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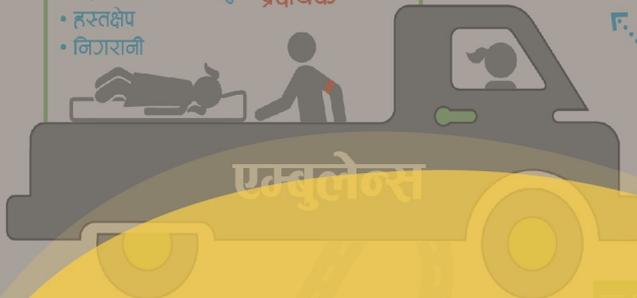
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REPORT ON
EMERGENCY CARE SYSTEM ASSESSMENT AND
CONSENSUS BASED ACTION PRIORITIES: NEPAL

Health Emergency and Disaster Management Unit
Health Emergency Operation Center
Kathmandu

REPORT ON

EMERGENCY CARE SYSTEM ASSESSMENT AND CONSENSUS BASED ACTION PRIORITIES: NEPAL

Government of Nepal
Ministry of Health and Population
2021

Report on Emergency Care System Assessment and Consensus-based Action Priorities: Nepal

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Message

It is my pleasure to release the findings of assessment of the emergency care system of Nepal. Emergency, trauma and acute care services are essential part of the health system and of Universal Health Coverage.

The assessment has identified priority strategic areas for actions to strengthen the emergency care systems and services in Nepal. The integrated approach recommended in the report will enable health facilities and the health care providers to manage children and adults with medical, surgical and obstetric emergencies, including injuries and infections, heart attacks and strokes, asthma and acute complications of pregnancy. This will ultimately help to realize the provision in the Constitution of Nepal which states that every citizen shall have the right to free basic health services and that no one shall be deprived of emergency health services.

I call upon the concerned divisions and departments to develop a roadmap to implement the priorities identified in the assessment.

Finally, I would like to thank Health Emergency and Disaster Management Unit, Health Emergency Operation Center and the World Health Organization for undertaking this assessment.

Mr. Laxman Aryal
Secretary
Ministry of Health and Population

Foreword

Emergency Care System (ECS) is the first point of contact with the health system for many, particularly in areas where there are access barriers to care. With sound planning and organization, emergency care systems have the potential to address over half of deaths in low- and middle-income countries. Acute illnesses, injuries, and complications of pregnancy that increase the chance of mortality which have enormous health and economic impact in Nepal can be addressed by strengthening the Emergency Care System.

The Seventy-second World Health Assembly (WHA 72.16) recognized that many proven health interventions are time dependent and that an integrated Emergency Care System (ECS) provides an effective platform for the delivery of accessible, quality and time-sensitive healthcare for acute illness and injury throughout the life-course. It acknowledged Sustainable Development Goal 3 "ensuring healthy lives and promote well-being for all at all ages" and recognized that well-organized safe and high-quality Emergency Care Systems in target countries have the potential to contribute significantly to SDG-3.

The ECS Assessment at national level was conducted during October-November 2019 with support of WHO. Based on the findings of the assessment and the action priorities identified by stakeholders through a consultative process, a road map for ECS development and strengthening in Nepal was envisioned. WHO would like to support the implementation of key proven low-cost interventions and tools that address some of the critical action priorities identified at the emergency rooms of major hospitals across the country.

The next step is to implement the Phase 1 of the WHO-Government of Nepal (GoN) ECS Strengthening Project at the largest emergency rooms of hospitals at each of the seven provinces. The interventions would contribute significantly to reduce the death rates of patients seeking emergency care and establish a functioning data collection system in the critical facilities.

Dr. Rajesh Sambhajirao Pandav
WHO Representative to Nepal

Government of Nepal
Ministry of Health and Population

Preface

Several health interventions for acute illnesses and injury across the life course are time-dependent requiring emergency care. These emergency care services delivered in routine times is equally important to prepare us to handle the unique demands of mass casualty or the disaster situation.

It is the responsibility bestowed upon us from our constitution to create policies to ensure universal access to safe, quality, emergency care for all within a broader health system that provides quality essential care and services and financial risk protection as part of universal health coverage. In order to bring this constitutional aspiration, we have undertaken an assessment of emergency care systems and services in Nepal using the WHO Emergency Care Systems Assessment (ECSA) tool. I am pleased to disseminate the report of this assessment.

As per the WHO ECSA tool, the five domains of the emergency care systems were assessed: System Organization, Governance and Finance; Emergency Care Data and Quality Improvement; Scene Care, Transport and Transfer; Facility-Based Care and Emergency Preparedness and Security. Under each domain, the detailed key issues and action priorities have been identified. In total, thirty-nine action priorities to strengthen Nepal's emergency care have been identified based on a consensus form wide range of stakeholder including service providers, facility managers, program managers, academicians or policy makers.

Moving forward, we have initiated the process of gradually implementing the action priorities in a systematic manner considering the emergency care needs of the routine times and the disaster. Accordingly, we have initiated actions to systematize the prehospital care systems in Nepal including ambulance service. And, we are implementing a set of high impact, low cost feasible interventions recommended by WHO in strategic hospitals in all provinces. Based on the implementation experience, we have a plan to scale this initiative in other health facilities.

I express my sincere gratitude to the Secretary for his guidance throughout the process. In addition, I acknowledge the support of WHO Country Office for Nepal and WHO Headquarters to undertake this assessment. Lastly, I thank all the participants for their feedback and colleagues at HEOC for the hard work.

Dr. Samir Kumar Adhikari
Chief, Health Emergency Operation Center
Health Emergency Disaster Management Unit

Prologue

Nepal is among the top 20 disaster-prone countries in the world due to its rugged topography, ecological diversity, seismic terrain and several flood-prone rivers it is vulnerable to a variety of multi-hazard disasters. Added to these factors are the risk from various infectious hazards and envenomation; man-made hazards such as fires, road traffic accidents and occupational injuries; intentional and accidental poisoning; life threatening medical emergencies due to the increasing burden of life-style diseases; and obstetric, neonatal and surgical emergencies due to lack of access to quality clinical care.

Given the acknowledged multi-hazards profile of the country and its high adverse impact on health, emergency preparedness and response readiness in the health sector has long been a priority in Nepal. Learning from the experiences of past disasters, significant developments have occurred in emergency health care both for post-disaster / public health emergency surge response and management of day-to-day health emergencies. Consequently, Nepal has been striving for wholistic development of the entire emergency care system consisting of prehospital, hospital and post-hospital / rehabilitative services.

The government's continued commitment to strengthening the delivery of emergency care is reflected in its initiatives in endorsing a basic health services package that includes critical emergency interventions and the development of an emergency health services package. Nevertheless, there are still a range of opportunities for improvement in emergency care, including better coordination for continuity of care, standardizing emergency care management processes and implementing data management systems harmonized across the emergency care pathway.

To come to grips with the current status of the national emergency care system, the MoHP along with WHO conducted an assessment in 2019 using the WHO Emergency Care Systems Assessment (ECSA) tool which is designed for systematic assessment of the essential components of a country's emergency care system. The main goal of the ECSA was to identify country specific action priorities for high impact improvements of emergency care system processes and outcomes.

Based on an extensive survey of a wide range of stakeholders using the country contextualized WHO ECS tool followed by a stakeholders consultation workshop to discuss and deliberate on the results of the survey, 39 action priorities were identified by consensus to strengthen the national emergency health emergency system. This report outlines the process, the outcomes and the prioritized recommendations across key domain of the emergency care system that would address both day-to-day health emergencies and post-disaster emergency care needs.

On behalf of the WHE Programme team and colleagues from the Clinical Services and Systems Unit of WHO, Geneva - I would like thank the leadership of the HEOC/HEDMU of the MoHP for the opportunity provided to WHO to partner in the joint national ECS Assessment and the continuing collaboration to strengthen the national ECS. The WHE programme especially and the entire WHO Country Office for Nepal looks forward to the successful implementation of the first phase of the WHO – Government of Nepal ECS Strengthening Project, the inception of which we are also marking along with the release of the ECSA report.

