Alcohol in blood of driver...24.5....% of all person tested	* Morbidity from traffic injury in municipality 4280.4 / 100 thousand * Mortality from traffic injury in municipality 37.4 / 100 thousand

Output 4 Training

Activities	Process	Output	Effect	Impact
4.1 Training of EMT, EMS, RN	* Training of nurse Pre-hospital care * Training of EMT * Training of first responder	* Training.....46.....times * Participant...1297.....persons	* Personnel conduct as guideline.....%	* Survival rate of cardiac arrest patient in hospital.....%
4.2 Training of Life Support	* Training of personnel 100%			

Output 4 Research

Activities	Process	Output	Effect	Impact
KKH Injury Research Center	* Meeting/training of related research knowledge * Research working	* Research meeting..3.times * Participant...150..persons * Number of research1.....cases	* Number of research published	* Number of research publication * Number of research presented in academic forum

Output 5 Generalization

Activities	Process	Output	Effect	Impact
5.1 National Conference on traffic accident prevention and control	<ul style="list-style-type: none"> * Produce project * Produce program * Invite lecturer * Prepare meeting 	<ul style="list-style-type: none"> * National seminar1.....time/year * Participant634...persons 	<ul style="list-style-type: none"> * Participant - Understanding.....% - Satisfaction.....% 	<ul style="list-style-type: none"> * The model had been generalized by other provincesprovinces
5.2 Produce and distribute report	<ul style="list-style-type: none"> * Produce textbook, journal * Distribute report 	<ul style="list-style-type: none"> * Produce textbook14.units * Distribute document650.....cases * Present report...3...times * Lecture.....17.....times 	<ul style="list-style-type: none"> * Reference of project outcome.....times 	<ul style="list-style-type: none"> * The model had been generalized by other provincesprovinces

Indicator of Implementation as the Project for Development of Trauma Center Complex 2002

Output 1 Trauma Service

Activities	Process	Output	Effect	Impact
RM	<ul style="list-style-type: none"> * Set up committee * Committee meeting * Set up system of RM report/ petition * Analyze the direction of prevention and improvement 	<ul style="list-style-type: none"> * Committee.....1.....times * Committee meeting...4.....times * RM report.....400.....cases * Suggestion of improvement.....400.....cases 	<ul style="list-style-type: none"> * Report system improved.....cases 	<ul style="list-style-type: none"> * Mortality rate as severity * Patients Satisfaction
Communication System	<ul style="list-style-type: none"> * Set up efficient communication system * Produce the communication handbook * Related person meeting 	<ul style="list-style-type: none"> * Committee meeting.....3....times * Communication guideline...unit 	<ul style="list-style-type: none"> * Responds rate of doctor 	<ul style="list-style-type: none"> * Mortality rate as severity
Revise Trauma Guideline	<ul style="list-style-type: none"> * Set up committee * Meeting to reviewing guideline * Assigning job 	<ul style="list-style-type: none"> * Committee1....team * Meeting2....times * Guideline.....-....units 		<ul style="list-style-type: none"> * Mortality rate as severity

Activities	Process	Output	Effect	Impact
	<ul style="list-style-type: none"> * Meeting for establishing the guideline * Editing * Publishing * Doctor meeting to perform * Evaluation 			
Referral System	<ul style="list-style-type: none"> * Set up system of personnel development * Set up system of communication, coordination * Set up system of service development during referral 	<ul style="list-style-type: none"> * Academic meeting2.....times...50...persons * Personnel supervision .. timespersons * Field supervision.....-.. times * Annual academic conference1.....times.....25..persons * Produce guideline.....-.....units * Notify before referral..4384 ..times * Inform back the result of referral-.....hospitals.....-.....times 	<ul style="list-style-type: none"> * Referral pitfalls <ul style="list-style-type: none"> Airway.....% Splint/Slab.....% IV Fluid.....% Stop Bleeding..% * Referral by ambulance.82.7 % * Referral by other person% 	<ul style="list-style-type: none"> * Mortality rate by severity

