Needs Assessment for the Establishment and Functioning of Emergency Medical Teams (EMT) in Georgia

Final Report

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Contents

Abbreviations

ASB	Arbeiter-Samariter-Bund
EVD	Ebola Virus Disease
ECHO	European Civil Protection and Humanitarian Aid Operations
EMSC	Georgian Emergency Situations Coordination & Urgent Assistance Center
EMT	Emergency Medical Team
EMT CC	EMT Coordination Cell
EOC	Emergency Operation Center
EOC-NET	Public Health EOC Network
EU	European Union
IDP	Internally Displaced Persons
IHR	International Health Regulations
KI	Key Informant
KII	Key Informant Interview
LEPL	Legal Entity of Public Law
MIA	Ministry of Internal Affairs
MIDPOTLHSAG	Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia
MDS	Minimum Data Set
NCDC	National Center of Disease Control and Public Health
NGO	Non-governmental organization
PPE	Personal Protection Equipment
RKI	Robert Koch Institute
SOD	Sudden Onset Disaster
SOP	Standard Operation Procedure
UN	United Nations
US	United States
WHO	World Health Organizations

Background

Arbeiter-Samariter-Bund (ASB) is one of the biggest and oldest German aid and welfare organizations with more than one million members. Since its founding in 1888, ASB has acted as a politically and denominationally independent association. With its first international mission in 1921, the area of foreign aid became an integral part of the organization. Currently ASB has 11 foreign offices and implements programs in more than 20 countries. ASB, through its officially registered country office in Georgia implemented several EU, German and US government funded projects related to: inclusive disaster risk reduction, providing social services, improving economic conditions, re-socializing former prisoners, confidence building, as well as humanitarian assistance to IDPs, conflict affected population and other vulnerable groups. Since February 1, 2021 ASB has begun implementing the project "***Stronger together – cooperative action to respond to cross-border emergencies"*** funded by Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO). Overall, the objective of the action is to enhance the disaster risk management system with a special focus on health emergencies in Georgia through capacity building and establishing cross border cooperation mechanisms. The duration of the project is 24 months (February 2021 - January 2023).

Goal of the study

The needs assessment was conducted in order to comprehensively analyze how Emergency Medical Teams (EMT) can function in Georgia. This assessment was undertaken in accordance with WHO certification standards for EMTs. More specifically the assessment evaluated:

- Existing human, infrastructural and legal resources;
- The gaps and/or bottlenecks related to infrastructural arrangements, standard operating procedures and existing HR procedures for EMTs;
- What is needed to establish effectively functioning EMTs with the aim of providing an elaborate plan of how to do so.

Based on the findings of this study, the Arbeiter-Samariter-Bund's Georgia office will provide EMT`s Standard Operational Procedures (SOPs), an Action Plan and corresponding guidelines.

Study Design and Methodology

In order to achieve the above mentioned goal and objectives, the needs assessment methodology deployed a mix of research methods and analytical approaches to account for the complexity of the research subject. The Needs Assessment was carried out in three phases:

a) Desk phase
b) Field phase
c) Synthesis phase.

Desk phase

The first stage of study was the Desk Phase which was key to getting a better understanding of internationally recognized certification standards, regulations, and procedures around EMT. The Desk Phase provided solid ground for the later stages of the study particularly in identifying key stakeholders interviewed during the Field Phase, the development of a comprehensive list of survey questions for the Key Informant Interviews (KII), as well as informing the study design, the content and the structure of the KIIs guide. During the Desk Phase, the research team thoroughly evaluated and analyzed documents supplied by the ASB's Georgia office. Annex 1 provides a comprehensive list of literature studied during the desk study.

Field Phase

The second phase of study was the field phase that covered qualitative research using KIIs. During the field phase, a comprehensive list of Key Informants (KIs) as well as the KII guide was elaborated in close cooperation with client and informed by the results obtained during the Desk Phase preceding the Field Phase of the Needs Assessment.

Survey instrument

During the second phase of study, the draft version of the qualitative survey questionnaire was elaborated and sent to the Client for comments and review. The final version of KII guide was elaborated in close cooperation with ASB. The utilization of KIIs guides for the fieldwork was carried out after the final review and confirmation from the client. The survey questionnaire itself was very comprehensive aiming to provide information about every aspect of EMT operation. It contained open-ended questions with pre-elaborated probes and covered several themes including:

- EMT workforce;
- SOPs;
- Logistical support and security procedures;
- Equipment and consumables;
- Physical accessibility of field hospitals and space requirements;
- Patient management;
- Information gathering and management;
- Emergency response research;
- Policy implications.

The qualitative survey questionnaire utilized for this particular study is given in Annex 2, while Annex 3 provides information about the interviewed KIs. During the field phase, several versions of survey questionnaires were prepared including questions for different stakeholders. Annex 2 contains two major versions of KII guide. The first one was elaborated for Georgia focal point which was perceived to be the most informed KI knowing both the national and international context; the second KII guide was elaborated for other KIs and stakeholders.

The Field Phase in Georgia covered 10 interviews in sum and the average duration of each interview was 75 minutes. Interviews have been audio-recorded following the informed consent of respondents

and thematic write-ups have been elaborated based on them. The first interview was carried out with focal point Georgia - the overall picture and insights into the process were provided. Following the first interviews, a small debriefing session to study team and client was organized with the aim of summarizing the findings, reviewing the instruments and sharing the lessons from the process.

Synthesis Phase

The last stage of study was the Synthesis phase which incorporates and triangulates the information obtained through the desk study and KIIs, formulates the main findings about EMTs and elaborates the recommendations on how to tackle potential difficulties or gaps in the process.

This mechanism not only facilitated validation of obtained data through cross verification from various sources but also had an added value for the in-depth interpretation of the results.

Executive summary

The needs assessment for the establishment and proper functioning of Emergency Medical Teams (EMT) in Georgia was carried out within the framework of the project "Stronger together – cooperative action to respond to cross-border emergencies" implemented by Arbeiter-Samariter-Bund's (ASB) Georgia office and funded by the Directorate-General for European Civil Protection and Humanitarian Aid Operations (ECHO) with the aim of improving the disaster risk management system, as well as placing a special focus on health emergencies in the country. The study aimed to evaluate existing needs around EMT and its function in Georgia. For this goal, the following tasks have been identified: (1) assessment of existing human, infrastructural, legal resources; (2) revealing gaps and/or bottlenecks related to infrastructural arrangements, standard operating procedures and existing HR procedures for EMTs; (3) elaboration of recommendations for establishment and effective functioning of EMTs. The study was carried out with the combination of qualitative (in-depth interviews) and desk study methods.

EMT initiative

Following the responses to Sudden Onset Disasters (SODs), it was observed that the deployed medical teams had different medical and technical capabilities which had the potential to influence the delivery of care on the ground. Therefore, WHO started standardizing emergency medical teams, which provided a humanitarian concept to the international community and helped countries enforce and improve their mechanisms of disaster risk management and coordination. The first classification system was published in 2013 and it was revised in 2021. According to the new system, EMTs deploying internationally need to go through the classification process in every 5 years. The 2021 Blue Book provides 3 types of emergency medical teams: EMT type 1 (mobile or fixed) provides outpatient emergency care, EMT type 2 provides inpatient emergency care, EMT Type 3 provides inpatient referral care and additional specialized team providing experts without heavy equipment. According to country specific capacity and context, Georgia plans to create EMT type 1 fixed.

Georgia – the country in context

According to the desk study findings, geological and tectonic characteristics make Georgia prone to disasters and other seismologic events. It worth noting that SODs frequently occur in areas where there is scarce or no access to medical facilities to provide outpatient care. In addition, it was mentioned that the political situation in the South Caucasus is not stable and hostilities or the prospect of them exist close to the Georgian borders; hence, the need for emergency medical teams is not only national but regional as well.

The qualitative study findings suggest that establishing EMT in Georgia requires a large effort and many resources; hence, particular considerations need to be made during the initial phase. Study participants reported that the successful establishment of EMT requires will from the decision-makers to establish such a structure, a definition of its location, the elaboration of a clear structure and the determination of functions in order to avoid the duplication of activities among different agencies, the financial

commitment, the establishment of an effective system of managing a pool of volunteers, determining the geographic scope of activities as well as considerate advocacy. In the Georgian context, it has already been decided that EMT will be created and act within the Georgian Emergency Situations Coordination & Urgent Assistance Center (EMSC). The country does not have any legislative obstacles for the establishment of EMT and there is no risk of functions overlapping; it has been determined that Georgian EMT will respond to national and regional health emergencies; in addition, it is expected that ASB`s project and EMSC medical equipment will provide enough funding for the establishment of EMT; however, advocacy is needed in order to bring more clarity to how the structure will be funded in the long run.

EMT workforce

WHO certification standards suggest that EMT teams need to be composed of both medical and logistical/technical staff. WHO standards provide clear guidance about the composition of team and the list of services they are expected to provide. According to the qualitative survey respondents, Georgia aim to have a team of 21-23 individuals; country does not anticipate any major obstacles in terms of recruitment and the mobilization of EMT medical staff. It is expected that EMT members will be selected from the EMSC database which comprise about 4000 medical staff in total. WHO does not provide strict guidelines about the qualification of EMT members. The experiences of other countries show that key requirement for EMT membership is relevant medical education (doctors, nurses, paramedics) and respective working experience. Georgia plans to introduce requirements for relevant medical education and experience in emergency responses and the delivery of medical aid in real life conditions. Because Georgia already has specialists who are interested in engaging in the EMT initiative, there are no expected challenges in terms of recruiting or mobilizing medical staff. However, because this field requires possessing a wide range of skills, it is anticipated that selecting the right logistical and assistive staff might be challenging.

International experience shows that significant part of EMT operation is based on the roster of volunteers. Findings suggest that maintaining a roster of volunteers is very challenging and requires an incredible amount of effort. The findings suggest that EMT membership is often not remunerated and depends upon volunteering. Due to the fact that Georgia does not have a strong volunteer culture, it is therefore deemed necessary to financially compensate EMT participants and members as well as provide a package of social benefits, which potentially could increase the engagement. No more findings have been made within this study regarding benefits and compensation. International experience shows that countries put a strong emphasis on transparency, consistent communication and inclusion; it is therefore recommended to organize additional trainings and meetings that are interesting for members and develop an overall bottom-up system where EMT will react to and engage with the ideas of members. In addition, EMT membership requires formal recognition. Based on international practices, it is recommended that EMT members and their employers sign memorandums which will contain records about their commitment and the benefits of their participation.

WHO standards urge countries to provide effective preparatory training and retraining for their EMT members. According to the qualitative study findings, training EMT members will be carried out under the training center of EMSC. The experiences of other countries show that training modules are developed around various themes. Countries usually put a strong emphasis on induction trainings which inform volunteers about the humanitarian aid initiative and system. Usually, induction training

is an instrument used to decide whether the volunteer suits the system, however ultimately EMT coordinators make decisions on which volunteers will be deployed. International practice shows that EMT training curriculums need to be constantly reviewed and should always reflect new scientific, technological experiences and lessons learnt from the previous activities. In terms of capacity building, qualitative study participants have mentioned that international simulation exercises and twining partnerships provided by the German Robert Koch Institute (RKI) are very important tools needed to increase team capacities overall.

Legislative framework

In terms of legislative adaptations, the qualitative and desk study findings illustrated that establishing EMT require legislative recognition. As the structure will act under the established Legal Entity of Public Law (LEPL) - Georgian Emergency Situations Coordination & Urgent Assistance Center (EMSC), the changes in the subordinate normative acts need to be considered and it does not require a separate governmental decree. According to the findings, amendments need to be made in the statute of the Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia (MIDPOTLHSAG), the statute of EMSC, and an annual governmental decree that approves the emergency health programs. The qualitative study findings suggest that there are no legislative obstacles for establishing a functioning EMT; however, it is recommended to review the governmental decrees and legislation regulating the emergency response mechanisms including Decree of the government of Georgia No508 - the National Civil Security Plan and Law on Public Safety in order to improve the existing system, make them more responsive to health emergencies and increase the legitimacy of EMT itself.