Dr. Reuben Samuel
Team Leader - WHO Health Emergencies Programme
WHO Country Office for Nepal

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ACRONYMS

ECS   :   Emergency care systems

ECSA :   WHO Emergency Care System Assessment

ECSS :   Emergency Care System Strengthening

EMR   :   Electronic Medical Record

EU   :   Emergency Unit

GETI :   Global Emergency and Trauma Care Initiative

GoN   :   Government of Nepal

HEOC :   Health Emergency Operations Center

MoHP :   Ministry of Health and Population

NAS   :   Nepal Ambulance Service

OCMC :   One-stop Crisis Management Centre

QI   :   Quality Improvement

PIP   :   Project Implementation Plan

SOP   :   Standard Operating Procedures

WHO :   World Health Organization

EXECUTIVE SUMMARY

Executive summary

Emergency care systems address a wide range of common medical, surgical, and obstetric conditions, including injury, complications of pregnancy, exacerbations of non-communicable diseases (e.g. asthma, heart attacks, strokes), and acute infections (e.g. sepsis, malaria). With sound planning and organization, emergency care systems have the potential to address nearly half of deaths and more than a third of disability in low- and middle-income countries.

Given the potential to reduce death and disability in Nepal through improvements in emergency care, the Nepal Ministry of Health and Population (MoHP), in collaboration with the World Health Organization (WHO), undertook a national system-level assessment using the WHO Emergency Care System Assessment (ECSA) tool.

Representatives from the following major groups dealing with emergency care in Nepal were represented at the consensus meeting:

- Ministry of Health and Population
- Provincial Health Directorates and Provincial Health Training Center, Ministry of Social Development
- Experts in emergency care
- Agencies of health emergency service providers and enablers
- Emergency Medical Service Researchers and Professors
- Health policy makers
- Representatives of international and national level non-governmental organizations – Nepal Red Cross Society, Nepal Medics, Nepal Disaster and Emergency Medicine Center, United Mission to Nepal and Nepal Ambulance Service

Emergency care has long been a priority in Nepal, striving for significant developments in both the prehospital and facility-based care system. There are still a range of opportunities for improvement including, improving coordination between prehospital and hospital-based services, standardizing emergency unit processes and implementing systematic data collection to support quality improvement efforts. The government's continued commitment to strengthening the delivery of emergency care in Nepal is reflected in its recent national strategies for the health sector.

Specific action priorities for each component of the emergency care system have been proposed by the working group as listed below, and details of the discussion on each topic are described in the main document.

LIST OF PRIORITIZED ACTIONS ACROSS ECS DOMAINS

LIST OF PRIORITIZED ACTIONS ACROSS ECS DOMAINS

Domain		Prioritized Action
System Organization, Governance and Finance	1	Develop a nation-wide status report (including all provinces) on emergency care (with WHO support), including burden of acute conditions and current status of everyday emergency care (HEOC and WHO)
Scene Care, Transport and Transfer	2	Develop standardized protocols for handover of patients from prehospital providers to facilities
Facility-Based Care	3	Develop a strategic plan for reducing overcrowding of emergency units, including consideration of length of stay limits and establishing overcrowding protocols
Facility-Based Care	4	Develop domestic violence screening protocols for emergency unit patients, with linkage to OCMC
System Organization, Governance and Finance	5	Establish a clear mandate for a lead government agency to coordinate prehospital and facility-based emergency care, and to liaise with emergency response programs
System Organization, Governance and Finance	6	Review WHO standards on essential emergency care services for inclusion in current service and benefit package development, including public health insurance benefit package
Facility-Based Care	7	Develop a mechanism for regular communication of policies and procedures to clinical providers
Emergency Care Data and Quality Improvement	8	Implement standardized clinical forms with embedded standard data points for emergency units and prehospital settings (based on review of existing form and WHO template).
Scene Care, Transport and Transfer	9	Establish one single, toll-free, three-digit, universal (nationwide) access number for emergency care services corresponding to international standards within country context (consider 112)

Domain		Prioritized Action
Scene Care, Transport and Transfer	10	Develop prehospital care protocols and supportive supervision systems
Scene Care, Transport and Transfer	11	Advocate to Ministry of Physical Infrastructure and Transport for revision of existing national traffic laws for ambulances and lights/sirens for civilian vehicles, and incorporate into the National Ambulance Operation Guidelines
Facility-Based Care	12	Incorporate emergency care elements into existing hospital accreditation and quality standards
Emergency Preparedness and Security	13	Complete creation and coordination of subnational EOCs as per current plan
System Organization, Governance and Finance	14	Develop a bystander protection law
Emergency Care Data and Quality Improvement	15	Implement WHO emergency and trauma care registry (with automated aggregation reporting) based on standardized data points embedded in the clinical chart, beginning with provincial and tertiary level healthcare settings
Emergency Care Data and Quality Improvement	16	Establish a simple emergency care quality improvement programme based on standardized charts and registry
Facility-Based Care	17	Develop system wide standards and protocols for key emergency unit processes (handover, formal triage, transfer, referral, admission, discharge) appropriate to the level of healthcare (WHO tools available).
Facility-Based Care	18	Develop clinical protocols for emergency unit clinical management of key conditions appropriate to the level of healthcare.
Facility-Based Care	19	Create a requirement for dedicated emergency and trauma care clinical training (including formal triage training) into undergraduate medical and nursing curricula.

Domain		Prioritized Action
Emergency Preparedness and Security	20	Establish facility-level security and safety protocols at each emergency unit to protect staff and infrastructure from violence
Emergency Preparedness and Security	21	Establish facility-level security and safety protocols at each emergency unit to protect staff and infrastructure from violence
Emergency Preparedness and Security	22	Develop security and safety protocols for emergency care personnel to protect from violence and risks in all settings
Emergency Preparedness and Security	23	Disseminate information about national emergency preparedness and response strategies to service providers
Scene Care, Transport and Transfer	24	Develop standardized protocols for inter facility transfers and referrals of patients
Scene Care, Transport and Transfer	25	Develop a formal prehospital system including centralized dispatch, destination triage, time targets for priority calls, field to facility communication, and mechanisms for supportive clinical guidance for the prehospital providers (protocols or advice line)
Scene Care, Transport and Transfer	26	When the service is appropriately ready, develop public education and dissemination campaign on the appropriate use of the emergency care access number
Scene Care, Transport and Transfer	27	Establish dedicated training and certification pathways for professional prehospital providers
Facility-Based Care	28	Develop a strategy for a government-run national poison control center for providers and the public
System Organization, Governance and Finance	29	Develop regulation mandating initial emergency care prior to payment (including registration payment and co-pays)

Domain		Prioritized Action
Facility-Based Care	30	Expand 24-hour availability of essential emergency laboratory services and timely results reporting at first-level and tertiary emergency units
Facility-Based Care	31	Expand 24-hour availability of essential emergency radiology services and timely results reporting at first-level and tertiary emergency units
Facility-Based Care	32	Expand postgraduate training programmes in emergency medicine to other universities
Emergency Preparedness and Security	33	Incorporate chemical, biological, radiological emergencies into current emergency response plans
Emergency Preparedness and Security	34	Expand emergency care staff training to include strategies to address violence in the workplace, including conflict resolution
Scene Care, Transport and Transfer	35	Establish a mandate requiring that the universal access number be free on all fixed and mobile lines from all telecommunication companies
Scene Care, Transport and Transfer	36	Implement a mechanism for monitoring performance with inspection/verification/audit at regular intervals to strengthen the implementation and enforcement of the National Ambulance Operation Guideline 2018 including equipment standards
System Organization, Governance and Finance	37	Create and fund a dedicated budget stream for prehospital and facility-based emergency care
Scene Care, Transport and Transfer	38	Establish central standards for content and certification of first aid trainings
System Organization, Governance and Finance	39	Develop a strategy for the establishment of a dedicated emergency fund at the federal, provincial and local government level, to ensure everyday emergency care is available to all. This should include incorporation of ECS strengthening into disaster and preparedness service expenditures

