

Pre-Hospital Emergency Nursing in Primary Services in Indonesia: Current Condition, Research Perspective & Prevention Program for SDGs

Prof. Ns. Tantut Susanto, S.Kep., M.Kep., Sp.Kep.Kom., Ph.D
Centre of Agro-nursing for Community, Family & Elderly Health Studies
Department of Community, Family & Geriatric Nursing
Faculty of Nursing
E-mail: tantut_s.psik@unej.ac.id

Abstract

Primary Health Care (PHC) is essential health care made universally accessible to individuals & acceptable to them, through their full participation & at a cost the community & country can afford. Prehospital care is a crucial aspect of emergency medicine that involves providing medical assistance to patients before they arrive at a hospital or healthcare facility. Emergency cases in PHC is need attention from healthcare providers to minimize the hazardous and harm for continuing of care in hospital (secondary and tertiary of care). Therefore, it is need to develop emergency management systems and healthcare emergency teams in Indonesia setting. Indonesia has many emergency cases, including disaster, outbreaks, accidents and injuries, and maternal and neonatal emergency. The system is need supporting a healthcare providers training, improving their knowledge, budgeting in UHC, and infrastructure in community health setting. Nurses have important role for supportive pre hospital care in emergency cases in community in the qualification of SDGs based program. This paper is described "Pre-Hospital Emergency Nursing in Primary Services in Indonesia: Current Condition, Research Perspective & Prevention Program for SDGs" regarding a literature review from previous studies. Then, the preventive and promotive program regarding community and family-based program are also analyze to support how to develop community health program in PHC to achieve SDGs.

Keywords: Pre-hospital care; Emergency care; Primary health care; Sustainable development goals.



Pre-Hospital Emergency Nursing in Primary Services in Indonesia: Current Condition, Research Perspective & Prevention Program For SDGs

By:

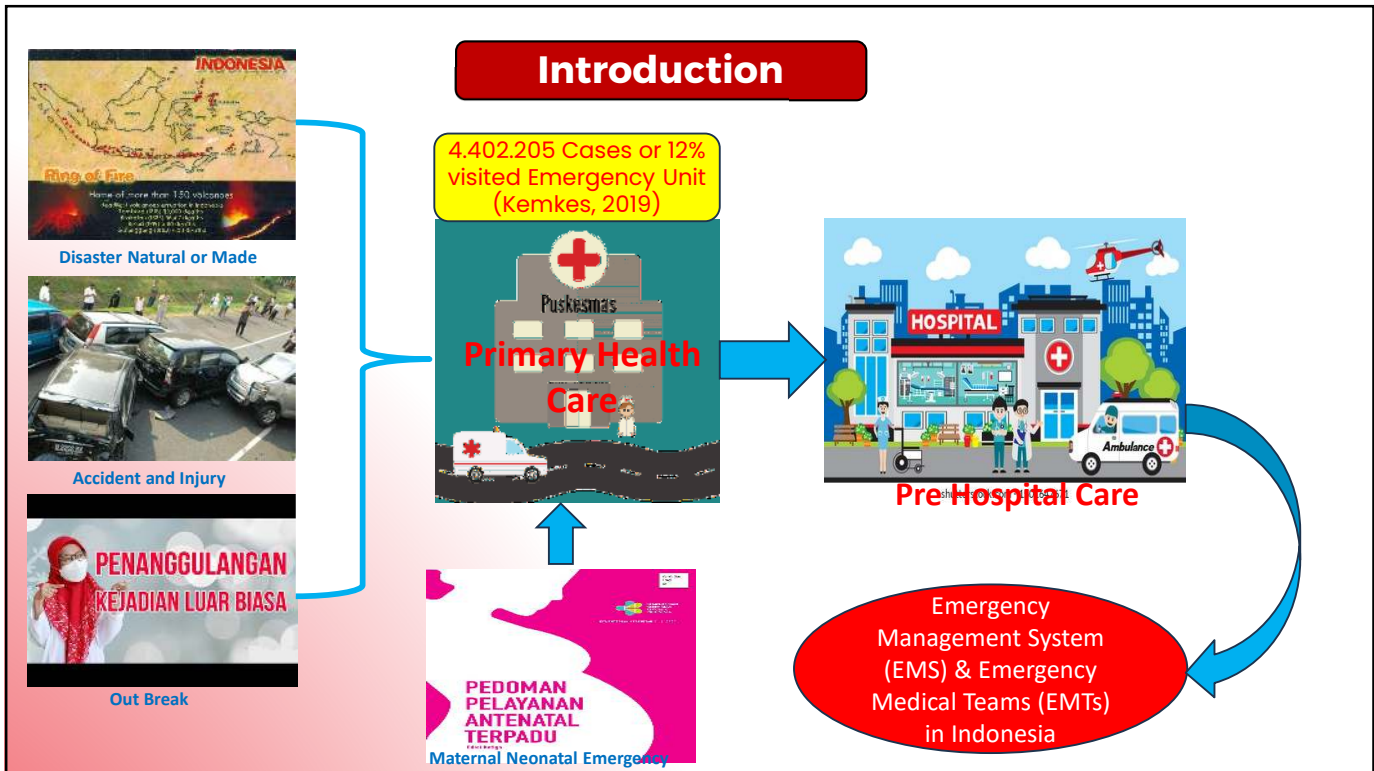
Prof. Ns. Tantut Susanto, S.Kep., M.Kep., Sp.Kep.Kom., Ph.D