EMT activation

The study findings demonstrate the importance of developing an activation plan and procedures as well as allocating individuals who are responsible for making decisions regarding the established EMT. The qualitative study findings suggest that there is not made decisions and final agreements about the allocation of individuals responsible for the national or international activation of EMT. However, national focal point of Georgia has assumptions who could be that individuals and what kind of decision-making is required for each type of activation. According to KIIs, the decision about the national activation of EMT can be made by the Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia or the head of EMSC. For national activation, it is also important that current response plans include records about which level of emergency and indicators require activation of EMT. In contrast, decisions about international deployment can be made at a much higher level as it is not only a strategic and political decision, but activating a medical response on international level requires a large amount of resources. According to the findings, the decisions about international engagement is possible to be made by the Coordination Council operating under the Government of Georgia, Minister or Deputy Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia. They have enough legitimacy to make such a strategic decisions and allocate the resources for its enforcement.

In this case, Georgia aims to request assistance by asking for the activation of foreign EMTs. Country can directly approach partners, process the request via a virtual authority platform or through

international organizations like WHO, EU, UN, etc. The request for assistance should include information about the field of expertise needed under EMT; before the departure, activated and mobilized EMT needs a final approval from the affected country to enter the state.

EMT mobilization

The system of EMT requires teams on a stand-by regime. Moreover, national deployment envisages the maintenance of a well-managed roster of volunteers and a warehouse; while international deployments require more preparation compared to national deployments, they also have increased bureaucratic challenges; namely, teams may face visa issues, difficulties with obtaining temporary medical licenses and issues with customs. According to the respondents, government-based EMTs face less bureaucratic challenges than Non-Governmental Organization-based (NGO) EMTs as they can receive immediate support from ministries and embassies. In order to avoid visa issues, it is recommended to periodically communicate with volunteers to ensure they have valid passports. In terms of temporary medical license and customs, it was reported that the preliminary evaluation of regulations in countries is very important. Some countries do not require temporary medical licensing from internationally classified EMTs, while others do have such demands. Usually medical licenses are also part of overall acceptance and in the event that it will be a requirement, MIDPOTLHSAG can provide an official letter that doctors are working specialists, focal points can share the list of specialists to the country and temporary licenses can be issued on site and/or the doctors can have copies of their medical sciences translated into English which can be prepared by the EMSC in advance.

With regard to customs, it is recommended to get to know the customs regulations of requesting countries, particularly, about prohibited medications, correctly separating dangerous and non-dangerous goods, and including a list of equipment that should fit within the logistics handed to customs. In the event that the customs clearance takes a longer amount of time than originally expected, the EMT Coordination Cell (EMT CC) created in affected country following SOD can provide support to facilitate the process. Besides bureaucracy, the experiences of other countries illustrated that successful mobilization depends upon a clear activation system. During preparatory trainings, volunteers need to be informed that statements of availability should express not only their personal will but should also imply that support from employers is received, personal needs are taken into considerations and they are available for two weeks.

EMT coordination

According to both the qualitative and desk findings, EMT operation requires a strong coordination mechanism which might be different for national and international responses. International deployments require the permanent involvement of the Ministry of Foreign Affairs and Georgian embassies abroad, while national responses require inter-agency coordination including the Ministry of Internal Affairs (MIA), Ministry of Defense, National Center of Disease Control and Public Health (NCDC), and more. During the emergency crisis, EMT CC will be temporarily created under the emergency headquarter established under the MIDPOTLHSAG. The qualitative study findings suggest that establishment of EMT CC requires the experts with special trainings who are usually mobilized via international invitations. KIIs suggest that Georgia has only one such specialist and Georgia do not have a capacity to establish EMT CC independently; hence, international cooperation mechanisms will be utilized to invite EMT CC expert and engage in coordination of emergency response. Qualitative

and desk study findings suggest that EMT CC is instrumental to coordinate the response and liaison EMT with local organizations and international coordination groups with capacity to increase the efficiency of response. The desk study findings illustrated that EMT CC can receive the support from Public Health EOC Network (EOC-NET) acting under the WHO. EOC-NET works on the capacity building of national EOCs and helps countries in management of response upon the acceptance or request of government of affected country. The qualitative study findings generally suggest that international organizations can play a crucial role in mobilization of foreign EMTs; they can fund the deployments, facilitate the exchange of information between affected country and EMTs responding to the request, provide the humanitarian assistance in order to reinforce the performance of teams deployed on the ground.

The study findings suggest that EMT CC will be the main structure coordinating the EMT operations during the crisis including tasking, information gathering, monitoring and reporting, and planning the following steps. It can also coordinate the support provided by international organizations to the teams and it is intermediary between organizations and teams. For monitoring and reporting, WHO provides guidance about general evaluations of provided medical care in order to avoid harsh deviations. However, standards do not include information about the quality of evaluations and monitoring; such guidelines do not exist. The only established requirement for monitoring is the MDS system which provides general information about EMT performance and field visits to renew information about SOPs or protocols, as well as confirm or support EMT operations.

Infrastructure

Well-managed infrastructure is a crucial part of EMT operations. According to WHO standards, logistics cover 13 major areas which are essential for the effective functioning of a field hospital. The qualitative study participants have mentioned that the procurement of logistics need to be carried out carefully. According to study findings, all of the 13 areas need to be considered in EMT logistical SOPs; however, the content of SOP will be determined by the decisions and approaches the country will have towards each component. In terms of medical equipment, study findings showed that EMSC has medical equipment which are essential for EMTs to carry out lifesaving procedures. In terms of consumables and pharmacies, EMSC plans to use warehouse turnover in order to provide needed medication to emergency teams; the management of warehouses and logistics will be under EMSC as it will elaborate SOP for warehouse management and ensure their readiness for exploitation.

The study findings illustrate that the core part of EMT are the SOPs. According to KIIs, EMSC will be responsible for the elaboration and adoption of SOPs in close consultations with ASB and experts hired within this project. It is noteworthy that international experience shows that the engagement of an expert board and multidisciplinary approach might be beneficial for elaborating SOPs. In order to create a solid system of SOPs, it is important to organize them structurally. SOPs need to be classified, numbered and organized. In terms of content, study participants mentioned SOPs need to be short, precise, not very fixed and should provide guidance to every procedural question. The respondents mentioned that SOPs are living documents and they need to be reviewed at least once per year. Corresponding studies provide the recommended list of SOPs for the EMT type 1 fixed.

Study findings

The corresponding chapters introduced the study findings around the needs of the establishment of functioning EMTs in Georgia. The qualitative and desk study findings are organized around sub-chapter themes covering different aspects of the EMT initiative; the findings provide a brief review of the EMT initiative and its importance nationally and internationally. The plan is to establish an EMT type 1 fixed in Georgia, present these findings in the country specific context, as well as the risk associated with SODs and health emergencies. The qualitative and desk study findings in-detail discuss the needs of the EMT workforce, legislative framework, activation procedures, mobilization of teams and coordination of national or deployed international teams, information gathering, monitoring and reporting, infrastructure and logistical support, standard operation procedures and policy implications. The introduced findings are comprehensive and allows for an evaluation of the current state of development – including what has been done so far and what needs to be done.

The presented study findings are likely of interest for all the stakeholders engaged in the process and can be used for EMT advocacy.

EMT Initiative

EMTs have a long history of formation and standardization which is strongly related to the previous experiences gained during Sudden Onset Disasters (SODs). Following the responses to 2010 Haiti earthquake, 2004 Indian Ocean Tsunami and 2010 floods in Pakistan, it was observed that the foreign medical teams deployed following SODs were using different names, terms and their operational or technical capabilities were very diverse which might have influenced the care they provided and their coordination pattern. Hence, WHO have started considering the classification and standardization of emergency medical teams, so that they can speak the "same language", abide by internationally recognized standards, clarify the capabilities and capacities each team had and improve overall coordination. The previous experiences of responding SODs led to the establishment of the Emergency Medical Teams Initiative and classification system, which became operational in 2013 and was renewed in 2021. It's worth noting that medical aid and EMT are the only form of humanitarian aid that is classified and standardized due to its impact on the health and well-being of the general population. According to the new classification system the purpose of EMT governance initiative is to:

1. Establish a vision, mission, key objectives and goals;
2. Articulate and coordinate the engagement of stakeholders at different levels in order to ensure meaningful participation and contribution
3. Establish management practices to support the achievement of objectives and evaluate the performance of teams.[1]

In order to achieve common standards between all EMTs globally, WHO introduces an accreditation procedure to enable teams to meet minimum technical requirements and standards. Noteworthy is that accreditation is necessary for the teams that are deploying internationally yet not necessary for the local EMTs. The accreditation pathway ensures that EMTs are able to be deployed internationally and

[1] WHO. CLASSIFICATION AND MINIMUM STANDARDS FOR EMERGENCY MEDICAL TEAMS. 2021 https://extranet.who.int/emt/guidelines-and-publications

provide sufficient care to affected communities. Accreditation contains the following steps: (1) expression of interest, (2) self-assessment; (3) mentor assignment; (4) mentorship process; (5) pre-verification visit; (6) verification visit; and (7) international registration. Following the successful completion of process and procedures, the EMT will receive accreditation which will be reevaluated after 5 years. The entire accreditation process requires EMT capacity strengthening which includes the enforcement of a legislative framework to ensure the smooth operation and coordination of EMTs, the adoption of WHO standards, identification of national focal point(s), elaboration of SOPs and the establishment of clear reporting and accountability procedures. The assessment of capacities stands on the principle of the four Ss: Systems (SOPs, protocols), Staff (capacity, sufficiency and training), Supplies (and equipment), and Structure and space. A comprehensive understanding of those four principles allow for EMT readiness to be activated at any time.[2]

According to WHO standards, EMTs are divided into different typologies; each type of EMT have particular capabilities which are essential to provide the care escribed to them. According to the 2021 classification and minimum standards, the EMTs are divided into the following typologies:

- EMT Type 1: Outpatient Emergency Care: Provides outpatient initial emergency care of injuries and other significant health care needs.
    - EMT Type 1 teams fall into two categories: associated with healthcare facility (fixed) or not associated (mobile).
- EMT Type 2: Inpatient Surgical Emergency Care: providing inpatient acute care, general and obstetric emergency surgery for trauma and other major conditions.
- EMT Type 3: Inpatient Referral Care: Complex inpatient referral and surgical care including intensive care capacity.
- Additional specialized care teams such as: rehabilitation, burn injuries, and renal dialysis, specialist disease management teams (like cholera or Ebola Virus Disease (EVD)).

The qualitative study participants have mentioned that Georgia plans to create EMT type 1 fixed. EMT type 1 fixed has 27 key standards for clinical care, which provides information on what kind of service this type of team should provide. Annex 4 provides comprehensive information about the standards of clinical care for EMT type 1 fixed. Due to the fact that Georgia is focused on type 1 typology, analytical framework of the report is narrowed down to type 1 fixed and needs identified in the document are customized to it.

The importance of EMT initiative

The qualitative study participants have discussed the importance of the EMT initiative and its impact on the countries in question and their populations. All interviewed KIs have mentioned that the initiative is very important as it provides an efficient tool to respond to national or international health emergencies. The findings of qualitative study about the importance of EMT was divided into two parts; one part of the findings refer to international importance; another part of findings refer to national and country-specific benefits.