INTRODUCTION TO GLOBAL EMERGENCY CARE SYSTEM (ECS) AND WHO ECS ASSESSMENT

1. Introduction to Global Emergency Care System (ECS) and the WHO ECS Assessment

Emergency care systems (ECS) address a wide range of medical, surgical, and obstetric conditions, including injury, complications of pregnancy, exacerbations of non-communicable diseases (e.g. asthma, heart attacks, strokes), and acute infections (e.g. sepsis, malaria).[1] The emergency care system is often the first point of contact with the health system, particularly in areas where there are barriers to access.[2] With sound planning and organization, emergency care systems have the potential to address half of deaths and more than a third of disability annually in low- and middle-income countries (LMICs).[3,4]

Despite the potential benefit of an organized emergency care system, it remains underdeveloped in many countries.[5] As a result, emergency care delivery is often compromised due to a lack of supportive legislation, governance and regulation, gaps in funding, and insufficient human and physical resources.[6]

The WHO Emergency Care Systems Assessment (ECSA) is a tool designed for systematic assessment of essential components of a country's emergency care system. The main goal of the ECSA is to identify country specific action priorities for high impact improvements of emergency care system processes and outcomes. The following components of a national emergency care system are assessed via the ECSA: system organization; governance; financing; emergency care data; quality improvement; scene care; transport and transfer; facility-based care; and emergency preparedness and security.

Answers to the ECSA are aggregated and presented to a working group consisting of at least a core set of respondents at a two-day in country consensus meeting in Nepal. Each ECSA question is discussed and a final answer to each question is determined. At the end of an ECSA meeting, policymakers and planners discuss and gain consensus on action priorities for emergency care system strengthening. A given country's participants may choose to create a strategy for implementation of identified action priorities together at the end of the ECSA consensus meeting or choose to convene a separate implementation meeting with partners .

EMERGENCY CARE IN NEPAL

2. Emergency Care in Nepal

The constitution of Nepal has assured the right to free basic health and emergency health services. "Every citizen shall have the right to free basic health services from the State, and no one shall be deprived of emergency health services... And every citizen shall have equal access to affordable quality health services" (Nepal Constitution 35:1&3, 2015). Public Health Act of Nepal 2018, states, "Every healthcare organization is required to provide emergency health care." National Health Policy 2019 emphasizes the need to make Emergency Health services available at all levels including Basic Health Centers and Primary Hospitals. It supports the need to establish trauma care centers in strategic areas on major highways; expand ambulance services to all municipalities; provide Heli-ambulance services to the extreme rural areas; train doctors, nurses and other health workers on basic life support; and establish an Emergency Health Care Fund.

Nepal is a disaster-prone country exposed to a multitude of natural hazards. The country is ranked 11th in the world for risk of earthquake, and 30th for risk of flood and landslide. About 83% of Nepal lies in hill and mountain regions and 17% in the plain Terai. The hilly region is at risk of landslide and soil erosion whereas Chure and the Terai are at risk of flood, droughts, fire and epidemics. The Himalayan region is at risk of avalanche and glacial lake outburst (MoHA, 2018).

The Health Emergency & Disaster Management Unit (HEDMU) was always established in 2015 with a main responsibility to coordinate with the National Emergency Operation Centre (NEOC) for any health-related disaster response. The HEDMU formulates health emergency and disaster related policies, guidelines and Standard Operation Procedures (SOP) for the Federal, Provincial and local level. It aims to empower community volunteers, health workers, medical doctors, EMTs and planners (http://heoc.mohp.gov.np/about-us/introduction/).

HEDMU has established the HEOC centrally which comes under the federal government. There are seven provincial governments, five of them have been operating a PHEOC and the remaining two have set up a temporary PHEOC whilst the provincial capital is confirmed. A 'Hub Hospital' approach has been in practice creating a functional network to support the emergency medical response. The hub hospital controls the mobilization of a rapid response team (RRT) and an emergency medical deployment team (EMDT) considered appropriate for the emergency response. The main responsibilities of the RRT are to establish a working case definition, research and prepare a list of the affected population and the types and mode of transmission of diseases related to the emergency. If appropriate they are responsible for managing the isolation and quarantine of infected and suspected cases respectively.

Following analysis of the epidemiology of the disaster the RRT submit a final report with their recommendations.

The EMDT concept was introduced in Nepal to enable a quick response by a designated team of medical doctors at hub hospitals. However, logistics planning, certified training, training of trainers, refresher training, ensuring quality emergency care and operation of ambulances requires strengthening to reach the minimum requirement of quality emergency medical care in Nepal, (WHO 2019) [11].

2.1 EMERGENCY CARE SYSTEM ASSESSMENT WORKING GROUP

A team of fourteen people, including HEMU and MoHP representatives were mobilized to collect survey responses from all provinces and at the central level taking three weeks to complete. Three methods were used to collect the data: Online, interview and paper. Team members were provided orientation on how to collect the data and enter it onto an online system. All the interview and paper-based data were entered at HEOC through the "Token Link" provided by WHO HQ. All the collected responses were submitted to the technical team of WHO HQ in Geneva.

Figure 1 Pathway from data collection to consensus workshop
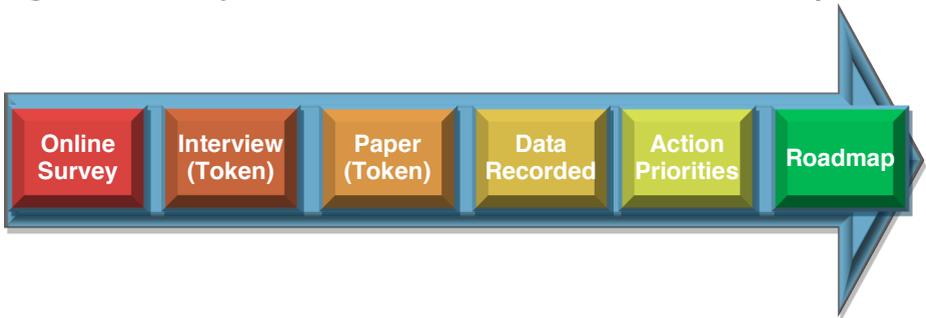
Given the potential to reduce death and disability in Nepal through improvements in emergency care, the Nepal Ministry of Health and Population (MoHP), in collaboration with WHO, undertook a system-level assessment using the WHO ECSA tool and organized a working group composed of local emergency care experts and other key stakeholders identified by MOHP and WHO.

These included the following:

- Ministry of the Health and Population
- Quality Standard and Regulation Division
- Epidemiology and Disease Control Division
- Nursing and Social Security
- Provincial Hospitals
- Zonal Hospitals
- District Hospitals
- Community Hospitals
- Primary Health Care Centers / Health Posts
- UNIOM
- UNICEF
- UNFPA
- Non-Governmental Hospitals
- International | Non-governmental Organization (INGO/NGO)
- Private Hospitals
- Universities / Academy of Medical Sciences
- Research Centers

Stakeholders were asked to complete the ECSA. One hundred and thirty-two key informants completed the full ECSA survey. The survey answers were aggregated, and the results analyzed. On 10 -11 December 2019, MoHP and WHO hosted a working group meeting to review the WHO ECSA results and establish consensus on all responses, identify gaps in the emergency care system and develop consensus-based action priorities for system development. For the discussion session, various chiefs of departments and divisions of MoHP chaired the panel. Action priorities were ranked by the group based on five domains: cost, impact, political will, urgency and time to execute based on a three-tier numeric scoring system. The results of the ranking exercise are shown in *list of prioritized actions across ECS domains* in the executive summary.