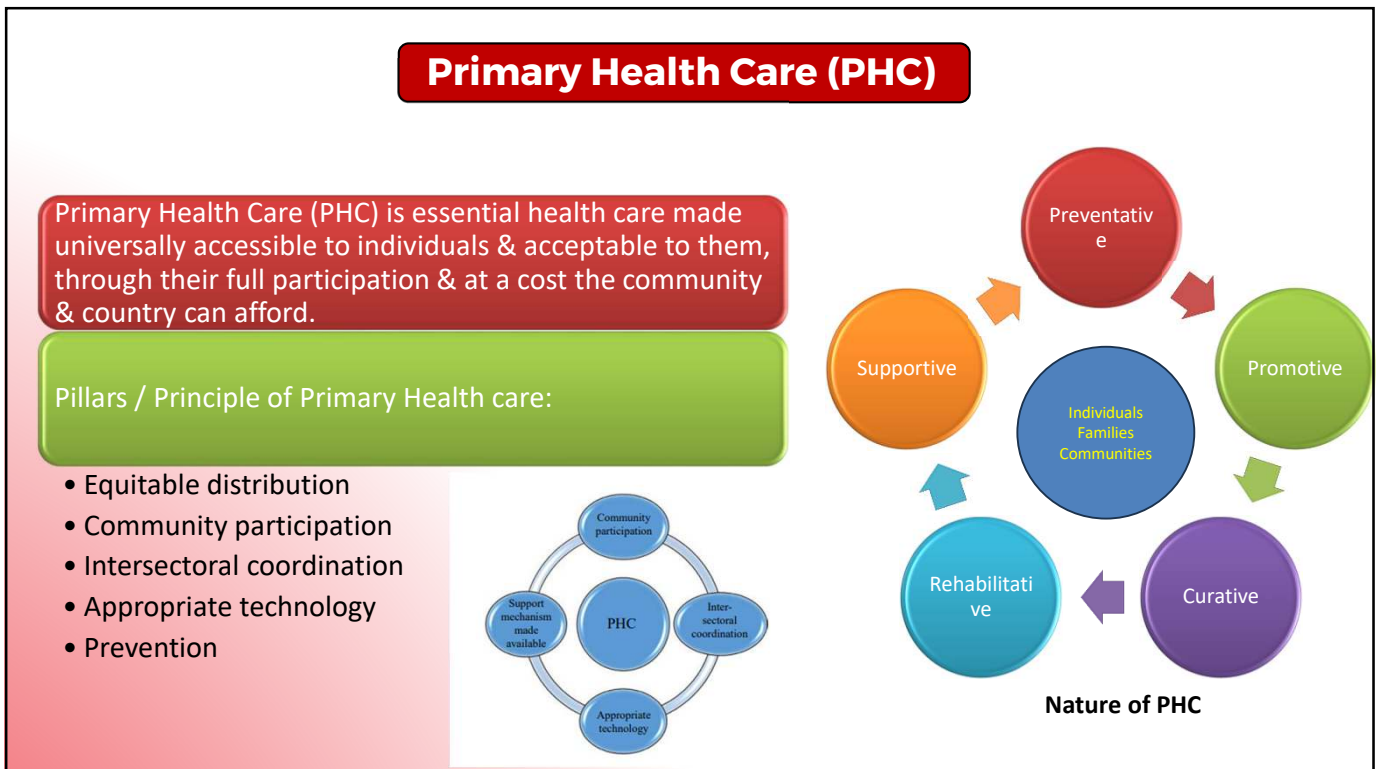
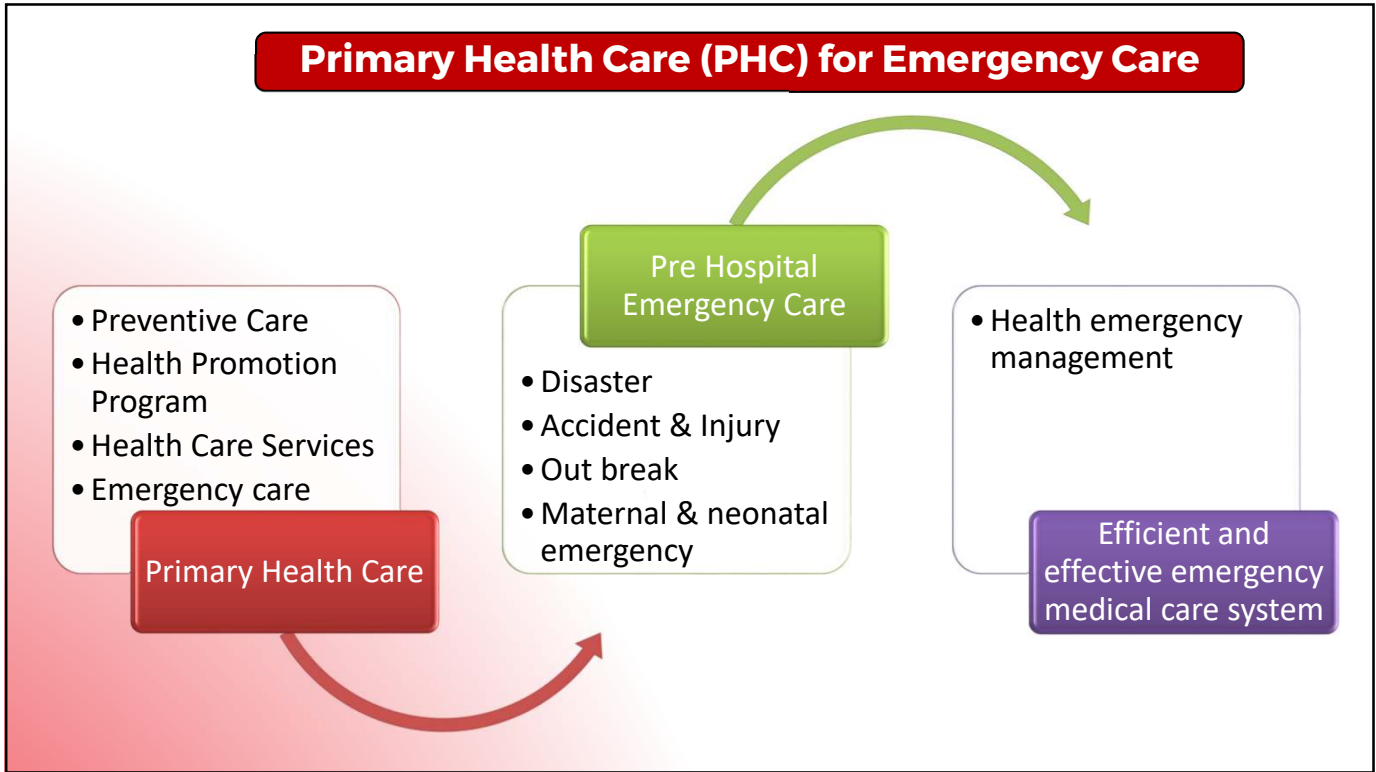
Department of Community, Family & Geriatric Nursing
Faculty of Nursing
Universitas Jember

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1. INTRODUCTION





Pre Hospital Care

Prehospital care can be defined as the care received by a patient from an emergency medical service before arriving at a hospital

Prehospital care is a crucial aspect of emergency medicine that involves providing medical assistance to patients before they arrive at a hospital or healthcare facility

Prehospital care is often the first point of contact between a patient and the healthcare system and plays a critical role in reducing mortality and morbidity associated with acute illnesses and injuries.

This type of care is typically delivered by EMS personnel, who are trained to provide a range of treatments and interventions to stabilize patients and prepare them for transport to a hospital.

Prehospital care plays a vital role in improving patient outcomes, as early intervention can often mean the difference between life and death.

2. Current situation of emergency in Southeast Asia Region

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Emergency Cases in SEA

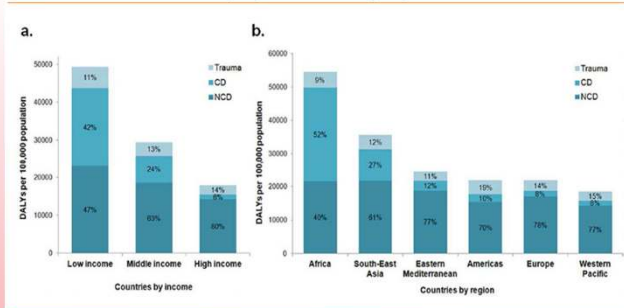


Fig 1. Disease adjusted life years lost per 100 000 population by Regions and income groups

Among all WHO Regions, the SEA Region has the second-highest burden of disease-adjusted life years (DALYs) per 100 000 population attributable to emergency conditions (Figure 1).

Table 1: Projections of mortality in the SEA Region by cause for 2015 and 2030

Year	2015		2030	
Population (thousands)	1 920 761		2 205 146	
GHE 2012 cause category	Deaths	% Total	Deaths	% Total
All Causes	14 851 365	100	18 594 698	100
I. Communicable, maternal, perinatal and nutritional conditions	3 747 909	25	2 997 897	16
II. Non-communicable diseases	9 427 778	63	13 472 109	72
A. Cardiovascular diseases	4 159 313	28	5 872 482	32
B. Respiratory diseases	1 711 507	12	2 560 625	14
C. Malignant neoplasms	1 412 145	10	2 309 860	12
D. Diabetes mellitus	433 915	3	690 283	4
III. Injuries	1 675 678	10	2 124 691	10

This projection shows a significant decrease in mortality from communicable, maternal, perinatal and nutritional causes from 25.2% to 16.1%. However, there is a projected rise in deaths due to non-communicable diseases (NCD) from 63.5% in 2015, to 72.5% in 2030, which is a cause for concern.