[2] WHO. CLASSIFICATION AND MINIMUM STANDARDS FOR EMERGENCY MEDICAL TEAMS. 2021 https://extranet.who.int/emt/guidelines-and-publications

The group of KIs have mentioned that the EMT initiative represents a **very humanitarian concept** towards the international community. It provides a network of systems which are based on the principle of solidarity and ensures that states receive medical support and help when they have disasters and health emergencies.

The qualitative study participants reported that the **EMT initiative provides positive learning opportunities for the organizations, countries and individuals engaged in this process**. From the perspective of organizations and countries, the establishment of this system further professionalizes the management, structure and coordination mechanism particularly in terms of health emergencies.

"Regarding the international engagement, it will be very humanitarian act and beneficial for the country-to-country cooperation."

Local stakeholder, KII

"When you go through the [WHO] standards and whole process, you think about how you can manage your pool, staff, logistics, warehouse… how do we respond, how the process is activated, where the team will be positioned in the national system… This leads to the professionalization of management and structure that is good for the organization and national response too… have heard from the organizations engaged in deployment that they have learned a lot as an organization and they put this into the development of national responses".

International respondent, KII

Georgia – country in context

The qualitative and desk study findings suggest that there is strong need to establish EMTs in Georgia due to its geographic and political location as well as its previous experiences of emergency health responses. The desk study findings illustrated that due to geographic and political location, Georgia is prone to various emergency situations, including natural disasters, like earthquakes, landslides or even military hostilities. Geological and tectonic characteristics make Georgia prone to seismologic activities. Table 1 introduces statistical information about natural disasters and their destructive impact on the lives of humans and economic health (see table 1).

Table 1. Major natural disasters and their impact in 1995-2017[3]

#	Type of natural disaster	Number of events	Human losses	Approximate economic damage (mln. Gel)
1	Landslides	10001	47	951.80
2	Mudflows	2929	94	738.60
3	Floods and Flash floods	279	64	669.8

[3] Natural Hazards in Georgia [Internet]. Available from: http://drm.cenn.org/paper_atlas/RA-part-3.pdf

4	Snow Avalanches	261	35	78.6
5	Wildfires	4964	_	_

According to the desk study findings, there are several major seismic zones in Georgia, including the main ridge of the Greater Caucasus and Javakheti volcanic plateau as well as the Adjara-Trialeti ridge fault system which also has a history of destructive earthquakes.[5] During the past 30 years, the country experienced several major natural disasters followed by health emergencies:

- On 29 April 1991, the largest-scale earthquake occurred in Racha (Ms=7.2, lo=9), which resulted in more than 200 deaths and approximately 60,000 individuals were left homeless. The earthquake caused major damage of large areas covering thousands of square kilometers.[6]
- Since 1995, 141 people died due to dangerous geological conditions in Georgia. Between 2011-2017, the Department of Geology under the national environmental agency gave recommendations about the resettlement of 1 290 householders (totally 6 984 householders were assessed) to geologically stable and sustainable areas.
- On June 2015, there was flood in the capital of Georgia which resulted in human casualties and damage to infrastructure. Namely, the flood destroyed houses, roadways, the zoo and other facilities, creating one of the greatest health emergency crises in Georgia's history.

Besides natural disasters, the desk study findings suggest that the country is located in a politically turbulent region and has a tough political background caused by two major conflicts in the past 30 years creating a large number of Internally Displaced Persons (IDPs) as well as great human and material loss. The armed conflict between Georgia and Abkhazia was the most destructive in recent Georgian history, causing the death of between 10,000-15,000 individuals and wounding 8000 persons.[7] The newest armed conflict in Georgian history occurred in August 2008 between Georgia and Russia, which resulted in injury of 2 232 and death of 408 individuals including 224 civilians.[8] Due to the fact that the geopolitical situation close to Georgia's borders are not stable, the possibility of health emergencies needs to be carefully evaluated in this regard. Besides, the Georgian respondents mentioned that risks of health emergencies exist not only in country itself, but the whole region is susceptible to different types of hazards and health emergencies. Therefore, the need of EMT exists not only nationally but regionally; the Georgian KIs reported that they will contribute to the regional peace, stability and provide the necessary medical assistance to the regional countries in case they will have health emergencies.

It worth noting that the COVID-19 pandemic in both Georgia and worldwide increased the demand for emergency health assistance. In the national context, the Georgian KIs have mentioned that the existence of EMT would have been and would be very helpful in responding to COVID-19 particularly when the number of infected was very high, reached its peak and field hospitals were set up in Batumi

[4] Period of 2003-2017

[5] Natural Hazards in Georgia [Internet]. Available from: http://drm.cenn.org/paper_atlas/RA-part-3.pdf

[6] Natural Hazards in Georgia [Internet]. Available from: http://drm.cenn.org/paper_atlas/RA-part-3.pdf

[7] International Committee of the Red Cross. Country report Georgia/Abkhazia: ICRC worldwide consultation on the rules of war. 1999.

[8] IDFI. Information Regarding the 2008 August War Between Russia and Georgia [Internet]. Available from: https://idfi.ge/ge/information-about-war-between-russia-georgia-in-august-2008

and Marneuli. Based on previous experiences, the field hospitals were arranged via the coordination of MIDPOTLHSAG and the Ministry of Internal Affairs (MIA). According to the qualitative study findings, logistical support was provided by the MIA through setting up of tents, field hospitals and the provision of security, while the delivery of medical services was carried out by MIDPOTLHSAG. Findings suggest that if EMT had been established, logistical support and medical services would be provided by this structure. It is anticipated that this kind of arrangement will make the process smoother.

"From our perspective, there was no possibility to provide the medical service in field conditions. In case of necessity, the patient was transported to the nearest medical facility… crisis frequently happens to the areas with limited access to medical facilities and the provision of inpatient care might be prolonged due to the absence of infrastructure… If EMT is established, it will be the most important mechanism to respond the nation-wide crisis and we will have opportunity to have field hospital close to the crisis area which reduces the time for the delivery of first medical aid during the catastrophes."

Local stakeholder, KII

The Georgian KIs mentioned that the country does not have a history of operating emergency medical teams' which means that medical assistance was previously far less effective or impactful. A part of the respondents mentioned that most frequently SODs occur in areas where no close-by medical infrastructure or facility exists to provide timely outpatient care. Hence, the delivery of first aid took more time and was consequently less effective. Another part of the respondents mentioned that during SODs or state of emergency, some arrangements were made in the country to tackle such situations but frequently they required inter-agency coordination which was time-consuming. When it comes to emergency medical assistance, state of emergency and SODs, the time and immediate response is very important; it is anticipated that establishment and effective functioning of EMT will solve the previous shortcomings and provide a more effective mechanism to respond to all national health crises.

EMT workforce

The key component of EMT is the staff: they are responsible for providing medical care and logistical support. According to WHO standards, the EMT type 1 fixed is expected to provide care to 100 outpatients per day. In terms of composition, it is recommended that EMT type 1 fixed to have at least three doctors trained in emergency primary care with a minimum doctor-nurse ratio of 1:3 and minimum nurse-patient ratio should be 1:8 in every shift. In addition, the EMT team needs to have at least two logisticians which will be responsible for setting up field hospitals and ensure the delivery of equipment to the staff. It is recommended team to have WASH specialists who take care of hygiene and sanitation. The international practice shows that logisticians usually combine the functions of WASH. It is recommended to have a guard as a staff member or hire during the ongoing missions case-by-case in order to ensure the safety and security of team.[9]

[9]WHO. CLASSIFICATION AND MINIMUM STANDARDS FOR EMERGENCY MEDICAL TEAMS. 2021, available from https://extranet.who.int/emt/guidelines-and-publications

As it was already mentioned, the EMT is created under EMSC which coordinates under the MIDPOTLHSAG. The findings of KIIs suggest that Georgia will have a team of 21-23 individuals including medical and technical specialists. WHO standards show that the engagement and recruitment of staff for the initiative is very important. The desk study findings illustrate that Georgia has challenges in terms of medical human resources and the country has disproportionate doctor-nurse ratio (0.8 nurse per 1 doctor).[10] [11] However, Georgian KIs have mentioned that the selection and mobilization of doctors and nurses will not pose an obstacle for the EMT establishment and EMT volunteers will be selected from EMSC staff. According to the qualitative study findings, EMSC has about 4000 medical staff (doctors, paramedics, nurses and drivers) in total working in prehospital care; out of them approximately 1 500 individuals are nurses and some specialists have already expressed interest in the work of EMT nationally or internationally. In terms of staff recruitment and mobilization, the respondents mentioned that the country already has experience mobilizing emergency medical teams during the COVID-19 pandemic to substitute the infected medical staff and the pattern of mobilization was pretty similar to the EMT system. Besides the medical staff, the logisticians are also one of the most important members of team. According to the qualitative findings, the focal point of Georgia does not see any obstacle in terms of recruitment of medical staff from 4 000 professionals; however, the selection of the right logisticians is anticipated to be more challenging as this field requires the possession of a wide range of skills. They should be able to setup and dismantle tents, deploy a huge volume of equipment, provide electricity in the tents in field conditions, be a qualified electrician and have skills to work with generators, provide purified water, and more. Due to the complexity of tasks, it is important to select the right individuals as logisticians, provide them with good preparatory trainings and put an effort into maintaining them in the roster. Estonia's experience shows that they use the staff of the rescue board acting under the Estonian Ministry of Internal Affairs for logistical support, safety and security as they have more institutional experience of this kind. Such a pattern of human resource management can also be considered for Georgia. During international deployments, the Georgian EMT aim to relocate via land transportation; hence, the team will need a driver with a corresponding license. With regard to driver's licenses, it is important to preliminarily discuss that subject with the requesting country and ensure that a driver's license for medical transport is accepted just as a regular license is. International experiences show that sometimes countries hire drivers and transportation during the mission and they do not have them included in their pool of workers or volunteers. Findings suggest that the same might go for Georgia.

According to the qualitative and desk study findings, WHO does not provide any guidelines about the qualification of EMT members and gives general recommendation of services each configuration of EMT should deliver; however, international practice shows that each country has its own criteria which is compulsory for EMT membership. According to German, Belgian and Estonian experiences, the EMT team is expected to have the medical education (doctors, nurses, paramedics) and relevant working experience. For instance, German EMTs require volunteers to have relevant medical education and 2 years of working experience, while Belgian EMTs require the staff to have medical

[10] Botchorishvili E, Peranidze N. Healthcare System in Georgia [Internet]. 2021. Available from: https://galtandtaggart.com/upload/reports/13497.pdf

[11] National Center for Disease Control and Public Health. Statistical Directory [Internet]. 2019. Available from: https://www.ncdc.ge/#/pages/file/fad4aa1f-2eab-4792-bf4d-5792f58c1782

education and relevant working experience, though the Belgian system does not benchmark how many years of experience can be valid for the membership. The Belgian model ensures that EMTs are formed mostly by doctors with adequate experience (2/3 of team); however, they also give opportunities to less experienced volunteers. The Estonian model ensures that EMT members are working health professionals qualified and recognized in the field; the country does not have much extensive membership criteria. Interestingly, Estonian ministry of health do not select volunteers with small children for the deployment, while one of the German EMT surveyed during the field phase mentioned they select respondents aged 23-60 as some countries expose difficulties with young professionals. According to the interviews with local KIs, Georgia plans to require the relevant medical education and also experience in health emergency responses and delivery of medical aid in field conditions. Due to this fact, the country has such specialists who are also interested in cooperation, the selection will not pose a challenge. In terms of criteria, it is expected that the team leader and the deputy team leader will know English as they will be the ones engaged in reporting with EMT CC also will assist the team in communication with the host country staff members. A share of international respondents emphasized that the language barrier is one of the main obstacles for international teams during the deployments, as many medical specialists do not know many foreign languages and requesting countries are not able to provide the interpreters. During the international deployments, it is recommended such kind of considerations to be made and discuss the options how the language barrier will be tackled on mission.