Steps followed for action priorities:

Figure 2 Group Discussion: Action Priorities Consensus Process
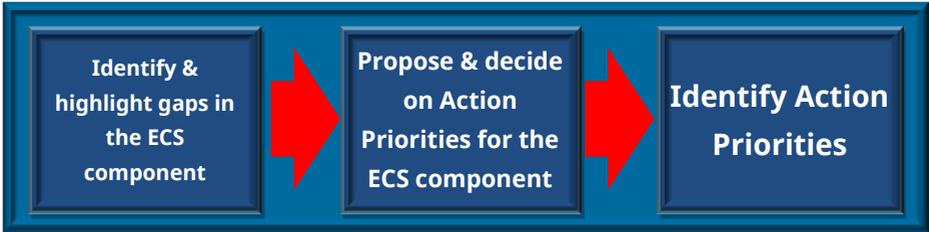
The following sections summarize the ECSA results and the discussions and conclusions of the ECSA working group. Action priorities for each of the ECS domains are listed under each section.

RESULTS OF THE WHO ECS ASSESSMENT AND DISCUSSION

3. Results of the WHO ECS Assessment and Discussion

3.1 System organization, governance and finance

The Health Emergency Operations Center (HEOC) is the lead agency for emergency care in the country; however, this agency does not govern the prehospital sector. The HEOC operates under the Secretary of Health and functions as a secretariat of the MoHP during health emergencies and disasters and as a high-level operational center of the MoHP's various divisions. There is no single overarching governing mechanism for the full spectrum of emergency care, from prehospital care through to facility-based care.

There is some emergency care in urban settings, though not adequate to population needs. There is no or minimal emergency care available in rural settings. Participants reported that in the short term, improved coordination between prehospital and facility-based lead agencies in MoHP could increase effectiveness and efficiency of the system overall. In the medium term, establishing a dedicated lead government agency at the national level with the authority to coordinate both prehospital and facility-based emergency care, with strong linkages to emergency response programs, is a top priority.

There is some legislation regarding access to emergency care services, but patients must pay out-of-pocket prior to receiving care. However, the constitution of Nepal states "Every citizen shall have the right to free basic health services from the State, and no one shall be deprived of emergency health services" (The Constitution of Nepal 2015). Additionally, participants noted several other policy documents reiterate this statement, and this covers migrants, refugees and other non-citizens.

The Nepal health sector strategy 2015-2020 does not explicitly cover prehospital, emergency unit, surgical or critical care. There is no funding scheme specifically for emergency care. Funding comes to public health authorities at each administrative level of government (53 local governments, 7 provinces, 1 federal). Allocations for emergency unit funding is at the discretion of facility administrators. All participants agreed that funding for facility-based emergency care is not adequate and that including a dedicated funding stream for emergency care should be a priority.

There is no government funded national health insurance scheme, but the Public Health Service Act 2018 (http://www.lawcommission.gov.np/en/wp-content/uploads/2019/07/The-Public-Health-Service-Act-2075-2018.pdf) states that no person can be denied emergency care by an ambulance or at a health facility: An emergency health service is described as "the initial and immediate service to be provided as it is necessary to free the lives of the persons from risk, save the lives or organs from being lost, whose lives are in the risky condition upon falling into unexpected incident or emergency condition." Surgical care is in the list of free services provided, but not part of the basic service package. Participants discussed the need to review existing lists of services related to essential emergency and trauma care already included in the benefit package under development. This also includes reviewing the public health insurance benefit package.

To date, there has been no comprehensive national status report on injury, road safety or emergency care except for a few key data points included in the annual Global Status Report on Road Safety. All participants felt that the development of a national status report on emergency care, coordinated by MOH, should be a key priority.

Action priorities:
System Organization, Governance and Finance

1. Develop a nation-wide status report (including all provinces) on emergency care (with WHO support), including burden of acute conditions and current status of everyday emergency care (HEOC and WHO)

2. Establish a clear mandate for a lead government agency to coordinate prehospital and facility-based emergency care, and to liaise with emergency response programs

3. Review WHO standards on essential emergency care services to ensure their inclusion in the development of the benefit package, including the public health insurance benefit package

4. Develop a bystander protection law

5. Develop regulation mandating initial emergency care prior to payment (including registration payment and co-pays)

6. Create and fund a dedicated budget stream for prehospital and facility-based emergency care

7. Develop a strategy for the establishment of a dedicated emergency fund at the federal, provincial and local level, to ensure everyday emergency care availability to all, and including incorporation of ECS strengthening into disaster and preparedness service expenditures

3.2 Emergency care data and quality improvement

No standardized prehospital or facility-based emergency care data on emergency conditions, management, and outcomes, are systematically gathered for use by policy makers for system planning. Facility level data are captured in a variety of formats using various variables. In general, participants noted that no data on the clinical management of patients was obtained. Aggregated data are submitted to HMIS focal points within MoHP, but these are not used for system planning or quality improvement initiatives. Clinical data are used for quality improvement, though only within individual facilities. Corrective strategies may be employed, but this is not documented and verified. There are no system -wide quality improvement programs. All participants agreed that the implementation of standardized clinical documentation in emergency units (whether this data is collected electronically or on paper) should be a top priority. Participants also noted that linkage of the facility-based record system with the prehospital record system is crucial.

Participants reported that some emergency units outside of Kathmandu use an electronic medical record (EMR). However, these systems are not compatible with other systems used by other departments of the same hospital. While EMRs provide a way to document and possibly easily extract information, it was noted that lack of synergy among the already existing systems within hospitals was challenging to navigate. Participants reported that development of an EMR for use in the emergency unit would be welcomed, provided the new system could be linked to systems already in use.

Clinical data are not routinely used for quality improvement (QI) purposes. However, some QI techniques and corrective strategies are in place at the facility level in the form of morbidity and mortality conferences, implementation of guidelines and protocols, educational rounds, and improvements to equipment and infrastructure. Prehospital leadership indicated morbidity and mortality discussions and chart reviews are conducted informally by the medical director with prehospital providers. All participants agreed that it is important to develop simple QI programs throughout the emergency care system. Several participants suggested the creation of a formal feedback mechanism from facilities and facility-based providers to prehospital providers. E.g. monthly/quarterly review meetings of all stakeholders.

Action Priorities:
Data and Quality Improvement

1. Implement WHO emergency and trauma care registry (with automated aggregation reporting) based on standardized data points embedded in the clinical chart, beginning with provincial and tertiary level healthcare providers

2. Establish a simple emergency care quality improvement program based on standardized checklists (Trauma Care Checklist) charts and registry

   - *WHO Standardized Clinical Form and complementary registry platform are available*

3. Develop system wide standards and protocols for key emergency unit processes (handover, formal triage, transfer, referral, admission, discharge) appropriate to the level of care (WHO tools available).

4. Establish a mechanism for the utilization of emergency care data in system planning efforts

3.3 Scene care, transport and transfer

There is no formal pre-hospital system in Nepal. Respondents estimated that most of the country's population do not have access to a prehospital ambulance that can provide timely on-scene emergency care and transport with a trained provider. This applied to both urban and rural settings.

The access number for emergency care services (ambulance) in Kathmandu is 102, and separate numbers exist to activate other emergency services in Kathmandu (100 for police and 101 for fire). This number (102) is not universal across the whole country. Large areas of the country do not have access to this. Participants felt that <25% of the population knows and can effectively use the emergency care service number (102) by memory. There is no formal legislation that mandates telephone companies to provide fixed line, mobile or payphone connection to emergency services for free. Nepal Telephone Authority (2016) has mentioned in a study report "112 can be used for emergency calls from mobile". All participants felt that establishment of one single, toll-free, three-digit, universal (nationwide) access number for emergency care services corresponding to international standards is necessary.