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

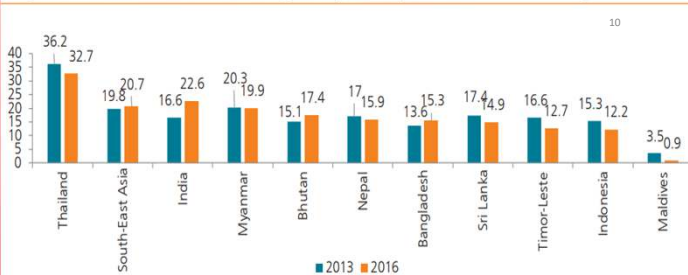
Death by Injuries in SEA

Table 2: Deaths (thousands) by injuries estimated in 2015 and projected in 2030 in the SEA Region

Estimated injury deaths 2015	Projected injury deaths 2030
1 Road injury (29%)	Road injury (29%)
2 Self-harm (18%)	Falls (22%)
3 Falls (17.8%)	Self-harm (17%)
4 Other unintentional injuries (15%)	Other unintentional injuries (14%)
5 Drowning (7%)	Drowning (6%)
6 Interpersonal violence (6%)	Interpersonal violence (5%)
7 Fire, heat and hot substances (4%)	Fire, heat and hot substances (3%)
8 Poisoning (2%)	Poisoning (2%)
9 Collective violence and legal intervention (0.16%)	Exposure to forces of nature (1%)
10 Exposure to forces of nature (0.03%)	Collective violence and legal intervention (0.07%)

- Injuries, road injuries, self-harm, falls and other unintentional injuries are among the main causes of morbidity and mortality (2015) and projected to remain so till 2030 (Table 2).
- Among injuries, road crashes are the commonest cause in the SEA Region and likely to remain so, increasing from 24.7% in 2015, to approximately 29% in 2030

Figure 2: Estimated road traffic fatality rate by country, 2013 and 2016, SEA Region countries



- Figure 2 illustrates estimated, country-specific road traffic fatality rates per 100 000 population in 2013[10] and 2016.
- There is variation between the efforts made by Member States to decrease their road traffic deaths.
- While many were able to decrease fatality rates, some showed an increase in their rates.

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

Road Traffic Deaths in SEA

Table 3: Number of estimated road traffic deaths by country, 2013 and 2016

Country	2013		2016	
	Estimated number	%	Estimated number	%
Bangladesh	21 316	6.86	24 954	6.29
Bhutan	114	0.04	139	0.04
India	207 551	66.76	299 091	75.37
Indonesia	38 279	12.31	31 726	7.99
Maldives	12	0.00	4	0.00
Myanmar	10 809	3.48	10 540	2.66
Nepal	4713	1.52	4622	1.16
Sri Lanka	3691	1.19	3096	0.78
Thailand	24 237	7.80	22 491	5.67
Timor-Leste	188	0.06	161	0.04
Total	310 910	100.00	396 824	100.00

- In 2013, more than two thirds of deaths due to road traffic injuries in the SEA Region occurred in India, and this increased to over three fourths of deaths in 2016 (Table 3).
- About a third of deaths occur at the site of injury, 10–15 % during transit and transfer, and the rest are managed in hospitals, which places a heavy burden on ECS.

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

COVID-19 Emergency

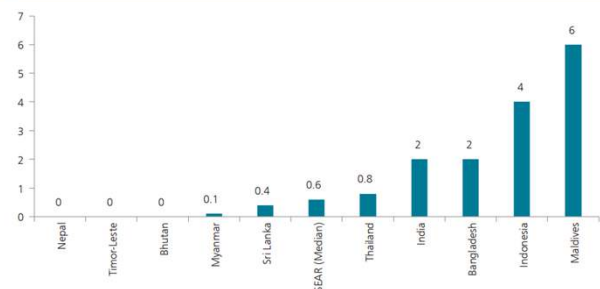
Table 4 : COVID-19 in the SEA Region (last update: 25 May 2020)

Country	Total confirmed cases	Total deaths	Transmission classification
Bangladesh	32 078	452	Clusters of cases
Bhutan	24	0	Sporadic cases
India	131 868	3 867	Clusters of cases
Indonesia	21 745	1351	Community transmission
Maldives	1313	4	Clusters of cases
Myanmar	201	6	Clusters of cases
Nepal	584	3	Sporadic cases
Sri Lanka	1089	9	Clusters of cases
Thailand	3040	56	Clusters of cases
Timor-Leste	24	0	Clusters of cases
South-East Asia Region	191 966	5748	

- As of 25 May 2020, there were more than 190 000 cases of COVID-19, and more than 5700 deaths from it in the Region.
- A significant number of the patients would have accessed emergency services, at one time or the other.
- Furthermore, due to the lockdowns associated with COVID-19 and a variety of other reasons, many patients who required health services including emergency services, may not have been able to access them.
- Table 4 reflects the situation of COVID-19 in the Member States of the SEA Region.

- As of May 2020, the SEA Region is not yet the one most severely affected by the COVID-19 pandemic.
- Figure 3 and Table 4, the median number of COVID-19 deaths per million population in the SEA Region at the present time is 0.6, as compared to 263 in the United States of America, 584 in Spain, 495 in the United Kingdom, and 519 in Italy

Figure 3: COVID-19 mortality in SEA Region Member States per million population



Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

3. Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region

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Strengthening the building blocks of the health system for integrating ECS

- The six building blocks of the health system also hold good for the primary care system.
- All variables needing consideration when applying a macro-block to a micro-block of the health system, or, when finalizing integration at PHC level, need to be addressed with the utmost sincerity and in detail.

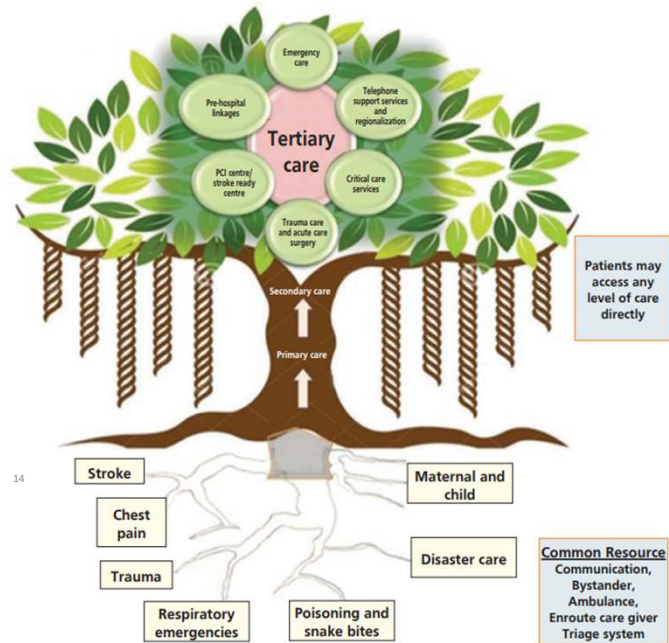


Figure 4: Integrated model: The roots feeding the emergency care system the emergency care system

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

Table 5: Strategic inputs for six health system building blocks to integrate ECS in PHC