"If we look at the numbers, we have about 4000 professionals including doctors, nurses, paramedics… one important aspect is to express readiness to be volunteer, the second important aspect is to carry out their professional work in the field conditions… to some extent, field experience is very important, if candidate will have such and experience in emergency conditions… as we have quite a lot specialists ready to engage voluntarily, it will not be a problem to select some qualified candidates among the staff having readiness and such kind of experience…. We had discussions to have 21-23 individuals per team, but the creation of rotation team is also important to substitute deployed team after two or three weeks."

Local stakeholder, KII

Based on international practices, it is recommended to have a roster of volunteers with different profiles. According to WHO, it is suggested to apply rule of 1:5 ratio for number of team members per function in the roster, except for specialist care functions.12 The international experiences illustrate that countries can develop two approaches of volunteer pool management. First, countries can have a basic team and volunteer pool to substitute the basic team members in case of they are not available; second, big share of countries fully counts on the volunteer roster and gather the staff during the request among them. Findings suggest that it depends on the country which practice will be perceived as much suitable for national context; however, the creation of volunteer roster is necessary in both cases. Findings suggest Georgia is more likely to have basic and rotation teams and prepare about 50 individuals (both medical and non-medical staff). In that case, the team management should be done

[12] WHO. CLASSIFICATION AND MINIMUM STANDARDS FOR EMERGENCY MEDICAL TEAMS. 2021, available from https://extranet.who.int/emt/guidelines-and-publications

by the core team members like team leader, deputy team leaders, senior doctor and more, and some encouragement mechanisms need to be considered for the them.

The qualitative study findings suggest that creation of big pool of volunteers have several advantages. First, the bigger pool of volunteers ensure that team will gather upon the request. Second, it was marked that international deployments are getting longer and usually they last more than 2 weeks; when the deployment lasts longer than 2 weeks a rotation might be required. A larger pool of volunteers allows rotation of staff during the deployment. International experience suggests that the experience of medical staff with mixed profiles is very beneficial when treating patients with different health conditions. Considering the fact that the focus of EMT type 1 fixed is primary healthcare and first aid following the SODs, it is recommended to have general practitioners who know internal medicine, pediatricians, gynecologists, dermatologists and physicians with other profiles who will be able to treat wounds, trauma, burns, maternal and child healthcare needs, and more. Noteworthy, the international respondents indicated that the COVID-19 pandemic has increased the demands on infectious disease experts which is also worth considering. In addition, the experiences of other countries indicate that the composition of EMT should correspond to the health needs of affected countries and the type of assistance the requesting country specifies. It is important to check such information before the deployment and ensure that volunteers selected for a particular mission are specialists of the service they will provide in the field conditions and will be accepted by the affected country. In this regard, the well-structured and organized database of EMT volunteers is strongly recommended in order to facilitate the formation of a team during the SODs and have clear understandings what kind of skills and profiles each member has.

"The first approach is to setup the team, which is dedicated to the EMT and nothing else. Some post-soviet countries have this approach but it has negative implications. If the EMT is not deployed for some time, EMT staff lose their medical qualification… Second approach is that you can have EMT roster which can be mobilized during the emergency. If you take this path, you better develop advocacy scenario and procedures with managers of hospital to explain them why this initiative is so important".

International respondent, KII

"It depends on the country you are going to, you should adapt. You should have a very wide range of professionals, then you choose the functions based on the country where you go… if you go to Syria or Iraq, you will need some trauma surgeons, if you go to Namibia, then mother and child specialists will be very important. On the other hand, you strive to have a good mix of people speaking different languages".

International respondent, KII

According to the qualitative and desk study findings, EMT membership is volunteer based and it is not compensated. The qualitative study participants mentioned that recruitment and mobilization of EMT staff require some funding and a strong volunteering culture. Most EMTs are established in well-developed central European countries which have enough financial resources for their operation and a long history of volunteering which the public widely supports. It is important to note that Georgia does not have a strong culture of volunteering and the representative of the focal point of Georgia acknowledge that some financial compensation should exist for EMT members to increase their

motivation. According to the findings, the general agreement about the inclusion of financial compensation and social benefits for EMT staff does exist among decision-makers, though more details about the amount of compensation and overall budget is not yet clear.

"In our reality, we anticipate and plan that the team gathered for the mission will necessitate some kind of financial support and encouragement. All leaders and decision-makers agree that some kind of encouragement should exist which will increase the motivation of volunteers. Though I cannot say concrete numbers at this moment, as we have only verbal agreement from the decision-makers."

Local stakeholder, KII

Evaluation of international practices show that most countries focus on volunteering and put a strong emphasis on inclusion in order to increase the motivation of staff. Interestingly, the consideration of financial compensation in case of some countries are made with employers in order to ease the release of staff from the work; however, the directly compensating EMT volunteers is not really applied internationally. The qualitative study findings illustrated that countries have some established practices that encourage their volunteers to engage in an EMT initiative and participate in the missions. According to the findings:

- It is important that the EMT system is transparent and the volunteers be communicated with as much possible about developments, training opportunities and other news. Volunteers need to know how EMT work is going and what the outcomes are of activities overall;
- The experiences of other countries show that deployment and wider international engagement is the most important stimulus for volunteers. The more deployments EMT make, the more volunteers are involved in trainings and overall activities;
- Another important aspect is the inclusion and development of training modules or curriculums that are interesting for volunteers and correspond with their daily activities or provides the prospect of professional development. International experience shows that the development of a bottom-up system and approach provides better inclusion and commitment, while top-down approaches are more conducive to military teams. The provision of inclusion is particularly important when there is no deployment. The experiences of other countries show that some EMTs allow their volunteers to deliver the trainings that pertain to their particular interests. Another form of inclusion is organizing informal gatherings and meetings which allows the volunteers to develop real and personal ties to the team and feel included.

According to the qualitative findings, some countries sign memorandums with EMT volunteers and/or employers where the terms of reference are indicated. The respondents noticed that memorandums are usually very short, precise and not very detailed; it states the commitment of volunteers and/or employers to the EMT initiative, expresses their readiness to engage in activities and contains a record of compensation. Interestingly, German EMTs sign the memorandum and Estonian EMTs sign contracts with the employers of volunteers in order to communicate about the initiative and boost their motivation to release staff during the request. However, these kind of arrangements do not guarantee the release of employees during the call as the schedule of medical doctors are not the most flexible and easy to adapt.

"They have contracts for the employers, but it provides no guarantees".

International respondent, KII

"We have memorandums, as they are all volunteers, it is one-page in length, not very detailed, but it states that the work during the deployment will not be paid and the person is part of our volunteer roster. The one-page length memorandums are for the employer too, that provides the commitment from the employer to support the employee's engagement and volunteering in EMTs… it does not guarantee that during the respective deployment, the doctor will be released from the shifts and such kind of risks always exist.

International respondent, KII

According to WHO standards, the EMT teams need to be provided with adequate trainings, retraining and continuous education. In this regard, the standards are pretty flexible and provide the general assumptions but does not specify what kind of trainings each EMT type should deliver. According to the findings, the trainings for EMT staff will be delivered under the trainings center of EMSC, which generally provides the trainings about the international emergency assistance. Hence, this center and EMSC will be responsible for the retraining of existing staff and the preparation of new team members.

The study findings indicate that focal point of Georgia has a general vision where the trainings should be delivered and what kind of direction they should have. The trainings must include field activities, exercises, psychological preparation of the team for missions, logistical trainings and more. International practices show that countries engaged in EMT initiatives are delivering training modules that include various topics. The qualitative study findings show that EMT preparation trainings should include the following training modules or programs:

- **Induction training** providing information about EMT initiative, their activities and how the international system of humanitarian assistance works
- **Medical trainings**, which explain what kind of health surveys the EMT type 1 fixed is expected to provide and the limitations; usually, teams provide two medical trainings to volunteers;
- **Logistical and technical trainings about the utilization of EMT equipment, infrastructure management, electricity, waste management**, water supply and/or water treatment, which will largely depend on what kind of water supply plan EMT will have;
- **Safety and security;**
- **Culture, communication and media trainings**, which are important for EMTs that deploy internationally and need to provide medical services to communities which are different from theirs;
- **Field exercises and scenarios.**

The qualitative study findings suggest that part of countries deliver medical trainings; namely, Belgian and German EMTs include two medical trainings in their curricula and some of them make mandatory to go through the medical trainings once in every two years, while Estonian EMT training curricula does not contain medical trainings due to the legislative obstacles. Namely, Estonian Health Board or Rescue Board does not have medical workers or medicals working in the hospital who would be able to deliver such trainings. The Health Board has a contract with biggest hospital in Estonia and it ensures their preparation. Mostly, it is perceived as the volunteers' medical preparation is part of their medical practice and it is obligation of the hospitals to provide information about the new approaches of treatment to the team members. . Despite the Estonian experience, it is recommended to include

medical trainings in the training curricula in order the team to know which treatment methods they can use during the deployment.

Interestingly, the delivery of trainings to EMT volunteers can be carried out via cooperation with different agencies which have expertise in the field and are capable of conducting thematic trainings. For instance, training on safety and security can be delivered by the MIA or Ministry of Defense; medical trainings can be delivered by different experts from MIDPOTLHSAG, and more. The study findings suggest that biggest share of countries put strong emphasis on induction trainings due to various factors. First of all, the trainings provide information about the initiative, its importance, how the international humanitarian system works, what kind of living conditions volunteers will live in during national or international deployments, as well as the benefits and challenges associated with it. Second, induction trainings also contain some exercises and scenarios where people are put under pressure or in field conditions in order for them to know how they will react in such conditions and what will they do. Usually, induction trainings decide whether the volunteer suits the team or not and EMTs decide which volunteers will be deployed following this stage. During the field phase, the minor share of respondents reported that they make decision about the volunteers' inclusion in the roster not following the induction trainings but after the completion of all training modules.

Noteworthy, the qualitative study participants have mentioned that a separate training program for team leaders and deputy team leaders is strongly recommended as they need to know more about data gathering, reporting, information analysis and more, as the most frequently they are ones responsible for these duties. One of the German EMTs have shared very interesting approach and experience regarding the data gathering and division of functions between team members. Namely, the respective EMT had one or two management support officers who does reporting with EMT CC, ministry of health and carry out administrative work including the hiring the local staff (drivers, nurses) for translation or relocation, making medical records and more, while team leader is engaged in the communication outside the team and deputy team leader(s) leads team in the field. Such pattern of function allocations seems interesting and it is up to focal point of Georgia what kind of approach it will adopt; regardless of final decision, the team leader, deputy team leader and/or management officers need the preparation to fulfil their functions on the ground.

According to the qualitative study findings, it is recommended to have at least one person who will be responsible on trainings for the management of EMT human resources. In addition, it is expected that EMTs will have special trainers, which will prepare or retrain new or existing volunteers. The qualitative study participants suggest that training curriculums need constant review, as the guidelines and protocols are periodically renewed and the team itself has new experiences and learns lessons on every mission – this needs to be reflected in the training curriculums. Regarding training, it is important to financially enforce the EMT training center in order to have the capacity to develop the curricula, deliver trainings, retraining, and procure the necessary inventory and provide trainings to the staff working on the trainings. The financial enforcement of the training center might be one of the advocacy topics at the decision-making level.

Similar to the content, WHO does not provide any guidelines or directives about the frequency of trainings. However, international experience shows that countries that make it compulsory to complete all training modules and curriculums, do it at the initial stage of selection; however, the volunteers are

expected to attend several trainings in the following years in order to refresh their knowledge and check their availability or commitment to the initiative.