The 102 phone operators, run by the Nepal Ambulance Service (NAS), can dispatch emergency ambulance providers to the scene, provide basic clinical advice to bystanders, more detailed medical direction to the caller, field to facility communication, and locate the caller using automated GIS system in the Kathmandu valley. However, there is no national centralized dispatch system. Prehospital care is not governed by any national or system-wide protocol. There is no national supportive clinical advisory service (i.e., via staffed telephone) or medical guidance (i.e., written) to support prehospital care. There are no nation-wide destination triage protocols or systems. Decisions are made based on provider or patient preference. Facility designations, however, do exist (such -

as designated trauma centers and specialized hospitals); these designations are coordinate through MoHP. All participants felt that the development of national prehospital care protocols and supportive supervision systems are a key priority, and that a formal system of designating preferred destinations for certain groups of patients based on standardized criteria could reduce the time to needed care.

NAS employs personnel who are trained and certified emergency medical technicians or EMTs. EMT training is based on variable international standards. There is no process of formally, nationally certifying ambulance providers. Participants agreed that developing a standardized training and certification pathway for ambulance providers is a top priority.

There are ambulances to carry patients to medical facilities, but the number of ambulances is grossly inadequate for the needs of the population. This is the case both for scene to facility transport as well as inter-facility transport. There are no nationally agreed time targets for responding to the highest priority emergency calls. There is no process in place for healthcare facilities to communicate with one another regarding transfers. Neither referral nor transfer criteria are used when determining where patients should go. Patients are transferred between healthcare facilities based on individual decisions related to patient or provider preference. There are no protocols for prehospital provider handover to facilities (i.e. the process required when a pre-hospital provider delivers a patient to a facility). The development of standardized protocols for handover of patients from prehospital providers to facilities is felt to be a top priority.

Regulation regarding use of ambulances exists under the Ambulance Service Operation Guidelines-2017. It includes the three categories of ambulances, "A" consisting of Medical Doctor and EMT, "B" with EMT & "C" with a trained driver. But there is no explicit guideline for driver and care provider. Participants felt that advocacy is needed to the Ministry of Physical Infrastructure and Transport to amend existing national traffic laws/rules for ambulances and regulation of lights/sirens for civilian vehicles. These revisions were suggested to be incorporated into the National Ambulance Service Operation Guidelines.

There are no national regulations or policies regarding pre-hospital equipment. Participants noted that <25% of ambulances have adequate equipment to care for patients at the scene and during transport. There was consensus among the group that the development of system-wide standards for ambulance services (including clinical care protocols, staffing standards, equipment standards, process guidance, triage etc.) must be a priority. Additionally, participants felt that there is a need to revise the National Ambulance Services Operation Guideline to require inspection/verification of ambulances and monitor compliance to the guidelines.

There are no laws in Nepal to protect bystanders (Good Samaritan) who provide help to the acutely ill or injured. Participants indicated that in most cases people are willing to help at the scene of an acute injury or illness, but there are sometimes negative consequences for those who do so. Participants reported that introduction of such legislation is a priority to prevent potential risk caused to lay people from a formal lack of protection to bystanders.

There are some community-based basic first aid training courses for lay people through both the public and private sectors, but they are not widely available nor are they regulated. All participants agreed that developing a centrally coordinated process to agree upon both standards for the content of first aid training courses and on the trainer certification process should be a priority.

Action Priorities:
Scene Care, Transport and Transfer

1. Establish one single, toll-free, three-digit, universal (nationwide) access number for emergency care services corresponding to international standards (consider 112)

2. Develop prehospital care protocols and supportive supervision systems

3. Advocate to the Ministry of Physical Infrastructure and Transport for revision of existing national traffic laws for ambulances and lights/sirens for civilian vehicles, and incorporate into National Ambulance Operation Guidelines

4. Develop a formal prehospital system including centralized dispatch, destination triage, time targets for priority calls, field to facility communication, and mechanisms for supportive clinical guidance for the prehospital providers (protocols or advice line)

5. When the service is appropriately ready, develop a public education and dissemination campaign on the appropriate use of the emergency care access number

6. Establish a dedicated training and certification pathway for professional prehospital providers

7. Establish a mandate requiring that the universal access number be free on all fixed and mobile lines from all telecommunication companies

8. Implement a mechanism for monitoring with inspection/verification at regular intervals to strengthen the implementation and enforcement of the National Ambulance Operation Guideline 2018 including equipment standards

9. Establish central standards for content and certification of first aid trainings

10. Develop standardized protocols for handover of patients from prehospital providers to facilities

11. Develop standardized protocols for inter facility transfers and referrals of patients

3.4 Facility-based care

Respondents estimated that <25% of the population in Nepal, in both urban and rural settings, has 24-hour access to facility-based emergency care, defined as a dedicated emergency unit in which patients are I) seen by permanent non-rotating providers trained in emergency care II) formally triaged and seen in order of acuity and III) seen without a requirement for payment prior to care. Less than 25% of first level hospitals and between 25-50% of tertiary hospitals have emergency units meeting minimal functional criteria (are open 24 hours, have clinical staff continuously on site, and use an acuity-based triage protocol).

There are non-rotating providers that permanently staff the emergency unit (EU) at tertiary level hospitals (nurses only). In first-level hospitals, there are staff that register and direct patients in the emergency unit to inpatient areas, but minimal care is provided.

Providers who regularly care for emergency patients are not required to undergo emergency-specific training as part of initial or on-going certification in first level or tertiary level hospitals. There are no emergency-specific post-graduate degree courses for nurses (e.g. a Master's in emergency, trauma or critical care nursing). For doctors, emergency medicine training is completed as a sub-specialty after general practice. Specialty certification exists for critical care, orthopedics, and pediatric surgery. There is no trauma surgery specialty. Participants noted that the concept and term of "mid-level" provider in Nepal would be equivalent to "paramedics" in terms of skill level, but that developing a cadre of mid-level providers such as advanced nurses or physician assistants may be helpful.

First level hospitals do not have basic adequate functional equipment for airway management (including intubation), breathing interventions (including oxygen, bag-valve mask ventilation and mechanical ventilation), fluid resuscitation, vasoactive medications, oxygen saturation monitoring and cardiac monitoring in emergency units, but some tertiary level hospitals do.

There are no regulations and/or protocols mandating that acutely ill or injured patients be clinically triaged prior to being required to register. In practice, participants reported that depending on the time of day and the hospital, registration and triage may be done in different orders.

Few emergency units use standardized clinical protocols for the treatment of patients, and those that do vary greatly and may not be externally validated. Compliance with protocols is not tracked. Additionally, there are no initiatives at facilities to universally screen emergency patients for non-urgent conditions of public health importance such as HIV, exposure to violence, substance abuse, diabetes etc. All participants felt that system-wide protocols for emergency care (including clinical and process guidance protocols) for a core set of emergency conditions should be developed, and that screening for violence may be of interest.

There are no nationally agreed time targets for length of stay for EU patients, and no protocols for management of emergency unit throughput (to improve patient flow, such as ambulance diversion policies, overcrowding protocols, or "hold" orders for patients pending admission). Participants estimated that few (<25%) patients with an injury requiring emergent surgery have access to appropriate surgical care within two hours of injury.

There is one poison information center run by an NGO but no national or centralized poison control center with standardized protocols and 24-hour availability for clinicians and the public. Participants felt that this was important to create.

Action Priorities: Facility-Based Care

1. Develop a strategic plan for reducing overcrowding of emergency units, including consideration of length of stay limits and establishing overcrowding protocols

2. Develop domestic violence screening protocols for emergency unit patients, with linkage to OCMC

3. Develop a mechanism for regular communication of policies and procedures to clinical providers

4. Implement standardized clinical forms with embedded standard data points for emergency units (based on review of existing form and WHO template) and in the prehospital setting

   - *WHO templates available*

5. Incorporate emergency care elements into existing hospital accreditation standards

6. Develop system wide clinical protocols for emergency unit clinical management of key conditions appropriate to level.

7. Develop system wide standards and protocols for key emergency unit processes (handover, formal triage, transfer, referral, admission, discharge) appropriate to level of healthcare (WHO tools available).