The six building blocks of the health system	Strategic components reflecting integration of ECS in primary health care (PHC)
1. Leadership and governance	<ul style="list-style-type: none"> Omnibus law and policies for integrated ECS, governance structure of ECS Regulatory mechanism and accountability processes Country-specific planning (processes and outcomes) of framework for short-/long-term implementation Ethical governance based on foundations of justice and fairness
2. Smart financing for cashless ECS	<ul style="list-style-type: none"> Pooling of financial resources (revenue and taxation) Development of single payer system for ECS • Country-specific financial models for cashless ECS Budget impact assessment weighting improved DALYs, versus cost effectiveness of integrated ECS
3. ECS human resource development	<ul style="list-style-type: none"> Compulsory capacity development of existing human resources (doctors, nurses, technicians, support staff, and field health workers) in integrated ECS, through standard/modular/IT-enabled training programmes Generation of new batches of expert emergency physicians, nurses and technicians through emergency medicine, emergency nursing and emergency technician residency programmes at all medical schools Development of a database of manpower with different skill domains, so that they can be rapidly deployed during emergencies for capacity enhancement and training of trainers.
4. ECS integration within PHC	<ul style="list-style-type: none"> Hands-on training of all PHC staff in ECS Developing telemedicine-based support to PHC Staff, to improve quality of ECS Establishing ECS protocols and SOPs in PHC Documentation of processes and their impact on public health Supply chain management of equipment and material in PHC Timely access to safe patient transfer between PHC and secondary and tertiary care Inbuilt quality assurance and quality improvement programmes Regular national assessment of ECS in PHC Community engagement to improve quality and utilization of ECS in PHC
5. Use of technology in medicine	<ul style="list-style-type: none"> Supply chain management for medicines, equipment, accessories in PHC Using artificial intelligence to generate warnings on outbreaks and disease patterns Promoting innovation, research in the SEA Region, m-health and e-health to improve the quality of ECS in PHC
6. Health information system	<ul style="list-style-type: none"> Generation of good quality data from primary, secondary and tertiary care Data mining at Regional and national level to generate trends Data-sharing protocols for improvement of delivery of emergency care

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

Table 6: How integrated ECS in PHC can help achieve SDG goals for 2030

SDG goal	Description of SDG	Role of ECS in PHC
3.1	Reduction of global maternal mortality rate	Training of PHC staff for early management of hypertension, diabetes, sepsis and hemorrhage in pregnancy in PHC
3.2	Reduce under 5 and neonatal mortality	Treatment of diarrhea, pneumonia and sepsis in PHC
3.4	Reduce premature mortality due to non communicable diseases	Timely and evidence based management and referral of myocardial infarction, stroke, asthma, obstructive airways disease, poisonings, snake bites and other injuries in PHC
3.6	Halve the number of deaths and injuries due to Road traffic accidents	Immediate post crash care, proper stabilization and then smooth referral by trauma life support trained staff in PHC and ambulances
3.8	Universal health coverage and financial risk protection	Accessible ECS beginning in PHC and integrated with secondary and tertiary care, free of cost for all people
3d	Strengthen the capacity of LMICs for early warning, risk reduction and risk management for global health risks	Integrated ECS with inbuilt data collection, analysis and sharing platforms to generate early warning signals through ongoing syndromic surveillance and use of artificial intelligence systems.
16.1	Significantly reduce violence and related deaths	Trauma, life-support trained staff at all levels to provide evidence-based care and reduce violence related mortality

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

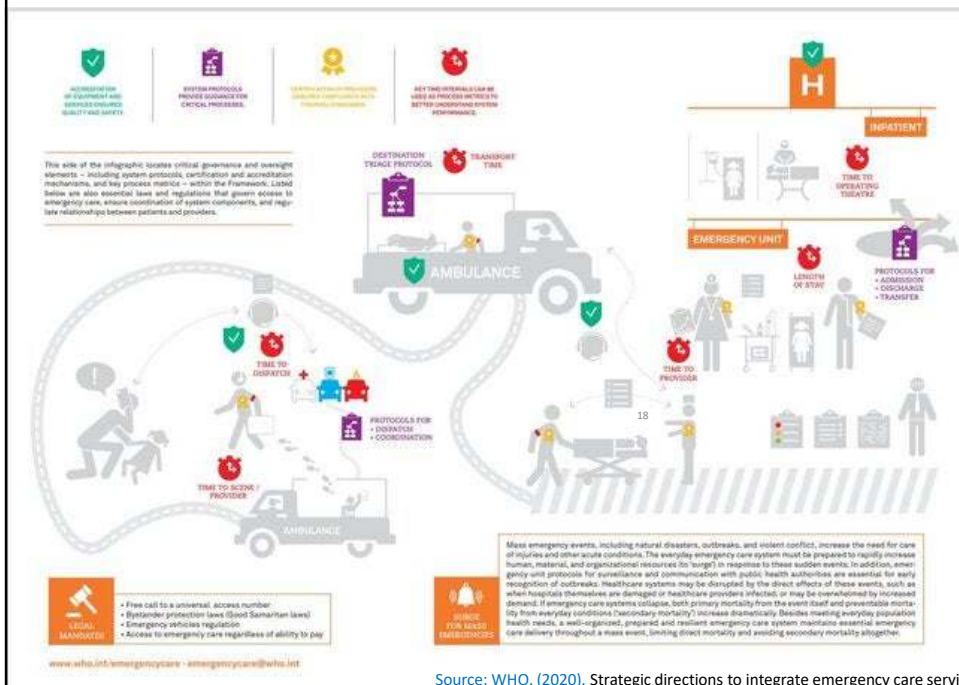
Figure 5 a. WHO ECS Framework



- Figure 5a illustrates the essential functions of an effective ECS, and the key human resources, equipment, and information technology needed to execute them.
- It is organized on the basis of WHO's six building blocks for health systems.
- Though this infographic shows an injured person, the procedure works the same way for any emergency, and the basic principles of ECS remain unchanged.

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

Figure 5b. WHO ECS Framework

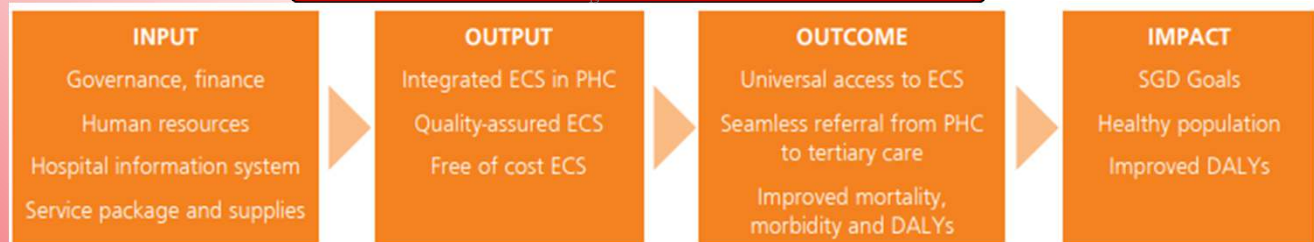


- Figure 5b complements Figure 5a, by locating critical governance and oversight elements, including system protocols, certification and accreditation mechanisms, and key process metrics within the framework.
- Also identified in the figure are essential, overarching laws and regulations that govern access to ECS, ensure coordination of system components and regulate relationships between patients and providers.

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

Table 5: Four Step Process of ECS integration and corresponding tools

Strategy of integration of ECS in PHC (Four-step process)	
Four-step Process	Tools
1. Current situational analysis	Use standard assessment tools(WHO tools)
2. Develop a strategic plan	Country-specific plan of integration of ECS in PHC
3. Establish monitoring and evaluation processes	Develop a framework for monitoring, evaluation and review
4. Implementation	Roll out the strategic plan after capacity-building

Table.6: National integration plan: conceptual model

Source: WHO. (2020). Strategic directions to integrate emergency care services into primary health care in the South-East Asia Region.