In terms of trainings, KIs have mentioned that international exchange visits are a very important tool to increase the capacity of EMTs. In addition, qualitative study respondents mentioned that German RKI provides international twining partnerships for EMTs where foreign EMTs are aligned with German EMTs in order to increase their capacities, as well as share their knowledge and experiences. According to the Georgian respondents, the opportunities of WHO and other international organizations in terms of capacity building activities are very important for the functioning of EMT; however, it was also mentioned that engagement in such activities and traveling with all of the equipment requires financial support and an additional budget which might be a burden.

Legislative framework

Qualitative study findings suggest that the establishment and activation of EMTs requires some legislative amendments and adaptation. WHO standards do not discuss the legislative adaptations needed for EMTs, as every country has specific legislative environment and it is viewed as their inner affair. However, it is clear that establishment of a new governmental structure requires institutional recognition. According to qualitative study participants, the normative recognition of EMTs is strongly interconnected to its configuration and whether its functioning requires interagency coordination.

The qualitative study participants have mentioned that there are several ways to give normative recognition to the new institution. In the event that the newly established institution is separate from LEPL, it requires higher legislative recognition and corresponding legislative/normative changes need to be made; if the newly established structure is going to act under the established LEPL, it will not require a separate decree of government and changes in the subordinate normative acts need to be considered. EMTs will be subordinated to the MIDPOTLHSAG and LEPL EMSC; hence, the following amendments can be issued to recognize its establishment and grant it as much legitimacy as possible:

- General amendments should be made in the **statute of MIDPOTLHSAG**. The amendments should incorporate information about EMT as a structure acting under EMSC and provide general information about its main principles and functions;
- A more detailed breakdown of functions should be added in the **statute of LEPL EMSC,** which is approved by the order of government and has normative power. Amendments to the decree of government establishing EMSC and its functions will give EMT higher legitimacy;
- There is a need **to review governmental decrees in order to make the amendments and provide EMT with more legitimacy**. Due to the fact that discussions about the prospective legislative amendments have not been started in MIDPOTLHSAG, the respondents had limited information about it; however, the qualitative study participants have mentioned that the minimal change that can be issued is the inclusion of EMTs in emergency health programs. KIIs recommended **the amendments in the referral program** of MIDPOTLHSAG work during the emergencies. Besides, it was reported that the Georgian government annually approves the programs of ministries; the qualitative study participants mentioned that EMT funding and functions of structure should be written into emergency health programs adopted by the government of Georgia.

"[Normative recognition of EMT] can be regulated by the normative order of the minister… its recognition needs to be made in a subordinate normative base, higher legislative recognition will not be needed as it is not a separate LEPL… the statute of LEPL EMSC is adopted by the governmental order and amendments in this document will grant it higher legitimacy… in order to grant [EMT] a higher legitimacy, it needs to be mentioned in the governmental decrees and orders. Next with approval of the annual budget, the programs of ministries are also approved. EMT needs to be added in the governmental decree approving the health emergency programs… we also have referral program which works during the emergencies. This program needs also to be reviewed next with governmental decrees."

Local stakeholder, KII

Within both the qualitative and desk study, an analysis of Georgian legislation with regard to emergency response mechanisms was carried out. The study findings suggest that Georgia has a complex legislative system of emergency responses including a health emergency crisis. The qualitative study findings illustrate that the paramount framework for responding to epidemics and emergencies is the **Constitution of Georgia**, which determines how the state and its bodies should enact their duties and how coordinated they should be to provide an efficient response to different situations. In the recent past, the constitution was enacted during the COVID-19. The qualitative study findings suggest that one of the legislative documents that provides guidance over the management of emergency responses is **Decree of the government of Georgia No508 - the National Civil Security Plan –** which determines the principles of emergency response and provides a general guidance to the roles of administrative structures; Below decree 508, every administrative body has their own response plans. Other important legislative frameworks responding to the emergencies are **Law on Public Safety, Law of Georgia on State of Emergency, Law of Georgia on Martial Law, Law of Georgia on Health Care,** which are used during the cases of different emergency responses. Besides the national legislative framework, qualitative study participants have mentioned that Georgia has **municipal response plans and risks evaluation plans** which are instrumental documents in responding to and managing emergency situations.

It is worth noting that National Civil Security Plan provides much broader categories of functions to emergency assistance. It identifies 17 functions of emergency assistance; among them, the sixth function of emergency assistance is medical care, which is the responsibility of MIDPOTLHSAG and other supporting agencies. The desk study findings suggest **that the tasks under medical care are quite broad during the state of emergency and it can easily be adapted to EMTs without additional amendments; however, list of supporting agencies under sixth function could be reviewed as EMT coordination and deployment might require engagement from other agencies to ensure timely deployment**. With regard to the Law on Public Safety, similar to decree 508, it also suggests a multidisciplinary approach to the disasters' mitigation process. It provides directions for management, coordination, financing, and more. Noteworthy is that **the law is more concentrated on fire-related emergencies; however, it suggests that the classification of emergency situations covers a broader range of emergencies rather than fire.** According to the desk study findings, this law has potential to be developed and integrate details regarding health emergencies and EMT, their importance, rules for activation, coordination, and more.

Qualitative and desk study findings suggest that there are not legislative obstacles for the establishment and operation of EMTs. The qualitative study participants assumed that existing legislation provides good groundwork and should be extended. On top of this, it is expected that the establishment of EMTs will improve the legislative framework in terms of emergency responses with a particular focus on health emergencies. The KIs mentioned that legislation needs periodic renewal and review in order to check to what extent they are able to respond to modern challenges. The respondents mentioned that the COVID-19 pandemic has shown some legislative shortcomings in terms of coordination and management mechanisms, as well as illustrated the flexibility of the existing system. According to the qualitative study respondents, **there needs to be issued improvements of the existing response mechanism in terms of management, communication, interconnection, feedback, information sharing and providing the public with information.**

The qualitative study participants have mentioned that emergencies are coordinated by the headquarters which is created during the state of emergency and is headed by the head of the Government of Georgia. Besides, internal headquarters are created at the levels of ministries engaged in the central headquarter. Usually, internal headquarters are created by an Act of Minister which contains information about the engaged structures, contact persons and more. The headquarters under the ministries are accountable to the Central Headquarter; in addition, the Central Headquarter is represented by ministers, while the deputy ministers chair the headquarters under the ministry. According to KIIs, that unified system of response was created during the COVID-19 pandemic. The central headquarter was created with chairmanship of prime minister and Decree 164 was issued **On the Approval of Measures to Prevent the Possible Spread of the Novel Coronavirus in Georgia and the Emergency Response Plan for the Cases of Novel Coronavirus Disease,** which urged the corresponding ministries to adopt operative plans and fulfill the tasks determined by the decree. According to Decree 164, the main governmental structure responsible for the emergency response was the MIDPOTLHSAG and LEPL EMSC. During the emergency, the internal headquarter was also created under MIDPOTLHSAG, where structures and LEPLs of the ministry were united including EMSCE and NCDC. According to the qualitative study participants, the EMSC had information about the emergency cases and referrals, while the NCDC evaluated statistics, managed the general information, communicated to the public and issued recommendations. According to the findings, EMT engagement in national emergency responses is possible under the internal headquarters of the ministry.

To sum up the legislative analysis: EMT will not require the adoption of new legislative documents however amendments in the statute of the ministry, EMSC and the decrees of government should be issued. In addition, the agencies engaged in the delivery of the sixth function – medical care – under the National Civil Security Plan needs to be reviewed, though the tasks are comprehensive and do not need any amendments. Following the COVID-19 pandemic the general review of emergency response systems needs to be reviewed in order to customize them to the relevant health emergencies. In terms of shortcomings, both qualitative and desk study findings could not find any legislative articles that might hinder the establishment and functioning of EMTs in Georgia.

EMT activation

As Georgia aims to create EMTs for both national and international responses, it means the activation and deployment of EMTs will require a strong mechanism of coordination and mobilization. The study

findings suggest that the response mechanism can be different for both national and international engagements as they require different types of resources and mobilizations.

In terms of national responses, it was mentioned that the EMT activation plan and indicators should be incorporated into the existing response mechanisms. The benchmark indicator should be determined when the EMT will be activated for national responses. The study participants have mentioned that emergency health crises can be caused by armed conflicts, pandemics and SODs. On its own, natural disasters can also be local, regional and sectorial. Hence, it is important that response plans include which level of emergency situations and indicators require the activation of EMTs. In addition, respondents mentioned that decisions about national activation can be made by the head of EMSC or the minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia.

"The rules for activation and indicators can be written in different response plans. For instance, if response plans indicate that during an earthquake the emergency teams need to be mobilized, it should be amended and the EMT needs to be written… hence, there needs to be issued amendments in the action plans at which level and which indicator requires the activation; the decision maker itself will be EMSC or the ministry of health at maximum".

Local stakeholder, KII

According to the qualitative study findings, the decisions about the international deployments of Georgian EMTs should be made by the responsible authority as it is both a political and strategic decision which requires allocating additional funding and resources. For national responses, the funding of EMTs can be included within the emergency funding which is allocated during states of emergency, while the funding of international deployments will require a separate allocation. According to the qualitative study findings, decisions about the EMT`s international deployment should be made at a higher level and the head of EMSC cannot and should not be responsible for it. According to the qualitative study findings such decision can be made by:

- The Minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia;
- Deputy minister of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia coordinating the work of EMSC and EMTs;
- The Coordination Council operating under the Government of Georgia.

In the event that Georgia has a health emergency and requires the activation of foreign EMTs, the country needs to make a request in three possible ways: (1) publishing the request on the Virtual Authority platform; (2) issue the request via international organizations like WHO, UN, EU, and others.; (3) directly approach the country in question for assistance. KIs have mentioned that the request issued by the country should include information about the field of expertise that is needed and which teams are already deployed on the site in order for them to better evaluate their capabilities, gather corresponding teams and create additional value. Following the request for assistance, the country should go through a self-evaluation process and assess whether the team has enough staff to mobilize and gather for missions; all the equipment is available and the team is logistically ready; the strategic decision about the international deployment should be made by the respective authority;

following the offer of assistance, the country in question needs a final confirmation from the requesting state about the deployment to start transporting medical assistance.

EMT mobilization

EMTs are on a stand-by regime and they can be activated at any time. However, the mobilization, deployment, registration, tasking and setup require some time. Noteworthy is that the mobilization processes of EMTs for national and international responses differ from each other although they share one similarity. In both cases, self-evaluation should be made and the availability of staff and equipment needs to be considered. Interestingly, in terms of national mobilization, the issues of activation and mobilization are strongly interconnected as it requires clear activation procedures written in the EMT SOPs, protocols and volunteers need to be well-informed about them; in addition, the relevant decision-maker should be allocated who will be responsible for national activation in order EMT coordination center to start the mobilization of volunteers, pack all inventory in the boxes, identify the location for field hospital, deploy team and all technical, logistical, medical inventory to the affected region, start setting up the field hospital and operation. At this moment, Georgian focal point is more centered around the defining the activation procedures for the national or international deployments which is perceived as a key for national or international mobilization of Georgian EMT.

As the geographic scope of the international engagement of Georgian EMT's is limited to its neighboring and regional countries, and therefore envisages providing the transportation of equipment and provisions via heavy trucks, it is expected to deploy teams and within 72 hours set-up a field hospital, meanwhile logistical preparation might require an additional 24-48 hours.