8. Expand 24-hour availability of essential emergency laboratory services and timely results reporting at first-level and tertiary emergency units

9. Expand 24-hour availability of essential emergency radiology services and timely results reporting at first-level and tertiary emergency units

10. Expand postgraduate training programs in emergency medicine to other universities

11. Develop a strategy for a government-run national poison control center for providers and the public

3.5 Emergency preparedness and security

A State Party Self-Assessment Annual Reporting Tool (SPAR) has been completed in Nepal and a Joint External Evaluation (JEE) is planned for Q1 2021. Risk assessments are conducted for various pathogens/ situations (Ebola, Zika, influenza, floods), but a comprehensive strategic national emergency risk assessment has not been done. Inventories and maps of resources for emergency response are available and have been updated in the past five years, but they are done by individual sectors or agencies and are not linked at the national level.

There are no plans for management and distribution of national stockpiles of pharmaceuticals or protective equipment. There is a coordinated multi-hazard emergency response plan involving multiple necessary agencies with SOPs for core emergency response functions. However, there is no requirement for periodic evaluation and updating. A health sector emergency response coordination mechanism for emergencies including Public Health Emergencies of International Concern (e.g. emergency response committee) is in place. National EOCs can be activated within 120 minutes of receiving an early warning or information of an emergency requiring EOC activation. EOC plans, activation and functions at the national level have been tested and updated in the past two years. EOCs are available at the subnational level with plans and SOPs, resources and staff trained in EOC SOPs.

There is a system-level (national or regional) plan in place for large scale emergencies that specifically identifies a source for human resources, communications, supplies, space, alternate transport, additional equipment and infrastructure. There is also a system in place for activation and coordination of medical countermeasures and health personnel during a public health emergency.

Facility level multi-hazard emergency response plans are not required at first-level hospitals but are required at third level hospitals, except for chemical, biological and radiological weapons. There is no system in place for detecting and responding to radiological and nuclear emergencies.

Violence against emergency care staff and prehospital providers occurs intermittently. There are some facility-level security plans in place to protect staff, patients or infrastructure from violence. Participants stated that many hospitals have police or security to protect staff but there are no formal security protocols. Nepal is participating in "attacks on healthcare" monitoring and the cases are reported. All participants agreed that facility and prehospital security plans should be developed.

Action Priorities:
Emergency Preparedness and Security

1. Complete the creation and coordination of subnational EOCs as per current plan
2. Disseminate information about national emergency preparedness and response strategies to service providers
3. Establish facility-level security and safety protocols at each emergency unit to protect staff and infrastructure from violence
4. Develop security and safety protocols for emergency care personnel to protect from violence and risks in all settings
5. Incorporate chemical, biological, radiological emergencies into current emergency response plans
6. Expand emergency care staff training to include strategies to address violence in the workplace, including conflict resolution

Technical Committee Meeting on

WHO-GoN Emergency Care System Strengthening Project - Phase 1

NEXT STEPS

4. Next Steps

As outlined in this report, stakeholders used the WHO ECSA results to identify critical gaps in the emergency care system of Nepal and agreed on a set of actions for development of each component of the system. To facilitate further discussion on priority-setting within the Ministry and implementing partners, multiple parameters of the action priorities were discussed (cost, impact, political will, urgency and time to execute). At the conclusion of the ECSA meeting, all participants expressed enthusiasm and commitment for taking part in next steps, which will be to convene implementation partners to create a roadmap for action on these priorities.

Some of these action priorities can be implemented without substantial new resources by partners already working within the emergency care system. With engagement and coordination of the government, existing partners could provide much of the technical assistance, program development and piloting needed to operationalize the agreed upon priorities.

These priorities represent reasonable and feasible next steps in the development of Nepal's national emergency care system. Each of the action priorities above has the potential to significantly improve the emergency care system and the outcomes of acutely ill and injured persons countrywide. With technical support of WCO Nepal, the Ministry of Health and Population has decided to take necessary and initial steps for plan implementation.

Following on the assessment, selected key action priorities are being worked on through the WHO-Government of Nepal Emergency Care System Strengthening Project-Phase I.

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ANNEX

LIST OF MEMBERS OF TECHNICAL COORDINATION AND DATA COLLECTION TEAMS - ECSA - NEPAL

Composition of technical coordinating team:

Meeting held on October 4, 2019, which was chaired by Dr. Dipendra Raman Singh (Chief, QSRD/MoHP) made a decision to nominate the following representatives / members as Technical Team for Nepal-ECSA:

1. Coordinator: Dr. Dipendra Raman Singh, Chief/Quality, Standard and Regulation Division, MoHP
2. Member: Dr. Bibek Lal, Director, EDCD-DoHS
3. Member: Dr. Guna Nidhi Sharma, Senior Health Administrator, MoHP
4. Member: Focal point for hub-hospital, Curative Service Division, MoHP
5. Member: Pushkar Nepal, Law, MoHP
6. Member: Dr. Reuben Samuel, Team Leader, WHO WHE
7. Member: Mr. Ram Kumar Mahato, Public Health Officer, N-HEOC
8. Member: Mr. Durga Prasad Paudel, Section Officer, N-HEOC
9. Member: Dr. Kedar Marahatta, NPO, WHO
10. Member: Mr. Kamaraj Devapitchai, WHO Consultant
11. Member: Dr. Subash Neupane, WEDS Officer, WHO WHE
12. Member: Mr. Bimal Singh Bist, HEDMU / N-HEOC, Consultant
13. Member Secretary: Mr. Sagar Dahal, Chief/Health Emergency and Disaster Management Unit | N-HEOC, MoHP

Team Members Mobilized for Data Collection in-country:

1. Dr. Dipendra Raman Singh, Chief/Quality, Standard and Regulation Division, MoHP
2. Mr. Sagar Dahal, Chief/Health Emergency and Disaster Management Unit/ HEOC, MoHP
3. Dr. Guna Nidhi Sharma, Senior Health Administrator, MoHP
4. Dr. Reuben Samuel, Team Leader, WHO WHE
5. Mr. Ram Kumar Mahato, Public Health Officer, HEOC
6. Mr. Durga Prasad Paudel, Section Officer, HEOC
7. Dr. Kedar Marahatta, NPO, WHO
8. Mr. Bimal Singh Bist, Consultant, HEDMU/HEOC
9. Mr. Kamaraj Devapitchai, WHO Consultant
10. Dr. Subash Neupane, WEDS Officer, WHO WHE
11. Mr. Sanjeeb Gautam, HEOC, IMA, HEDMU/HEOC, MoHP
12. Dr. Meika Bhattachan, WHO WHE
13. Dr. Rajeeb Lalchan, PHEOC, WEDS Officer, Gandaki Province
14. Dr. Kiran Bastotal, PHEOC, WEDS Officer, Karnali
15. Mr. Ajit Das Maharjan, PHEOC, IMA, Sudurpaschim Province
16. Mr. Shankar Adhikari, PHEOC, IMA, Gandaki Province