4. Nursing and the Sustainable Development Goals: From Nightingale to Now

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Nursing and the Sustainable Development Goals: From Nightingale to Now

Social health determinants:

- Availability of resources to meet daily needs, such as educational and job opportunities, living wages, or healthful foods
- Social norms and attitudes, such as discrimination
- Exposure to crime, violence, and social disorder, such as the presence of trash
- Social support and social interactions
- Exposure to mass media and emerging technologies, such as the Internet or cell phones
- Socioeconomic conditions, such as concentrated poverty
- Quality schools
- Transportation options
- Public safety
- Residential segregation



Environmental health determinants:

- Outdoor air quality
- Surface and groundwater quality
- Toxic substances and hazardous waste
- Homes and communities
- Infrastructure and surveillance
- Global environmental health

HOW NURSES ARE ACTUALIZING THE SDGs:

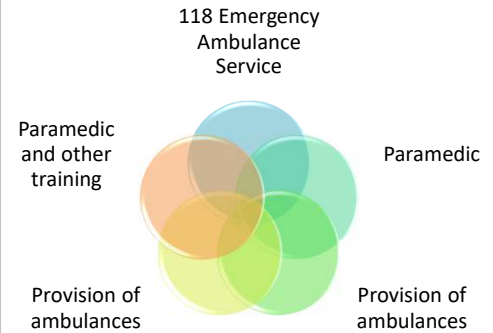
- Social determinants of health.
- Environmental determinants of health.
- Advocacy, safety, and well-being.
- Planetary sustainability.

Dossey & Beck (2019). Nursing and the Sustainable Development Goals: From Nightingale to Now. American Journal Nursing. 119 (5): 44-49

Prehospital care in Indonesia

Table 2 Three levels of paramedic at 118 Emergency Ambulance Service

Level 1	Level 2	Level 3
Three years On the job and classroom	One year Rotate between 118 and hospital departments	One year On the job and classroom
Anatomy and physiology Basic life support skills Cannulation Administration of drugs	Intensive therapy unit Coronary care unit Paediatric and neonatal ICU Burns unit	Prehospital trauma life support Prehospital cardiac life support Prehospital neurology Paediatric and neonatal emergency transport
Basic life support	Haemodialysis unit	Urban and rural emergencies (including psychiatry and toxicology)
Ambulance driving Medical first responder Basic trauma life support Basic cardiac life support Basic paediatric life support Basic neurology	Emergency department Operating theatres	Major incidents Search and rescue techniques Survival skills

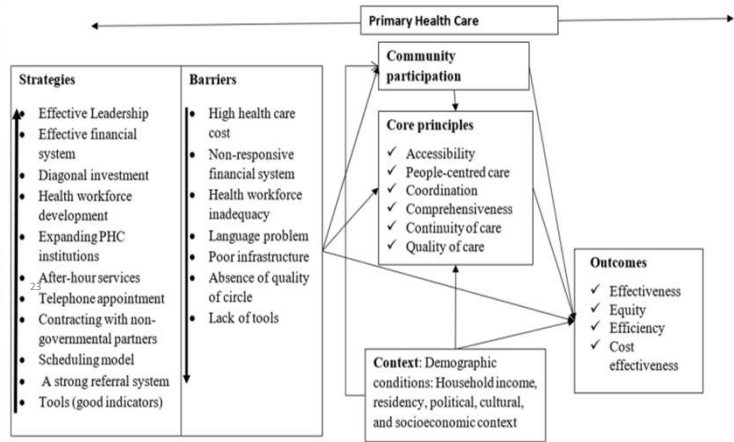


Pitt & Pusponogoro (2015). Emerg Med J 2005;22:144-147. doi. 10.1136/emj.2003.007757

6 Pillars of Health Transformation in Indonesia

Strategies and barriers of Primary Health Care

-  TRANSFORMASI LAYANAN PRIMER
-  TRANSFORMASI LAYANAN RUJUKAN
-  TRANSFORMASI SISTEM KETAHANAN KESEHATAN
-  TRANSFORMASI SISTEM PEMBIAYAAN KESEHATAN
-  TRANSFORMASI SDM KESEHATAN
-  TRANSFORMASI TEKNOLOGI KESEHATAN



Endalamaw et al. Archives of Public Health (2023) 81:100

5. EMS and hospital care research activities

Goal and 12 strategic actions of the South-East Asia Regional Strategy on Primary Health Care (2022–2030)

GOAL: Achieve universal health coverage, health security, and the health-related SDG targets by 2030 through a PHC-oriented health system

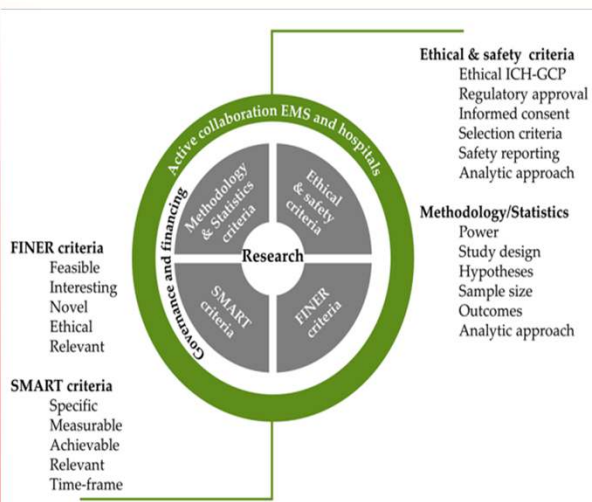


12 Strategic actions

- 1. Review and update national policies and plans.
- 2. Ensure financing of PHC.
- 3. Reform governance and ensure multisectoral convergence.
- 4. Reimagine and reorganize PHC service delivery.
- 5. Promote well-being.
- 6. Engage and empower communities.
- 7. Ensure that the PHC workforce is available, competent and performs well.
- 8. Ensure the availability, affordability and quality of essential medical products.
- 9. Strengthen the quality of PHC.
- 10. Leverage the potential of digital technology.
- 11. Strengthen health information systems.
- 12. Put in place learning systems for sustainable PHC.

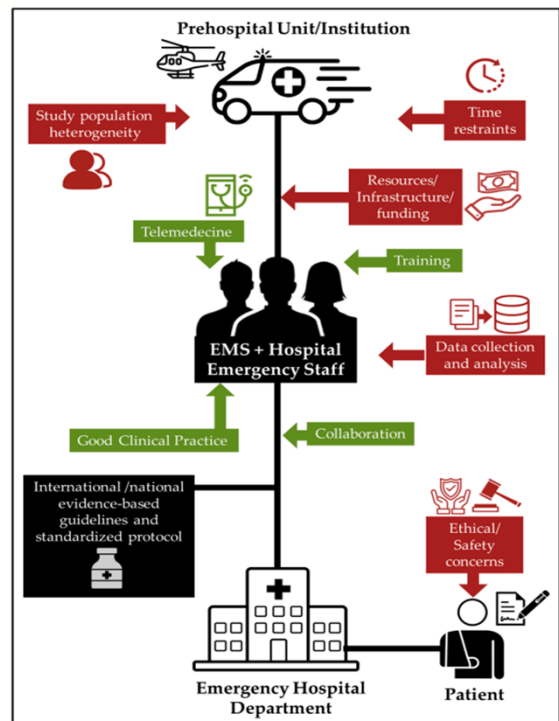
WHO South East Asian Regional Committee. (2022). Achieving UHC, SDGs and health security through stronger and more comprehensive PHC

EMS and hospital care research activities



Feasibility criteria needed for the development and success of a clinical research project in prehospital