Usually following SODs and health emergencies, EMTs are activated either nationally or internationally. Compared to national deployment, the international deployment of EMTs is associated with more bureaucratic obstacles. According to the qualitative study findings, the bureaucratic issues of mobilization are hardly ever as burdensome for governmental EMTs when compared to NGO-managed EMTs; however, they need to be reviewed and considered during both the initial and operational phases of EMT:

- First, EMTs are usually formed ad hoc when the need arises and therefore, they may face **visa issues**; In terms of visas, it is important to communicate with volunteers' every time to have valid passports and documents so that it will not be an obstacle to the mobilization or the departure of team members who have gathered together. Interestingly, if the deployment of EMTs require visas the coordination centers centrally submit applications to the relevant embassies. It is worth noting that government EMTs have some advantages when it comes to bureaucracy, as the Ministry of Foreign affairs, embassies or the personal networks between international partners might help resolve bureaucratic issues with more ease;
- Second, doctors need to have **medical licensing and/or accreditation** in order to carry out their practice in other countries. The qualitative study findings suggest usually medical licenses are also part of the acceptance process and internationally recognized EMTs hardly have these kinds of issues; however, some countries might have different regulations and the surveyed KIs explained their approaches to avoiding such implications. According to the findings, it is important to always check country specific regulations if temporary medical licenses will be needed, share the list of personnel and their qualifications before the deployment and make

preliminary agreements about whether they will have confirmation from the affected country or the temporary licenses will be issued on site. The German, Belgian and Estonian examples show that their EMTs usually do not have issues with medical licenses during international deployments. Only exception was one of the German team having some difficulties around the functions of paramedics in Mozambique. The respondent mentioned that they do not have many nurses and their system is based on the paramedics. Due to this fact, they had difficulties with EMT CC during the mission in Mozambique as they could not understand the functions of paramedics and scope of their activities. In order to avoid further implications, the EMT coordination centers in Belgium and Germany have databases of volunteers that gather preliminary information about their medical profiles and licenses. During peacetime, German and Belgian EMT coordination centers prepare English copies of volunteers' medical licenses in advance, while the Estonian health board acting under the Ministry of Health provides official letters to the team stating that EMT members are working professionals in the field.

- Third, EMT teams have a lot of inventory which needs to go through **customs** so the equipment, documentation, medication, and more are all properly checked. The participants of the qualitative study have mentioned that it is worth being informed about the current custom regulations of the country before the deployment, to have a proper list of inventory so that hazardous items can be properly separated in order to properly clear any review with customs. In addition, it was mentioned that problems with customs can be connected with medication as some countries forbid particular types of medicine. One of the respondents remembered that during their mission in Libya their team was stopped at customs because they carried antidotes. Even though the team leader informed the government that they would carry with them ethanol solution, the customs authority still confiscated them. Regarding customs, the study participants have mentioned that EMT CC can be instrumental and relevant and government decisions can be issued during emergencies to facilitate the process;
- Deployment in some countries might require **vaccination passports** for each team member in order to ensure that foreign insects will not harm any staff member. In addition, study findings suggest that countries have COVID-19 vaccine-related regulations; hence, even though Georgia does not envision deployment in distant countries in the near future, the provision of relevant vaccination passports for the EMT workforce needs to be considered.

The experiences of other countries have illustrated that besides bureaucracy, there are other significant factors that might be obstacles to mobilization and needs to be taken under consideration. Respondents from Belgium, Estonia and Germany have reported that the mobilization of staff for international missions is a pretty unpredictable process and you never know what to expect in each case. The family and workplace are considered the major factors that might influence staff mobilizations. The bottleneck of the process is that you might need to ask several times to gather the desired number of team members. International respondents recommended having a functional activation system in order to receive a clear backup in a particular period of time. For instance, Estonia sends availability requests via SMS and expects feedback in 1-2 hours. Hence, it is important that preparatory trainings include information about both activation and mobilization. It should explain to volunteers that they need to state their availability in particular periods of time and their availability statements should imply that the employer was communicated with, and family or personal life-related considerations were made and they are ready to be deployed for two weeks.

"First you want to know whether you want to engage or not, then you need to know if there is any special expertise needed. Your volunteers need to know how the activation works, you might use SMS or App systems for the activation, where people can say they are available or not. It is important for the volunteers to know that when they state their availability it has to be clarified before the employers or their family. The system should not be built in such a way that I can say I am interested but still need to clarify whether I will be released from work or not. The organization needs the clear backup."

International respondent, KII

"For papers I don't see many problems, because we're the ministry so we have support from the customs and Ministry of Foreign Affairs. The Ministry of Foreign Affairs is going to have the first contact with that country, so a base for us if we arrive. The support is international network, we all have a very big networks, so if something happens in Georgia for example, I call my colleague in Georgia and ask what do you need, something special support".

International respondent, KII

EMT Coordination

According to the study findings, EMT operation requires strong coordination mechanism and each emergency response might require coordination between governmental and international organizations. The findings suggest that in terms of international deployments, the Ministry of Foreign Affairs and Georgian Embassies abroad will be engaged in communication and coordination permanently. In addition, other governmental agencies might also be communicated with to receive information about the risks associated with deployment in particular countries. Besides, the exchange of information with WHO and other international organizations can also be helpful. Regarding the international organizations, KIs reported that they have potential to play crucial role in EMT operations and support teams, for example, with food, water, funding, logistical assistance, transportation, fuel, electricity, and more.

At the national level, EMT coordination and emergency response will be based on inter-agency cooperation. A key structure coordinating the emergency responses are rescue forces, the police and ambulances as they are the core structures that respond to every emergency incident in the country. Hence, it is expected that EMTs will most frequently coordinate with the MIA. In case of large scale disasters or military hostilities, the coordination mechanism will involve the Ministry of Defense too. If a state of emergency is declared due to a large scale epidemic, EMTs will coordinate with the NCDC, which is basically responsible for the management and prevention of epidemics in the country. According to the qualitative study findings, NCDC is not responsible for the management of cases, patients, logistics, transfers, or workload of clinics; all of them are functions of EMSC, while the function of the NCDC is mainly communicating with the population about how to behave and avoid risks, prevent the spread of disease, including via vaccination, and the evaluation of the epidemiological situation and in the country, how to control it, and what recommendations are needed to do so.

Qualitative study findings suggest that countries with EMTs usually have an Emergency Operation Center (EOC) which unites the experts responsible for emergency health operations and functions within their respective Ministry of Health. Unfortunately, Georgia does not have EOC though there is

the will to establish one in the future. During emergencies, the EMT Coordination Cell (EMT CC) is usually created under the EOC. Until the establishment of the EOC, the EMT CC will function under the emergency headquarter established within the MIDPOTLHSAG. Qualitative study participants have reported that the EMT CC is in coordination with the Public Health EOC Network (EOC-NET) during the health emergencies, which provides assistance to national governments to coordinate operational information and resources for the strategic management of public health events and emergencies. The objectives of EOC-NET are:

- The promotion of best practices and standards;
- Supporting the EOC capacity building in countries;
- Strengthening collaboration and coordination between EOCs and partners for effective response.[13]

According to the desk study findings, the vision of EOC-NET is based on the WHO constitution suggesting that WHO should provide *"appropriate technical assistance and, in emergencies, necessary aid upon the request or acceptance of Governments"*. In addition, "*the International Health Regulations (IHR) (2005) Article 13 requests that each State Party shall develop, strengthen and maintain the capacity to respond promptly and effectively to public health risks and public health emergencies of international concern"*. The EOC-NET is created to meet the requirements set by WHO, increase the capacities of national EOCs in order for them to provide efficient response to public health risks and public health emergencies particularly those of international concern.[14] Noteworthy, EOC-NET is eligible to assist countries in coordination of health emergency and emergency responses, while qualitative study participants have reported that other international organizations can also contribute to the emergency responses via financing the deployments and facilitating the communication, information-sharing between the affected country and called EMTs in order the country to receive the needed assistance. The qualitative study findings show that engagement of international organization (except WHO) in coordination process is limited though their overall role is crucial for the successful management of emergency responses.

The qualitative study findings suggest that the EMT CC is a temporary structure which is created in the countries during crisis. EMT CC has the chair and a range of different experts, for example experts of logistics, medicine, communication, personnel contacts and more. The membership of EME CC requires special qualification and expertise. Noteworthy, Georgia has only one such specialist and in case of necessity, EMT CC will be created via invited foreign experts with relevant qualification. The EMT CC coordinates the activities of EMTs, gathers information, reports and plans the following steps. All EMT team leaders have the obligation to attend EMT CC meetings and present the statistical information needed for it. According to both the desk and qualitative study findings, the EMT CC is responsible for quality assurance; it evaluates the quality and convergence of care provided by the team to the needs of the targeted population. EMT CC carries out field visits on a daily basis to (1) provide renewed information about SOPs or protocols to the team, (2) delicately evaluate the quality of care that the teams deliver and if necessary issue recommendations about the place in question. If visible deviations are discovered (for example, the team does not provide quality care, cannot adapt to the

[13] https://www.who.int/groups/eoc-net

[14] https://www.who.int/groups/eoc-net/terms-of-reference

local context, were deployed without approval, etc.) in such cases, the decision-making is beyond the responsibility of the EMT CC and they need to inform the corresponding and responsible agencies. In Georgia's case, it can be MIDPOTLHSAG and the agency that is responsible for the response to the emergency situations to make decisions about extending the deployment of a particular team.

"*The membership of EMT CC needs the special expertise. I am personally EMT CC expert and I have undergone special trainings… experts can be mobilized from any country to form EMT CC… Generally, it is created with international invitations; for example, I had 18 invitations last year to participate in EMT CC of foreign countries. The experts are shared and if someone has possibility, goes and engages in the work of EMT CC."*

Local stakeholder, KII

The coordination of the deployment of EMTs requires considering several steps from both the requesting countries and the deployed team. All of the EMTs crossing the border should be registered (size, capacities, skills, level of self-sufficiency) in order to track and assess the needs of the arrived staff. One important part of EMT coordination is tasking, which can take place either before the deployment or following the deployment and registration. According to the desk study findings, poor tasking may confuse EMT members and affect the quality of their performance. It is therefore recommended to issue tasks prior to deployment as this identifies the location where EMTs should be placed, establishes the leadership, sets communication, reports strategies and prevents the duplication of functions. The qualitative study participants suggest that the location for EMT deployment should be selected very carefully and should meet several criteria. It is desirable that the territory is close to clear water and an electricity source, has access to roads which are not damaged and blocked in order for both ambulances to reach them and logistical support to be provided via land transportation. In addition, it is desired that EMTs be located close to semi or fully functional hospitals or facilities which are not functional during the emergency. Noteworthy is that such buildings must go through a safety evaluation before their use in order to check if there is any potential of damage or if they are already impaired by the disaster. The site evaluation is usually the responsibility of the affected country; however, as the Estonian case illustrates, they can use the rescue board team to evaluate the safety and security of area before the team is deployed and constantly monitor them.

Another coordination factor refers to the logistical support of deployed teams. EMTs are expected to be self-sufficient for two weeks and they should not be a burden to the requesting country which is overwhelmed by SOD. A number of respondents in the qualitative study mentioned that self-sufficiency during the missions is a very individualized concept; sometimes teams can be so overwhelmed in the first week that they might need some kind of support from the requesting country including fuel, water, medical/other waste management, translation assistance, etc. In that case, MIDPOTLHSAG should be able to provide it or I-EMT will be resupplied from its own country. The special plan should be developed beforehand and coordination may be needed to assist EMTs in communication with local providers to make a contractual agreement regarding replenishing supplies when needed.

"It is important to take the guys from the rescue board, who will evaluate the site. However, it is the responsibility of the receiving country. Special knowledge of the rescue team is necessary. They also

have good knowledge of security and safety… We also need water. Israeli colleagues suggest to be close as possible to clean water, as the transportation of water is very difficult in many countries".

International respondent, KII

"International teams in the country have to be self-sufficient for about 14 days, but maybe they are overwhelmed at first week, the supplies can be very low and they have to resupply. The competent authority, the ministry of health (MoH) should help for purchasing the new supplies. If that's not a case it should be set immediately so that the I-EMT can rely on resupplying from the own country."