LIST OF PARTICIPANTS IN THE ECSA - NEPAL STAKEHOLDERS CONSULTATION

Group A Service Enablers			
Province	Name	Agency	Designation
Central Level	Mr. Khag Raj Baral	Ministry of Health and Population	Secretary
Central Level	Dr. Dipendra Raman Singh	Quality Standard and Regulation Division, MoHP	Chief
Central Level	Mr. Mahendra Shrestha	Health Coordination Division	Chief
Central Level	Mr. Bhogendra Raj Dotel	Management Division, Department of Health Service	Director
Central Level	Dr. Bikash Devkota	Planning, Policy and Monitoring Division	Chief
Central Level	Dr. Bibek Lal Karna	Epidemiology Disease Control Division, MoHP	Director
Central Level	Dr. Tara Natha Pokhrel	Curative Service Division, Department of Health Service	Chief
Central Level	Ms. Roshani TuiTui	Nursing & Social Security, Ministry of Health and Population	Director
Central Level	Mr. Sagar Dahal	Health Emergency and Disaster Management Unit	Chief
Central Level	Dr. Guna Nidhi Sharma	Policy and Planning Division, Ministry of Health and Population	Officer
Central Level	Ms. Yeshoda Aryal	Health Coordination Division, Ministry of Health and Population	Senior Public Health Administrator
Central Level	Mr. Rajmani Niraula	Ministry of Health and Population	Officer
Central Level	Dr. Prakash Brd.	Curative Service Division, Department of Health Service	Focal Point
Central Level	Mr. Amrit Pokharel	Curative Service Division, Department of Health Service	Focal Point
Central Level	Dr. Dinesh K. Lamsal	Civil Service Hospital	Emergency In-charge
Central Level	Mr. Shambhu Kafle	Ministry of Health and Population	Senior Public Health Administrator
Central Level	Mr. Tulsi Prasad Dahal	Ministry of Health and Population	Officer

Province	Name	Agency	Designation
Central Level	Mr. Krishna Lamsal	Ministry of Health and Population	Senior Public Health Administrator
Central Level	Mr. Arun Kumar Khatri	Ministry of Health and Population	Officer
Central Level	Dr. Naveen Phuyal	Nepal Army Medical College	Focal Point
Central Level	Mr. Khem Raj Dhungana	Curative Service Division, Department of Health Service	Staff
Central Level	Mr. Ram Kumar Mahato	Health Emergency and Disaster Management Unit	Officer
Central Level/ Stakeholder	Dr. Pragati Thapa	Norvic Hospital	Focal Point
Central Level/ Stakeholder	Dr. Buodani Pandey	Norvic Hospital	Focal Point
Central Level/ Stakeholder	Mr. Kamraj Devipitchai	WHO Country Office	WHO WHE
Central Level/ Stakeholder	Mr. Hari Karki	UNFPA	Focal Point
Central Level	Dr. Kedar Marathha	WHO Country Office	WHO WHE
Central Level	Mr. Bimal Singh Bist	Health Emergency and Disaster Management Unit	WHO WHE
Central Level	Mr. Bharat Raj Bhatta	Curative Service Division, Department of Health Service	Staff
Central Level	Dr. Radheshyam K.C	UNIOM	Focal Point
Central Level	Ms. Alisha Joshi	Nepal Injury Research Centre	Professor / Researcher
Central Level/ Stakeholder	Dr. Jos Vandelaer	WHO Country Office	WHO WHE
Central Level/ Stakeholder	Dr. Reuben Samuel	WHO Country Office	Team Leader
Central Level/ Stakeholder	Dr. Subash Neupane	Health Emergency and Disaster Management Unit	WHO WHE
Central Level/ Stakeholder	Ms. Sajeeb Gautam	Health Emergency and Disaster Management Unit	WHO WHE
Central Level/ Stakeholder	Mr. Pitamber RM	WHO WHE	Staff
Central Level/ Stakeholder	Ms. Anchal Lakhu	WHO WHE	Trainee
Province 1	Prof. Gyanandra Malla	B.P. Koirala Institute of Health Sciences (BPKIHS)	Professor / Researcher

Province	Name	Agency	Designation
Province 2	Mr. Vijay Kumar Jha	Regional Health Directorate, Province 2	Senior Public Health Administrator
Province 3	Mr. Lalbabu Ray	Regional Health Directorate, Province 2	Officer
Province 3	Ms. Sanju Roy	Ministry of Social Development, Hetauda	Officer
Province 3	Mr. Gokarna Mani Du-wadi	Ministry of Social Development	Secretary
Province 3	Ms. Sanu Maya Dangol	Lalitpur Metropolitan City, Fire Fighter Department	Focal Point
Province 3	Dr. Ram Hari Regmi	Gajuri Municipality, Dhading	Focal Point
Province 3	Mr. Khem Bhusal	District Administrative Office, Lalitpur	Officer
Province 3/ Stakeholder	Dr. Saradha Prasad Wasti	Green Tara Nepal	Professor / Re-searcher
Province 3/ Stakeholder	Ms. Sharada Barakoti	EpiNurse	Focal Point
Gandaki Province	Mr. Baburam Acharya	Provincial Health Directorate	Officer
Gandaki Province	Ms. Bhagwati Sedai	PN Campus Lecturer, Road safe-ty	Professor / Re-searcher
Province 5	Ms. Asma Gyawali	Gautam Buddha Community Heart Hospital, Butwal	Nursing Officer
Province 5	Mr. Gopal Prd. Gautam	Lab Office, Butwol	Officer
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Karnali Province	Mr. Shyamlal Acharya	Ministry of Social Development	Focal Point
Karnali Province	Dr. Pujan Rokaya	Karnali Academy of Health Sci-ences	Director
Sudurpaschim Prov-ince	Dr. Jagadish Joshi	Seti Zonal Hospital	Focal Point
Group B Service Providers			
Central Level	Dr. Navin Phyyal	Birendra Hospital	Focal Point
Central Level	DSP Prabhu Dhakal	Nepal Police Central Disaster Management Division	Focal Point
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Province	Name	Agency	Designation
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Central Level/ Stakeholder	Mr. Bipul Khanal	Nepal Red Cross Society	Emergency Incharge
Central Level/ Stakeholder	Mr. Ganesh Kumar Jimee	National Society for Earthquake Technology	Director
Central Level/ Stakeholder	Ms. Manisha Panthee	National Society for Earthquake Technology	Director
Central Level/ Stakeholder	Prof. Ramesh K. Maharjan	Trivhuvan University Teaching Hospital	Professor / Researcher
Central Level/ Stakeholder	Dr. Rashmisha Majarjan	Nepal Disaster and Emergency Medicine Center	Focal Point
Province 1	Mr. Chandradev Meheta	Provincial Health Directorate	Director
Province 2	Dr. Chumanlal Das	Gajendra Narayan Singh Sagarmatha Zonal Hospital	Chief
Province 2	Mr. Harish Chandra Shah	Provincial Health Directorate	Director
Province 3	Prof Dr. Yogendra Man Shakya	Trivhuvan University Teaching Hospital	Director
Province 3	Dr. Ashis Shrestha	Patan Academy of Health Sciences	Emergency Incharge
Province 3	Ms. Mana Kumari Ghale	Teaching Hospital	Nursing Officer
Province 3	Mr. Ramesh Adhikari	Province Health Directorate	Director
Province 3	Mr. Hiralal Tamrakar	Good Neighbors Nepal	Trainer
Gandaki Province	Mr. Arjun Bhandari	NID	Officer
Province 3/ Stakeholder	Mr. Patrick Banke	Nepal Medics/Dhading	Trainer
Province 3/ Stakeholder	Ms. Prativa Tripathi	Good Neighbors Nepal	Trainer