Activities	Process	Output	Effect	Impact
MIS	<ul style="list-style-type: none"> * Set up committee * Committee meeting * Produce ER Program * Set up information flowing system * Set up the responsible person for data recording * Produce the annual report 	<ul style="list-style-type: none"> * Committee1..... team * Committee meeting.....4....times * Software program...1.....program * Responsible person of data recording.....6.....persons * Annual report.....1.....reports 	<ul style="list-style-type: none"> * Report of data analysis...items 	<ul style="list-style-type: none"> * Data utility for development of service system.....items
MC	<ul style="list-style-type: none"> * Set up committee * Produce mass casualty plan * Trial the mass casualty plan * Preparedness for equipment, place, supporting system 	<ul style="list-style-type: none"> * Committee.....1.....team * Committee meeting...2.....times * Plan trial.....1.....times * Checking for preparedness inspection.....4.....times/month * Produce guideline for EMT in Disaster situation.....1 report 	<ul style="list-style-type: none"> * Pitfalls detected during practice.....1.....items 1. communication and commander , 	<ul style="list-style-type: none"> * Pitfalls detected during actual event.....-.....items

Output 2 EMS

Activities	Process	Output	Effect	Impact
Public Relation * Promotion of 1669	* Public relation by all kinds of media	* Newspaper.....-.....times * Radio.....times * Television.....-.....times * Community leaders training-times * Poster.....-times * School....-schools		* People call...3084 .times
* First Aid	* Set up training	* Set up training.....1.....times * Number of participant 50 persons	* Training overspread people who knows First Aid.....-% * Trainees who have knowledge of First Aid average.....-%	* Patient care at scene of people correct.....-%
EMS Guideline	* Study the service information of EMT and NGOs	* Produce guideline of NGOs .-....items * Produce guideline of EMT 1. ...items	* Knowledge and attitude of EMT.....% NGOs.....%	* Pitfalls of first aid carried out by EMT.....% NGOs..... ...%

Output 3 Prevention of Traffic Injury Promoted

Activities	Process	Output	Effect	Impact
<p>1. Public Relation 1.1 Media production</p>	<ul style="list-style-type: none"> * Produce article on radio/newspaper * Product radio spot "Don't drive drunk" * Produce campaign cassette "Don't drive drunk" * Product program of injury prevention campaign on radio Monday-Friday 30 minutes/day * Product campaign banner * Product pamphlet * Product leaflet * Produce cassette tape * Produce cassette VDO 	<ul style="list-style-type: none"> * Number of article that distributed to mass media: radio/newspaper...50 .copies * Number of media that distributed.....50...copies * Number of radio on air240.....times * Campaign banner.15pieces * Pamphlet 135,000 .pieces * Leaflet...20,000.....sheets * Sticker.....30,000...pieces * Campaign tape cassette 400 copies * TV Board casting 2 times 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (59.6%) and passenger (35.7%) * Seat belt fasten rate of driver (41.1%) and passenger who sit beside driver (39.7%) 	<ul style="list-style-type: none"> * Traffic injury rate 1257.54/ 100 thousand * Morbidity of traffic injury caused of drunk 31.7 % * Mortality of traffic injury caused of drunk 17.75 / 100 thousand

Activities	Process	Output	Effect	Impact
1.2 Information Public Relation	<ul style="list-style-type: none"> * Meeting with the press * Training of driver * Training of public relation to hospital personnel 	<ul style="list-style-type: none"> * To give information by mass media ...3.....times 		
2. Force to conduct as regulation by Khon Kaen Safety Committee	<ul style="list-style-type: none"> * Committee meeting * Monthly report for traffic injury * Survey helmet wearing and fasten seat belt of rider and driver 	<ul style="list-style-type: none"> * Committee meeting...12..time participant...50.persons/time * Statistics of injured person/died from traffic injury per month * Survey helmet wearing and fasten seat belt...1 .time/ year * Fine given to driver without seat belt fastened..3200..persons * Fine given to rider without helmet usage...75028...persons * Fine given to violator on traffic regulation...131..persons 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (59.6%) and passenger (35.7%) * Seat belt fasten rate of driver (41.1%) and passenger who sit beside driver (39.7%) 	<ul style="list-style-type: none"> * Traffic injury rate 1257.54 /100 thousand * Morbidity of traffic injury caused of drunk (31.7%) * Mortality of traffic injury 17.75 / 100 thousand