International respondent, KII

Information gathering, monitoring and reporting

The qualitative and desk study findings illustrated that WHO does not have a monitoring and evaluation system of EMTs which will evaluate the quality of care and work provided by the team. No such guidelines exist. However, WHO standards propose that the Minimum Data Set (MDS) and field visits from EMT CC can be used - these aim to measure EMT performance and monitor the quality of the delivered medical care. A part of the qualitative participants mentioned that EMT operation is multidimensional. MDS include daily reports about deployment, as well as incorporating statistical information about the patients and treatment; however, EMT performance on the ground covers more activities including assessing the teams' capacity, how the logistics are handled, and more. Hence, it is not a tool that provides comprehensive information about the quality of care and performance of the team. It was mentioned above that the reporting language is English; the team leader and/or deputy team leader are usually the ones responsible for the daily reporting and they need have enough knowledge of English to do so; however, the experience of one of the interviewed German EMTs shows that they have management support officers combining this tasks, while EMT team leader is occupied with outer communication of team to EMT CC, MoH and deputy team leader leads team on the ground. It worth noting that the responsible individuals need to protect ethical norms when gathering and sharing information about patients and treatment. For the information gathering and reporting, WHO proposes the utilization of a paper-based system; some countries have attempted to develop an electronic data record system, but they always have a paper-based backup system in case some technical error occurs.

"Here you have pretty strict protocol from WHO on what, when and how to report? There is a standard formula that every team needs to prepare the reports in the evening, of course you can change the logo and it will be your logo on the page, but content is basically given by WHO and there is hardly any influence you can have here. This is called Minimum Data Set (MDS). This is a given and you cannot change it".

International respondent, KII

"The minimum dataset is just set of key information about the specific patients, but EMT activity on the ground is much larger than this in terms of capacity, logistics, etc. The monitoring and evaluation system should not be dramatically different for fixed and mobile teams, they should determine their indicators during the peace and war times and they have to have quite a similar approach for measuring their performance during the deployment. As for performance, you can use different tools,

interaction review and after action review, but formally we do not have any M&E system proposed from WHO".

International respondent, KII

Besides, the MDS as it was already mentioned EMT CC carries out field visits to evaluate the care of the team, provide information about protocols/SOPs and issue recommendations to the teams. Following the completion of deployment, the teams need to hand all gathered information and documentation to EMT CC and develop the existing report summarizing major activities provided by EMTs during intervention.

Infrastructure

Logistics and WASH are significant parts of EMT as they are essential for the functional operation and safety of EMT. According to the desk study findings, logistics govern 13 major areas to ensure that EMT is both sufficient and functional.

- **Power and fuel** – minimum and maximum power and fuel needs should be calculated prior deployment, considering the needs of the equipment applied to ensure a 24-hour response to needs. The capability of power production should meet the needs. The power supply should be applicable for field use and applied by a qualified electrician. Procurement of fuel of adequate quality should be considered in amounts sufficient for EMT needs, but not to harm local population;
- **Communication** – this should cover one primary and one backup communication system. The secondary system should be available in areas where mobile coverage isn't available. All staff members should undergo training on the use of specialized communications equipment. Communication systems should meet the requirements of the reporting mechanism and safety/ security. Call log systems will assist to trace important calls.
- **Transportation and fleet** – Fleet management and a maintenance plan should be established, considering road conditions, security, travel times, seasonal weather changes, hazards. Registration mechanism (paper-based or digital) should be available. The fleet should own electronic/hardcopy manifests for the goods carried by them. All the goods should be marked in compliance with local requirements, including hazardous goods. Safe driving, speed control and other conditions should be considered. To speed up the deployment process, a logistics platform should be selected and agreed in the host country how the storages will be managed at the local level and who will be responsible for it.
- **Food** – I-EMTs should carry at least 14 days and a minimum one-day emergency food supply covering daily energy requirements (minimum 2100 Kcal person/day). The food requirements of patients/caregivers should also be considered when planning. Food can be Meals Ready to Eat (MRE) or a local procurement may be planned to prepare the meals. EMTs type 1 aren't required to have own kitchen, but in case of food preparation, relevant staff should have corresponding training on food management and safety. Cultural characteristics of the host county should be considered.

- **Warehouse management** – Warehouse management system is in place, with relevant processes and procedures.[15] This system may be outsourced, if sufficient access is ensured. Good Warehouse Practices should be followed, and a clear and logical layout should be provided. Inventory list should be the most up-to-date. Work health and safety national regulations should be followed while handling the complicated/heavy stocks.
- **Pharmacy supply chain and medical stock management** – EMTs should have sufficient pharmaceutical, medical consumables and medical equipment to carry out their activities within the mission, implying the amount enough to operate during 14 days and ensure resupply after the stocks run out. Supplies of oxygen, equipment and consumables should be determined beforehand. The most up-to-date inventories should be available at any time electronically or physically. Relevant storage conditions should be followed, including those for cold chain drugs/vaccines and 72 hours should be ensured for adequate transportation and packaging.[i] National regulations should be applied in order to implement a strict monitoring mechanism for controlled drugs. Oxygen supply should be ensured to address oxygen needs through the clinical care and cylinders and/or concentrators should be applied.[ii] Equipment should be operated, stored and maintained according to the manufacturer's recommendations and relevant logs should be kept for all critical equipment.
- **Donation management** – medicines and consumables should be donated according to written procedures. Unneeded donations should be avoided. Local and international regulations should be met upon donation. Expiry dates, packaging and labelling should meet international donation rules.
- **Safety and security** – Security policy should be in place to meet the moral and legal duty of care on the headquarter level. Security Risk Management processes should be available on the field level, considering the cultural and gender context. The Critical Incident Management system will deal with serious security events. An Occupational Safety and Health plan should be developed to address the workplace safety. Staff should be competent and trained in firefighting, and be familiar with the relevant procedures and evacuation plans.
- **Facility structure, environment and ventilation** – Physical space should be organized according to the WHO's minimum standards, including lighting, fencing, ground preparation, and sufficient ventilation. Infection control issues should be considered while planning the facilities.[iii] All areas should be easily cleaned and maintained.
- **Mobilization** – Activation protocols should be developed to ensure a timely mobilization. The establishment of communication channels is vital throughout the whole process. Customs clearance procedures should also be developed and addressed. In some cases, start-up kits for 14 days' supply total may be available for EMTs to assist mobilization process.
- **Site assessment and planning** – EMTs may establish new field facilities or work within or reinforce existing ones. The site assessment plan and rules should be developed by experienced and well-trained EMT representatives, considering future expansion needs. While the equipment is on route to the facility, it should be prepared to be built up in a timely and efficient manner.

[15]Sphere. Humanitarian Charter and Minimum Standards in Humanitarian Response [Internet]. 2018. Available from: https://handbook.spherestandards.org/en/sphere/#ch001

- **Demobilization** – Coordinated demobilization should be based on specific plans and procedures. It should be in line with an exit strategy. This phase is called "reverse logistics" and involves checklists to ensure that nothing is forgotten.

Besides logistical activities, WASH technical standards need to be considered, based on IPC precautions. It covers the following points:

- **Water supply** – Sufficient water supply should be available for medical purposes, personal hygiene, drinking, cooking, cleaning and laundry needs for patients, caregivers and staff. Water quantity should be calculated according to the Technical Notes On Drinking-Water, Sanitation And Hygiene In Emergencies.[iv] WHO and national standards should be also followed for treating water. Water quality and safety analysis test kits should be available within the EMTs. According to the international practices, the countries have either water purification procedures or bring water treatment plant with them.
- **Hygiene** – EMTs should have sufficient facilities for handwashing, showering, menstrual hygiene, and other hygienic needs that consider the local, cultural context. Relevant procedures should be established according to available WHO standards.
- **Environmental cleaning** – Documented protocols, procedures and materials should be developed for EMTs for immediate, routine and terminal cleaning.[v] Relevant kits should be available, including spill kits. Staff should be educated / trained in a relevant manner. A monitoring system should be established.[vi]
- **Healthcare waste management** – EMTs should be acknowledged with relevant WHO processes, local and international standards for waste management and follow them.[vii] Relevant SOPs should be developed and staff should undergo appropriate training.[viii] Vaccination of personal responsible for the WASH is recommended by WHO.[ix]
- **Sanitation** – relevant sanitation facilities and procedures should be available and calculated;
- **Vector and pest control** – Routine measures for the identification of agents, vector control, environmental hygiene, personal protection and surveillance should be available for staff.[x] The WHO classification standard suggests relevant control measures as well.[xi]
- **Dead body management** - dead bodies should be stored with dignity, but EMTs aren't expected to provide forensic pathology, disaster victim identification or mass storage services.xii EMT type 1 fixed are expected to be able to store two dead bodies in a dedicated tent. EMTCC should be notified regarding all daily deaths within MDS or its equivalent. Adequate Personal Protection Equipment (PPE) should be worn by the relevant staff.

The desk study findings provide comprehensive and complete information as to what kind of logistical support EMTs need for the setup of field hospitals. The qualitative study participants mentioned that theoretically all of these components are important and necessary for EMTs in order to classify both the visit and concept; however, it is important to know what kind of field hospital you are going to have, how many members you will have and what kind of equipment and logistical support you will need for it, particularly during the early stage of establishment. It was mentioned that the maintenance of EMT is very expensive and requires lots of resources; this is the major reason why the big share of German EMT Type 1 fixed are moving towards the specialized medical teams or a mobile EMT type 1. Hence, it was recommended to thoroughly think about the equipment field hospitals require. In frames of this study, Annex 5 was elaborated presenting the compiled information about the necessary infrastructural and logistical requirements from WHO Blue Book (2021) in relation to EMT Type 1

fixed and list of inventory/equipment that is necessary for the setting-up of field hospital and operation of team. Noteworthy, local stakeholders mentioned that the final configuration of team is not approved yet; Georgia does not have a final logistical and infrastructural calculations made yet; hence, the list of inventory given in Annex 6 is a draft version, which needs to be processed and looked through by the team leader and logisticians of EMT as they are ones who will use and have final ownership over them.

The qualitative study findings suggest that there is logistical equipment which must include base tents and stretchers as they are important for trainings and field exercises. With regard to base tents, the international experience shows that it is important to make a good investment in quality tents in order to avoid leakages and other breakdown; It is important to preliminary determine the geographic scope of activities to identify what type of materials you will need to operate in particular region. Besides, it is beneficial to have tents for the cold or warm climate conditions. During the interviews, it was mentioned that tents for EMT need to be heavy enough to maintain a solid structure during windy and bad weather. In terms of logistics, it was also recommended to have sleeping bags, a water treatment plant or water purification equipment, generators, lighting, some kitchen equipment might be also considered, the equipment for hygienic procedures including toilets, separate toilets for infected patients, handwashing facilities, showers, washing machines and more. Noteworthy is that a compulsory prerequisite for EMT communication is to have mobile phone that uses satellite connection. As it is a compulsory precondition of EMT communication, this can also be considered a part of the EMT concept and its equipment. The experience of Estonia illustrated that they use different forms of communication. For satellite communication they use radios, satellite phones or mobile phones. The respondent mentioned that radios might not be allowed in many countries, satellite phones will be allowed but they might cost a lot; hence, it is always a good idea to have mobile phones and local SIM cards for the communication.

"Theoretically, there is everything that is needed for the classification of visit and concept. In our case, there are tents for treatment, tents for sleeping, sleeping bags, kitchen equipment, and a water treatment plant, but we do not have medical supplies like drugs in the warehouse, we buy from our partners when it is necessary… You have to design your clinic, decide your medical focus and decide what type of equipment you will need. Tents and stretchers will be crucial to have particularly during the field exercise and trainings for the core EMT team".