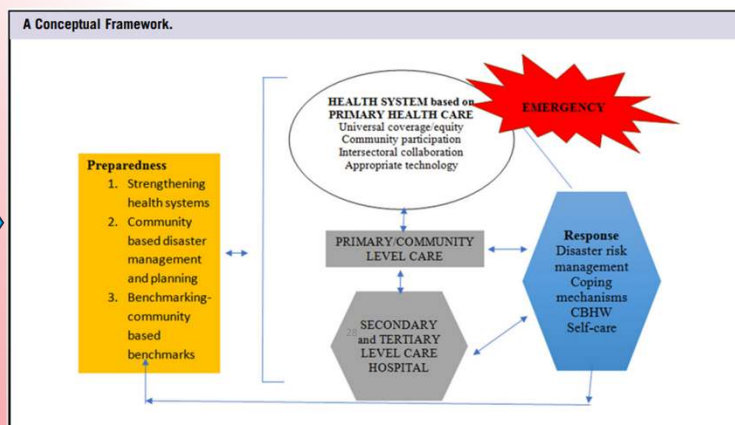
Cimino and Braun (2023). Clin. Pract. 2023, 13, 1266–1285. <https://doi.org/10.3390/clinpract13050114>



EMS and hospital care research activities

6. Strengthening Primary Health Care: Emergency and Disaster Preparedness in Community with Multidisciplinary Approach

Strengthening Primary Health Care: Emergency and Disaster Preparedness in Community with Multidisciplinary Approach



A Conceptual Framework PHC for Disaster Preparedness

The Role Of Primary Health Care In Emergency Disaster Preparedness

PHC In Indonesia Emergency And Disaster Preparedness

Challenges And Strategies of Strengthening Primary Care In Emergency And Disaster Preparedness

Effectively of Emergency Response Time



Kemkes (2021). https://yankes.kemkes.go.id/view_artikel/594/efektivitas-pelayanan-gawat-darurat-berdasarkan-emergency-response-time

7. Primary health care and health emergencies

Primary Health Care (PHC) & Emergency Care

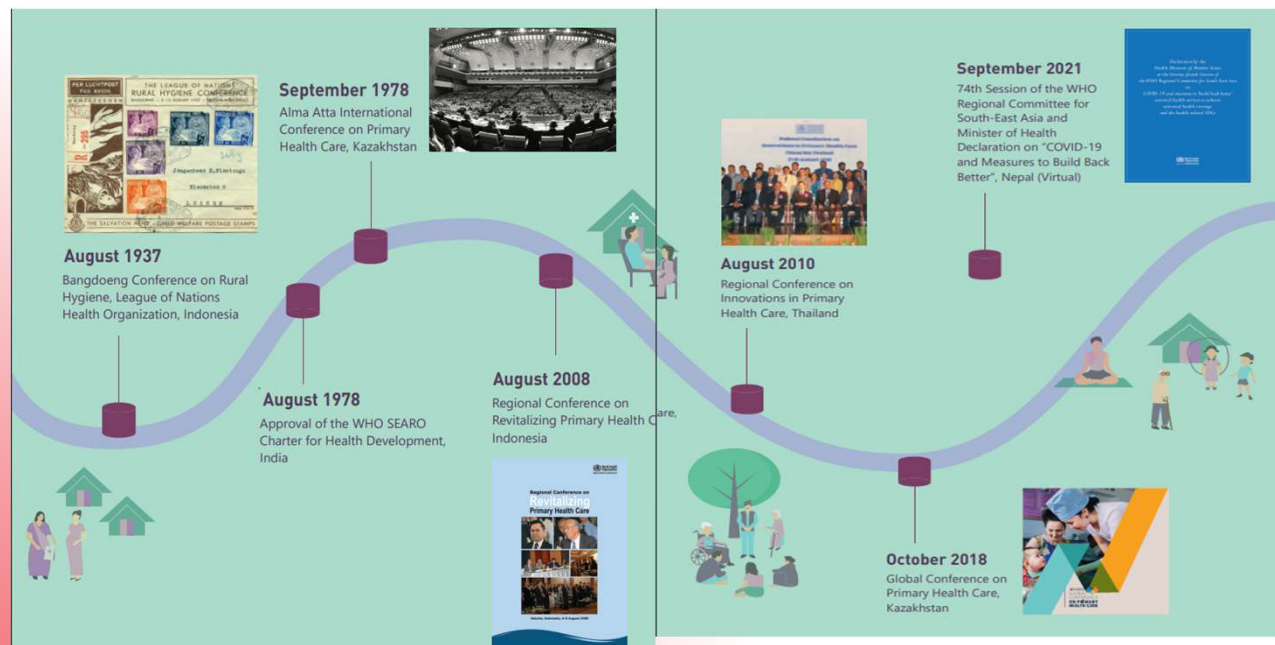
Elements of Primary Health Care (PHC):

- Education concerning prevailing health problem & the methods of preventing & controlling them
- Promotion of food supply & proper nutrition
- An adequate supply of safe water & basic sanitation
- Maternal & child health care, including family planning
- Immunization against major infectious diseases
- Prevention & control of locally endemic diseases
- Appropriate treatment of common diseases & injuries
- Provision of essential drugs

Emergency Care:

- Emergency care and pre hospital in Indonesia are still in an early phase of development, but have improved since pandemic COVID-19 and EM physician and nurse training program
- Increased EMS system was improved related accident and injuries cases, pandemic COVID-19, maternal and neonatal cases, or disaster and out breaks

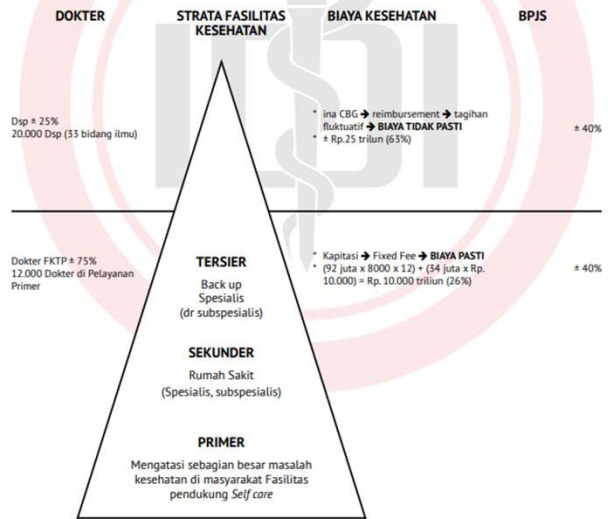
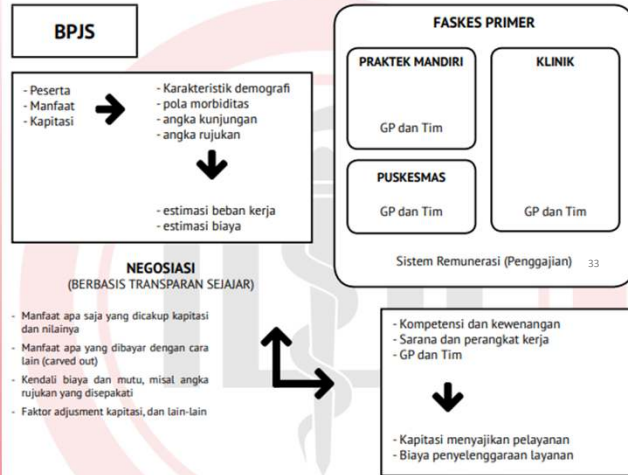
Key milestones: Primary Health Care