Activities	Process	Output	Effect	Impact
3. Project for prevention and control the injury in school	<ul style="list-style-type: none"> * Committee meeting * Training of traffic boy scout 	<ul style="list-style-type: none"> * Committee meeting...3...times * Training of traffic boy scout.....1.....times * Number of schools taking Study tour at Khon Kaen Hospital.....10.....schools * Number of students participating on study tour1000.....persons * Number of students participating the training of safety riding to student500...persons 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (59.6%) and passenger (35.7%) * Seat belt fasten rate of driver (41.1%) and passenger who sit beside driver (39.7%) 	<ul style="list-style-type: none"> * Traffic injury rate in each school
4. Traffic injury prevention project in community	<ul style="list-style-type: none"> * Training of volunteer and community leader about traffic injury prevention and study tour at Trauma Center Khon Kaen Hospital 	<ul style="list-style-type: none"> * Volunteer participated 250 persons * Campaign of injury prevention in community - Lund-speaker about traffic injury prevention in community...400...communities 	<ul style="list-style-type: none"> * Helmet wearing rate of rider (59.6%) and passenger (35.7%) * Seat belt fasten rate of driver (41.1%) and passenger who sit beside driver (39.7%) 	<ul style="list-style-type: none"> * Morbidity from traffic injury in municipality Khon Kaen 4197.5 / 100 thousand * Mortality from traffic injury in Khon Kaen municipality (2...6/ 100 thousand)

Activities	Process	Output	Effect	
5. Traffic injury prevention campaign during festival	* Set the traffic injury prevention campaign during festival	* Set the traffic injury prevention campaign during festival...2.....times (New year and Thai New year)	* Helmet wearing rate during Festival 27.7% * Seat belt fasten rate (46.5 %) * Alcohol drinking rate (40.2 %) (During festival)	* Traffic injury rate during festival Morbidity rate/ Mortality rate New year festival 50.7/ 1.3 100 thousand Thai New year 59.5 / 0.9 100 thousand
6. "Don't drive drunk" project	* To give information "Don't drive drunk" project * Set up the parade of campaign * Set up the alcohol check point during festival	* To give information "Don't drive drunk" project...1...times * Set up the parade of campaign.....-.....times * Number of vehicle on parade.....-.....units * Set up the alcohol check point during festival64....times	* Alcohol in blood of driver...22.9....% of all person tested	* Morbidity from traffic injury in municipality 4197.5 / 100 thousand * Mortality from traffic injury in municipality 27.6 / 100 thousand

Output 4 Training

Activities	Process	Output	Effect	Impact
4.1 Training of EMT, EMS, RN	<ul style="list-style-type: none"> * Training of nurse Pre-hospital care * Training of EMT * Training of first responder 	<ul style="list-style-type: none"> * Training.....50.....times * Participant...1312.....persons 	* Personnel conduct as guideline.....%	* Survival rate of cardiac arrest patient in hospital.....%
4.2 Training of Life Support	<ul style="list-style-type: none"> * Training of personnel 100% 			

Output 4 Research

Activities	Process	Output	Effect	Impact
KKH Injury Research Center	<ul style="list-style-type: none"> * Meeting/training of related research knowledge * Research working * Produce bulletin 3 times /year 	<ul style="list-style-type: none"> * Research meeting..1.times * Participant...78..persons * Number of research5.....cases * Bulletin 2 report 	* Number of research published	<ul style="list-style-type: none"> * Number of research publication * Number of research presented in academic forum

Output 5 Generalization

Activities	Process	Output	Effect	Impact
5.1 National Conference on traffic accident prevention and control	<ul style="list-style-type: none"> * Produce project * Produce program * Invite lecturer * Prepare meeting 	<ul style="list-style-type: none"> * National seminar1.....time/year * Participant 480...persons 	<ul style="list-style-type: none"> * Participant - Understanding.....% - Satisfaction.....% 	<ul style="list-style-type: none"> * The model had been generalized by other provincesprovinces
5.2 Produce and distribute report	<ul style="list-style-type: none"> * Produce textbook, journal * Distribute report 	<ul style="list-style-type: none"> * Produce textbook 20.units * Distribute document650.....cases * Present report...2...times * Lecture.....24.....times 	<ul style="list-style-type: none"> * Reference of project outcome.....times 	<ul style="list-style-type: none"> * The model had been generalized by other provincesprovinces