Province	Name	Agency	Designation
Gandaki Province	Mr. Arjun Bhandari	NID	Officer
Province 3/ Stakeholder	Mr. Patrick Banke	Nepal Medics/Dhading	Trainer
Province 3/ Stakeholder	Ms. Prativa Tripathi	Good Neighbors Nepal	Trainer
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Karnali Province	Mr. Ramjit Kahar	Provincial Health Training Center	Staff
Karnali Province	Dr. Sojan Sapkota	Provincial Hospital, Surkhet	Emergency Incharge
Karnali Province	Dr. Nirmal Nagarkoti	District Hospital Mugu / DPHO	Director
Sudurpaschim Province	Dr. Naresh Shreatha	Dadeldhura Hospital	Emergency Incharge
Sudurpaschim Province	Ms. Seema Shrestha	Seti Zonal Hospital	Officer
Sudurpaschim Province	Mr. Shiv Raj Sunar	Health Office, Kanchanpur	Focal Point
Sudurpaschim Province/ Stakeholder	Mr. Bir Bahadur Nepali	United Mission to Nepal	Focal Point
Province 3/ Stakeholder	Mr. Ranu Malla	WTO	Officer
Province 3/ Stakeholder	Mr. Kiran Khadka	FANSEP	Officer
Province 3/ Stakeholder	Mr. Ram Mani Neupane	Ministry of Agriculture and Livelihood	Officer
Province 3/ Stakeholder	Dr. Teri Reynolds	WHO HQ Geneva	Facilitator
Province 3/ Stakeholder	Dr. Pryanka Relan	WHO HQ Geneva	Facilitator

SCHEDULE OF THE STAKEHOLDERS CONSULTATION ON ECSA - NEPAL

STAKEHOLDER CONSULTATION ON
DEVELOPING CONSENSUS-BASED ACTION PRIORITIES FROM
THE RESULTS OF THE WHO EMERGENCY CARE SYSTEM ASSESSMENT SURVEY IN NEPAL
Kathmandu, Nepal | 10-11 December 2019 (Mangshir 24-25, 2076)
DAY 1: Tuesday 10th December 2019

MC: Mr. Ram Kumar Mahato

Session	Time	Activities		Responsibility
	0800-0900	Registration & Breakfast		
Inaugural Session	0900-0930	Program Chair: • Secretary, MoHP Guests: • Dr. Roshan Pokharel, Director General, Department of Health Service, MoHP • Ms. Indu Ghimire, Chief, Disaster, MoHA • Mr. Mahendra Shrestha, Chief Coordination Division, MoHP • Dr. Dipendra Raman Singh, Chief, Quality Standard and Regulation Division, MoHP • Dr. Jos Vandelaer, WHO Representative • Dr. Teri Reynolds, ECSA - Lead Facilitator, WHO HQ		Moderator: Dr. Kedar Marahatta, WHO
	0930-0945	**Welcome, Objective and Sharing on Current state of Emergency Care in Nepal**		Mr. Sagar Dahal, Chief, HEDMU, MoHP
	0945-1000	**Brief on WHO Emergency Care System Assessment Process**		Dr. Teri Reynolds, WHO HQ
	1000-1030	Remarks: • Dr. Jos Vandelaer, WHO Representative • Dr. Roshan Pokharel, DG DoHS, MoH • Ms. Indu Ghimire, Chief, Disaster and Conflict Management Division, MoHA • Dr. Dipendra Raman Singh, Chief, QSRD, MoHP • Mr. Mahendra Shrestha, Chief, CD, MoHP • Closing Remarks: Secretary, MoHP		
	1030-1100	Tea and Coffee break		
Technical Session I		**System Organization, Governance and Finance** Session Chairs: Dr. Taranath Pokheral, Director, Curative Service Division, MoHP Mr. Mahendra Shrestha, Chief, Health Coordination Division, MoHP		
	1100-1130	Plenary: Review and Discussion on ECSA Responses (13 questions)		Dr. Teri Reynolds
	1130-1200	Group Discussion:	Service Enablers	Dr. Teri Reynolds & Dr. Reuben Samuel
			Service Providers	Dr. Pryanka Relan & Dr. Kedar Marahatta
	1200-1230	• Plenary Presentation of Group Work by Service Enablers • Additional inputs by Service Providers Group		Session Chairs
	1230-1330	Lunch Break		
Technical Session II		**Data and Quality Improvement** Session Chairs: Dr. Bikash Devkota, Chief, Policy and Planning, MoHP Dr. Chumanlal Das, Sagarmath Zonal Hospital		
	1330-1345	Plenary: Review and Discussion on ECSA Responses (6 questions)		Dr. Teri Reynolds
	1345-1415	Group Discussion:	Service Enablers	Dr. Teri Reynolds & Dr Reuben Samuel
			Service Providers	Dr. Pryanka Relan & Dr. Rajan Rayamajhi
	1415-1430	• Plenary Presentation of Group Work by • Service Enablers • Additional inputs by Service Providers Group		Session Chairs
	1430-1450	Tea and Coffee Break		

Session	Time	Activities	Responsibility
		Scene Care, Transport. Transfer and Referral Session Chairs: Ms. Roshani Laxmi Tui Tui, Director, Nursing and Social Security Division, DoHS Prof. Yogendra Man Shakye, Director, Emergency Department, TUTH	
Technical Session III	1450-1550	Plenary: Review and Discussion on ECSA Responses (26 questions)	Dr. Teri Reynolds
	1550-1630	Group Discussion: Service Providers	Dr. Teri Reynolds & Dr, Reuben Samuel
		Service Enablers	Dr. Pryanka Relan & Mr. Bimal Bist
	1630-1700	• Plenary Presentation of Group Work by Service Providers • Additional Inputs by Service Enablers Group	Session Chairs
Day 1 Review	1700-1715	Review of Action Priorities from Day 1	Dr. Teri Reynolds

DAY 2: Wednesday 11th December 2019

MC: Mr. Ram Kumar Mahato

Session	Time	Activities	Responsibility
	0800-0900	Registration and Breakfast	HEDMU & WHE-WCO
Curtain raiser Day 2	0900-0930	Recap of Day 1	One of the participants
		Introduction to Day 2 Agenda	Dr. Pryanka Relan
		Facility-Based Care Session Chairs: Dr. Guna Nidhi Sharma, Policy & Planning Division, MoHP Prof. Pradeep Vaidya, TUTH	
Technical Session IV	0930-1100	Plenary: Review and Discussion on ECSA Responses (26 questions)	Dr. Teri Reynolds
	1100-1130	Tea and Coffee Break	
	1130-1230	Group Discussion: Service Providers	Dr. Teri Reynolds & Dr. Rajan Rayamajhi
		Service Enablers	Dr. Pryanka Relan & Dr. Kedar Marahatta
	1230-1300	• Plenary Group Presentation of Group Work by Service Providers Group • Additional Inputs by Service Enablers Group	Session Chairs
	1300-1345	Lunch Break	
		Emergency Preparedness Session Chairs: Dr. Bibek Kumar Lal, Director, EDCD, DoHS Prof. Ramesh Kumar Maharjan, TUTH	
Technical Session V	1345-1410	Plenary: Review and Discussion on ECSA Responses (11 questions)	Dr. Teri Reynolds, WHO
	1410-1430	Group Discussion: Service Enablers	Dr. Teri Reynolds, WHO Dr. Reuben Samuel
		Service Providers	Dr. Pryanka Relan Dr. Rajan Rayamajhi
	1430-1500	• Plenary Presentation of Group Work by Service Enablers • Additional Inputs by Service Providers Group	Session Chairs
	1500-1515	Tea and Coffee break	
Closing Session	1515-1525	Program Chair: Dr. Dipendra Raman Singh (Chief, QSRD, MoHP) and Mr. Sagar Dahal (Chief, HEDMU, MoHP) Guests: • Division Chief/s • Director/s • Chief, HEDMU • Dr. Jos Vandelaer, WHO Representative • Dr. Teri Reynolds, WHO HQ	Moderator: Dr. Rajan Rayamajhi, WHO
	1525-1625	• Review and Ranking of Action Priorities • Next Steps and Way Forward	Dr. Teri Reynolds, WHO

Session	Time	Activities	Responsibility
	1625-1700	Remarks: • WHO Representative • Dr. Teri Reynolds • Chief, HEDMU • Director/s • Division Chief/s • Closing remarks by Program Chair and Vote of Thanks	

नेपाल सरकार
स्वास्थ्य तथा जनसंख्या मन्त्रालय

World Health Organization

आकस्मिक सेवा प्रणालीको ढाँचा

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- शल्यचिकित्सा
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