WHO (2021). South-East Asia Regional Strategy for Primary Health Care: 2022-2030

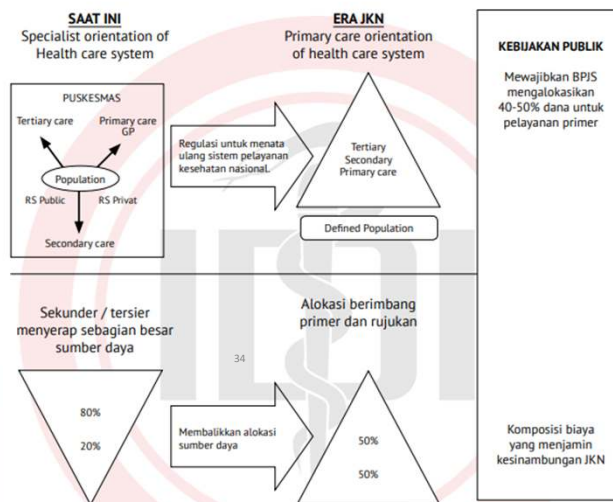
Re-Arrangement of Primary Health Care (PHC) in Indonesia

KONTRAK BERBASIS KAPITASI Mentransfer resiko finansial ke faskes primer



IDI (2016). Penantaaan Sistem Pelayanan Kesehatan Primer di Indonesia.

Transformation of Primary Health Care (PHC)



IDI (2016). Penantaaan Sistem Pelayanan Kesehatan Primer di Indonesia.

Management of Emergencies in General Practice: Role of General Practitioners

Competencies Required:



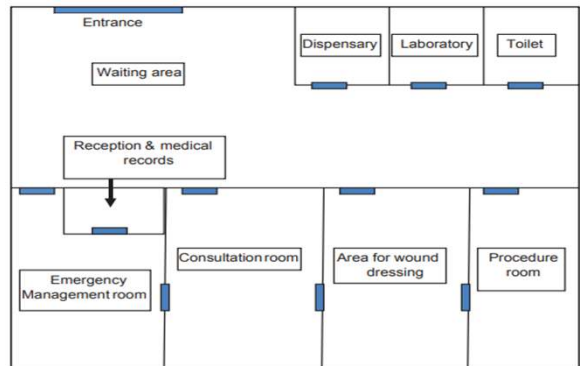
Necessary equipment:

- Nebulizer
- Suction apparatus
- Oxygen cylinder with regulator
- Fingertip pulse oxymeter
- Laryngoscope
- Airways
- Ambu bag
- ECG machine
- IV cannulas 16-21G and butterfly
- Syringes-different sizes 3cc, 50cc
- Glucometer Defibrillator

Essential medications:

- Adrenaline 1:1000 vials
- Chlorpheniramine IV vials
- Promethazine IV vials
- Salbutamol respiratory solution
- Prednisolone tablets ³⁵
- IV hydrocortisone vials
- Rectal diazepam preparation
- Aspirin tablets
- Morphine vials IV furosemide vials
- Diclofenac sodium suppository
- Hyoscine butylbromide vials
- IV fluids-N. saline, 5% dextrose, 50% dextro

Appropriate practice layout to provide emergency care



Ramanayake R, Ranasingha S, Lakmini S. Management of emergencies in general practice: Role of general practitioners. J Fam Med Primary Care 2014;3:305-8.

Role of primary health care and health emergencies



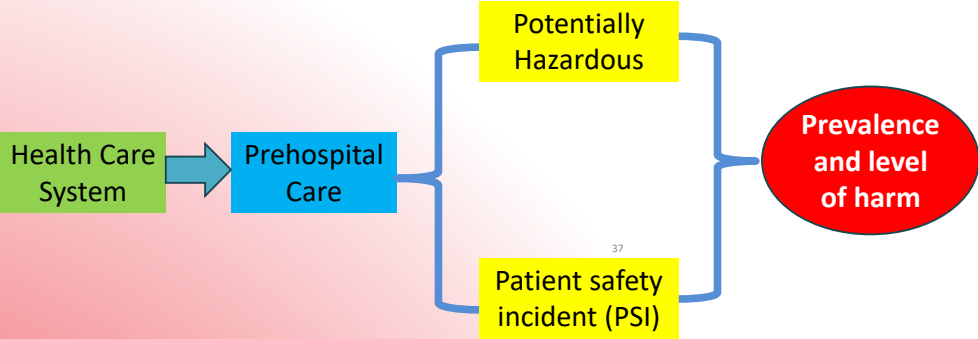
Primary health care and emergencies – opportunities for action



WHO (2018). Brief Primary health care and health emergencies: Technical Series on Primary Health Care.

How safe is prehospital care?

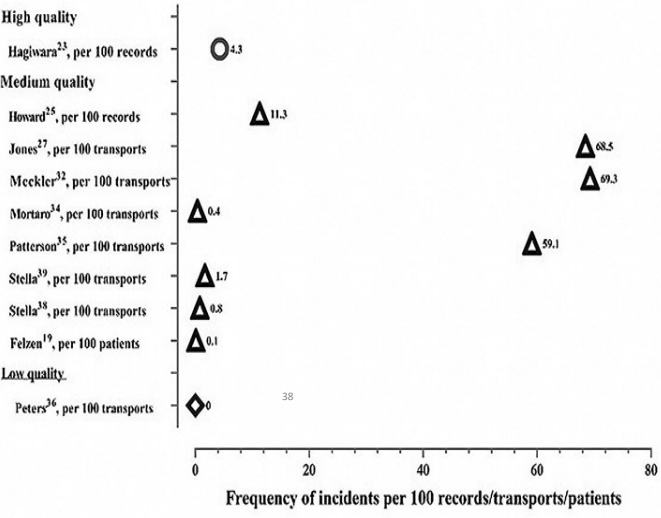
PSI; defined as any unintended or unexpected incident(s) that could have or were judged to have led to patient harm.



Prevalence and harm associated with PSIs in prehospital will support an understanding of how often they occur and the harm they cause to patients

O'Connor et al. (2021). International Journal for Quality in Health Care, Volume 33, Issue 4, 2021, mzab138

Graph of frequency of patient safety incidents in prehospital care

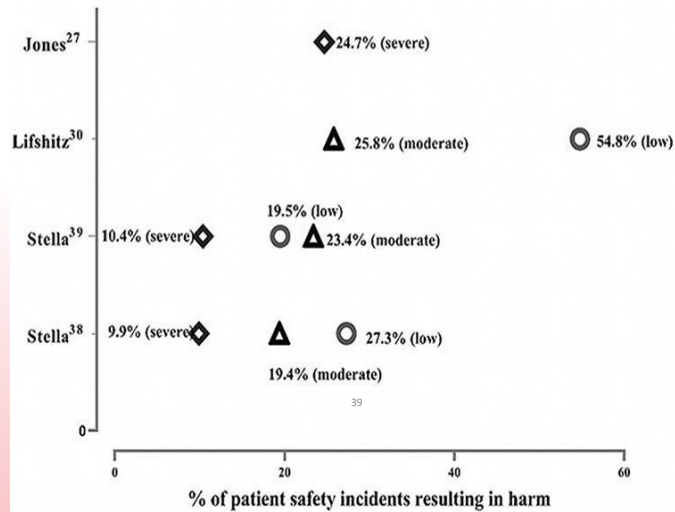


Note: ◇ represents studies that are of low quality; ▲ represents studies of medium quality; and ○ represents studies of high quality. Quality was appraised using a validated scale.(6)

Int J Qual Health Care, mzab138, <https://doi.org/10.1093/intqhc/mzab138>

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Graph of severity of harm associated with patient safety incidents in prehospital care.



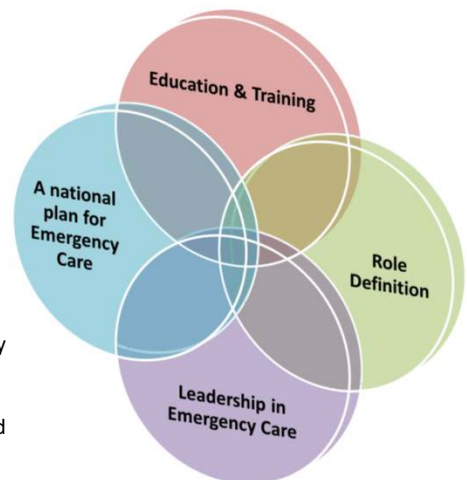
Note: represents estimates of severe harm; represents estimates of moderate harm; and represents estimates of low harm. Descriptors of harm were standardized based on methods suggested by the UK's National Patient Safety Agency.⁽¹⁴⁾

Int J Qual Health Care, mzab138, <https://doi.org/10.1093/intqhc/mzab138>

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Consensus-based recommendations for strengthening emergency care at primary health care level

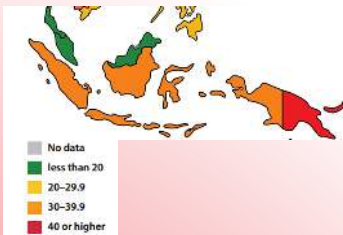
- Emergency care at a primary health care (PHC) level must be strengthened to reduce overall mortality and morbidity in any country.
- Developing recommendations for improvement in this area should take into consideration the context and nuances of the current emergency care system and primary health care context.
- Contribution to policy from the experts in the cross-cutting fields of PHC and emergency care is lacking.
- A well-coordinated emergency care system with adequately trained health care providers, clear direction and leadership and a contextually relevant referral system should be a national priority.
- Fourteen consensus based recommendations for strengthening emergency care at primary and subsequent levels of health care are presented, which if implemented have the potential to improve care, and reduce the burden of mortality and morbidity caused by poor emergency care beginning at the most basic, entry level of care to the most advanced facilities.
- The need to conduct a broad-based assessment of emergency care nationally has been highlighted in order to support the recommendations.



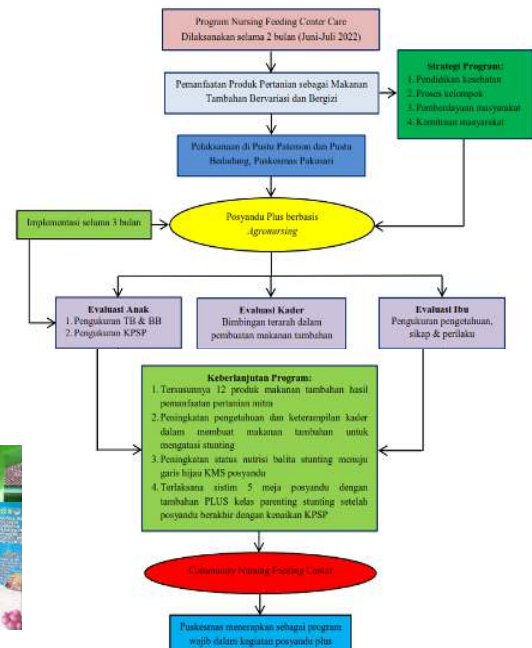
**8. Evidenced based practice
primary health care prevention
and promotion in Indonesia**

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Management of Nutrition of Under-five Children



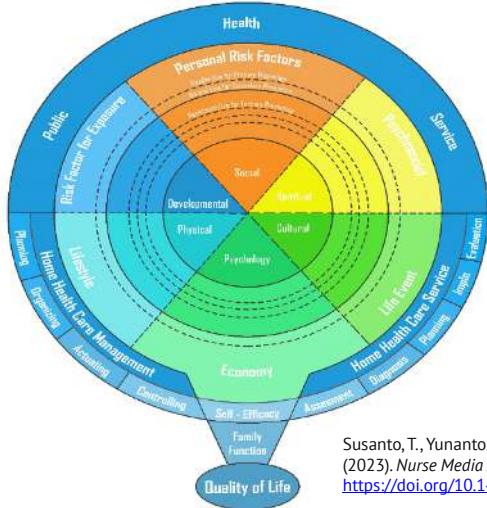
**Innovation
"Community Nursing Feeding
Center"**



Susanto et al. (2019). Public Health Nursing. 36 (4); 514-524. <https://doi.org/10.1111/phn.12620>
 Susanto, T., Rasny, H., Susumaningrum, LA. (2021) *Mediterranean Journal of Nutrition and Metabolism*, vol. 14, no. 2, pp. 147-161, 2021. DOI: 10.3233/MNM-200492
 Susanto, T., et al. (2021). *Malaysian Journal of Public Health Medicine*, 21(2), 61-74. <https://doi.org/10.37268/mjphm/vol.21/no.2/art.744>

Home Health Care Program for COVID-19

Innovation for Home Health Care Model (H2CM)



Source picture: <https://masvita-crystallin.com/>
<https://www.cnnindonesia.com/>

Community Health Nurses

Susanto, T., Yunanto, R. A., Septiyono, E. A., & Deviantony, F. (2023). *Nurse Media Journal of Nursing*, 13(3), 330-341. <https://doi.org/10.14710/nmjn.v13i3.51799>

Susanto T, Deviantony F, Yunanto RA, Septiyono EA. *Nurs Commun*. 2023;7:e2023011. doi:10.53388/IN2023011
 Susanto, T., Yunanto, R. A., Septiyono, E. A., & Deviantony, F. (2023). *Pielegniarstwo XXI wieku / Nursing in the 21st Century*. Volume 22 (2023): Issue 4. 229-234. DOI: 10.2478/pielxw-2023-0033

Nursing Process for Caring of COVID-19

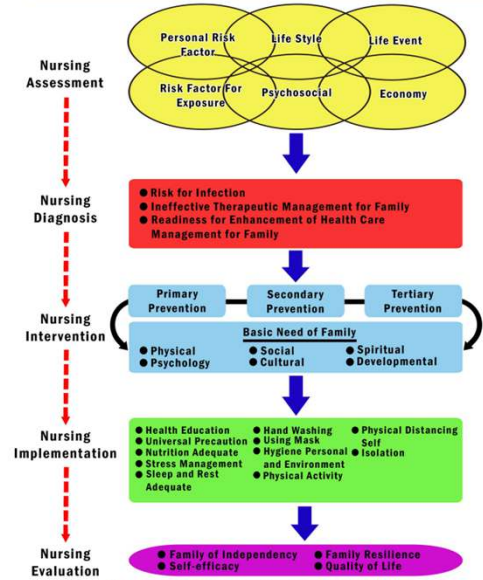


Figure 2 Nursing process to prevent COVID-19 among family

9. Conclusion

Conclusion

The increasing number of disasters and communities affected, coupled with the threats from climate change, has drawn not only national but also international attention to the risks of disasters and what can be done about them.

It is important for communities and all global partners to be more prepared by taking action before disasters occur through disaster risk reduction, including the efforts of emergency preparedness, as well as through disaster response and recovery.

To meet the emergency public health needs in any population, there is no other option than strengthening the primary health care system.

For this goal, practitioners from various professions can work together and share an affinity in synthesizing knowledge and bridging gaps across functional areas.

These include the disaster risk assessment and preparedness involving several disciplines for limiting human and material damage.

This primary health care strategy with a multidisciplinary approach is the best possible method in developing improved approaches for disaster risk reduction and emergency preparedness by improving health emergency management plans and protocols.

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Thank You

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