International respondent, KII

"You have to define how big your team will be because you have variety from 15 to 60 people. It is up to you how many team members you want to have. Based on the number, you have to create the accommodation, you have to think about what will be your tent or treatment structure. If you want to have a floatable tent or collapsible tent? which material for which climate conditions will you use EMT. For example, in Germany, we mostly prepare for warm conditions but we have materials for the cold conditions too… you have to consider the means of transportation for your equipment. When you are governmental, it is easier. You can use military machines, some contracted companies… you have to consider about the water treatment, waste management… main thing is the transportation, self-sufficiency and the scope of your team, how many patients they need to receive per day".

International respondent, KII

The qualitative study findings suggest it is important to think about how the inventory and boxes will be stored and transported to the final destination. As Georgia prioritizes the land transportation and involvement in regional countries, it can be easier to use only trucks and lorries; however, if country uses air transportation, it is important to think about how the inventory and logistics will be transported from the airports to the direct place of deployment; the lessons-learnt from other countries show that poor management of this component can prolong the deployment and obstacle the process. The international experiences and lessons-learnt showed that the organization of inventory boxes are one of the important task of deployment. It was recommended to use wooden boxes to protect the inventory though alu boxes are also an option. In addition, the international respondent engaged in the logistical support of EMT have mentioned that "it is important to have a good system [of organization]. You need to mark your boxes in a good way so that it will be easier for staff to find materials, for example, for the accommodation, power supply, water supply, medical supply. Then they can quickly setup at least the base camp for the accommodation. If you do not have a good structure of equipment and boxes are not marked very well, it will be pretty difficult to manage process when you have two trucks with 200 boxes. When you offload, you need to have clear structure of equipment, which box you need in priority to buildup certain part of your camps… if you want to set up accommodation first, you need to have this box, if you want to setup mobile or fixed then you need this box. That is one of the lessons that we learnt to keep in mind that you have a clear structure and everybody need to know it." According to the qualitative study findings, it is important to have a general SOP how to manage the logistics on the ground. The respondents reported that SOP need to be flexible, provide general guidance and leave some space for the adaptation to the needs on the ground.

"We have general SOPs and we have some sketches or drawings how to build up camp. You have to be flexible because you will never know if the space will be enough and you will need to build up only part of your camp… or the ground is not flat, it is angled... we provide some options how it can be arranged… but they are always flexible to change the setup and adapt to the needs and possibilities on the ground."

International respondent, KII

Another findings of qualitative study suggest that total weight of EMT logistics and inventory can weight from 3 up to 12 tones. In order to facilitate the management of logistics on the ground, it is recommended to prioritize the inventory that is of light materials and is men-handled. The experience of Estonia shows that they do not purchase inventory weighing more than 300 kg. Sometimes the unloading of inventory from planes or trucks can be challenging; hence, it is important the boxes and inventory to be organized in way that from 4 to 8 people could carry the box and unload lorries for the setting up of field hospital.

In terms of medical equipment, qualitative study participants have mentioned that it is important to have equipment and medication that are important for lifesaving procedures; in addition, EMT should ensure that medical equipment purchased for teams can be used in rural areas too. The respondents mentioned that medical equipment for EMTs is already available and stocked including defibrillators, cardiograph machines, patient monitors, a respiratory apparatus, a portable oxygen plant, and more. That equipment is instrumental to treat life-threatening conditions and prepare the patient for the later stages of treatment which can be provided by EMT type 2 and/or 3. In terms of consumables and pharmaceutical medications, Georgian KIs mentioned they do not store medical supplies as they have

a quick expiration date and such an approach is not cost-effective. Georgia is similar to other countries in that warehouse turnover is used in order to provide medication to emergency teams; they contact the pharmacy chains, send the list of medication and they have an obligation to provide items in a period of three days. That approach is an internationally recognized practice, hence, some needs around this subject were not explored. In the case of shortages, the Georgian respondents reported that such a crisis does not apply to emergency teams as each country has strategic stocks, different supply channels and has access to international mechanisms to provide consumables and medication to the emergency (medical) teams.

According to the study findings, the management of warehouse and logistics is under the responsibility of EMSC, as the EMT will be created and function under it. EMSC is responsible for the elaboration of SOPs for warehouse management and it will be responsible for maintenance, periodic testing and checking their readiness for exploitation. When discussing the ownership and accessibility of equipment, it is recommended to ensure that the training center will have access to equipment (access to tents and stretchers particularly) in order to carry out trainings and field exercises for the team.

"When discussing the ownership of equipment, it is important this to be closely linked to the person coordinating the trainings for the EMT".

International respondent, KII

Standard Operation Procedures (SOPs)

According to the qualitative and desk study findings, the elaboration of Standard Operation Procedures (SOPs) for EMT is very important. The qualitative study participants have mentioned that SOPs are created by the structure within which EMT functions (e.g. EMSC) and the information about SOPs need to be shared with national focal points. In the Georgian context, focal points and EMTs will be gathered within the same structure - EMSC; hence, it will be responsible for the elaboration of and sharing information about SOPs with the team. Georgian KIs expect that the elaboration of SOPs will not require lots of time, as they are very technical documents; it is expected that Georgia will consider the experiences of other countries in order to gain more information about the structure and content of SOPs and will customize them to the local context.

"It is not difficult, it requires time, but there is nothing special. You have to sit and write [SOPs]… EMT requirements are very general. It tells you the number of patients to serve per day, what EMT should be and how it needs to be arranged. The concrete details are not written here. As it envisions emergencies in field conditions, big shares of procedures are based on your capabilities, what you can do and how, not the standards and details… It is not necessary to develop new and elaborate SOPs from the beginning. The international experience is very important… regarding SOPs that need to be introduced, we received support and assistance from the organizations and structures via sharing their SOPs. It is an international standard and SOPs are the introduction of minimal procedures."

Local stakeholder, KII

The qualitative study findings suggest that Belgium has a very interesting approach in terms of EMT elaboration and adoption. Noteworthy, is that the country has a government-based EMT and its approach towards SOP adoption is based on multidisciplinarity; namely, the team leader of EMT is responsible for the elaboration and adoption of SOPs, but before a final approval it goes through an

evaluation in the health advisory board where the experts from different fields are represented including medical doctors, nurses, logisticians, water purification experts, public health experts, and members of the Ministry of Defense. The health advisory board is responsible for the approval of SOPs and the team leader of EMT must officially sign it. The findings suggest that this practice is very beneficial and the establishment of this kind of temporary board at least during the initial phase of establishment can be helpful.

As was already mentioned, during the classification process, WHO allocates mentors who help counties upgrade the SOPs, evaluates whether they meet the international standards, offers the relevant amendments and shares the experiences of other countries too. Hence, following the self-evaluation, the mentor's guidance regarding SOP is key for successful classification. The respondents from other countries have reported that SOPs are a very important part of EMT, as every standard and chapter from the Blue Book that applies to the team needs to be written in the SOPs and they should guide the team members how to respond to emergencies, who is responsible for particular functions, and more. In order to create a solid system of SOPs, it is important to organize them structurally. The SOPs need to be classified and numbered. For instance, Belgium has classified SOPs and they are numbered. The SOPs starting with 1 are about medical procedures and under it are SOP 100 and 101, the SOPs starting with 2 are about logistics, those starting with 3 are about security, etc. So they are organized very structurally. In addition, it was mentioned that SOPs need to be short, precise, not very detailed and fixed. They need to be flexible, helpful and should not be elaborated in a way to undermine or block the system in place. In addition, it was mentioned that SOPs are a living document that need to be updated annually and should reflect progress made in technologies, medicine and other fields related to the operation of EMTs. Some elements might require even more frequent reviews than once per year.

"You need procedures everywhere, because when you miss one step… a very stupid example is procedure about generator. If no one knows how it works and there's no procedure, then you don't have any light... It should describe but in the flexible way, because it's a living document… a procedure today is not a procedure tomorrow. When buying a new generator, there should be a new procedure. For medical procedures, you can operate an appendicitis today with a laparotomy, tomorrow you can do it with laparoscopy so there is an evolution in everything".

International respondent, KII

Based on the qualitative findings, the EMTs need to develop their own SOPs which will answer the questions about how they are going to deliver care in field conditions and prepare staff. They should cover all the directions and need to be comprehensive. Based on the qualitative and desk study findings, the preliminary list of SOPs is elaborated by the analysts working on this project and offered to the respective organizations – ASB and EMSC. Of course, the SOPs need to be reviewed by the team and determine which one will be suitable and needed for them; in addition, the SOPs will go through a final refinement with WHO mentors who are the most competent individuals in this regard and are capable of issuing valuable recommendations. In the framework of this study, Annex 7 provides the suggested list of SOPs for EMT type 1 fixed.

Besides SOPs, the qualitative study findings suggest that the elaboration of the written code of conduct is very important for EMT. The experience of Belgium and Germany shows that it is one of the key

documents for the team as it provides guidance to the members on how to behave in the team. According to the qualitative study findings, it is compulsory for every member of Belgian EMTs to get to know and sign the code of conduct before every deployment.

Policy implications

The KIs have reported that there are some factors that are of great importance and need to be looked at during the establishment phase. The qualitative study participants have suggested the following implications and considerations need to be made during the establishment phase:

- Some of the respondents underlined that strong leadership from the ministries of health is necessary provide the sustainability to EMT. They are key the agency in charge of process; hence, their proactive engagement with other actors is crucial for the project; Besides, the respondents mentioned that EMT advocacy is strongly recommended and suggested several ways and formats in this regard. Namely, the Georgian respondents mentioned MIDPOTLHSAG should create a working group which will include all stakeholders including WHO, ASB, other agencies, and private hospitals. The involvement of the private sector in advocacy was also mentioned by the international officials. In the event that Georgia decides to enlarge the pool of volunteers and select candidates beyond EMSC, the advocacy with private sector can be applied to facilitate this process. Besides the working group, international respondents mentioned that EMT advocacy should be carried out at a higher political level too and might involve the President and/or Prime Minister to discuss the rationale for establishment, funding, geographic scope, etc.; the aim of EMT advocacy at higher decision-making levels should be the way that long-term functional and financial sustainability of EMT is obtained.
- The establishment require both the will and clear decision about where EMT will be located. In terms of sustainability of the system, part of the respondents recommended to establish EMT under an effectively functioning structure in order to avoid the formation of a new body. In this way, EMT will have more access to equipment and will guarantee its sustainability;
- In addition, the EMT requires a clear structure and well-written functions so that the overlap of functions with other agencies will not occur and the provided service will be complementary to already existing systems. In line with the structural arrangements, the EMT creation will require some legislative amendments to create the normative framework for operation nationally or internationally;
- Several KIs have mentioned that EMT creation will require some financial commitments and funding to maintain the system and ensure international engagement. The representatives of international EMTs have noticed that there is a lot of work that needs to be carried out during peace time including the management of the volunteer pool, the warehouse, logistics, and more, which require quite a lot of financial funding and commitments;
- Besides the funding, several KIs mentioned that it is very difficult to make the roster up and running particularly when you have rare deployments. It was noticed that EMT establishment require lots of engagement with volunteers in order to keep them engaged and human resource management is one of the things that needs to be taken into account when it comes to sustainability;

- It is also important to determine the geographic scope of activities whether the country aims to respond nationally or deploy regionally and internationally; in addition, the international deployment of EMT is a strategic decision and it requires the will of the decision-maker regarding the help the provision to other countries.

Regarding to the implications, the study findings showed that Georgia does not have many challenges regarding the leadership, decision-making, structure and coordination. This is because the Georgian MIDPOTLHSAG and EMSC have very good theoretical knowledge about EMTs and are in charge of the process; it is determined that it will be acting under EMSC where the National focal point is located, which constitutes the ideal case of EMT locations and coordination. In order to improve the coordination mechanism and customize them to meet the specific needs of EMT, some legislative amendments can be issued; however, there is no legislative obstacles for the establishment and risks of overlapping the functions between the agencies. The more or less challenging issue is funding; noteworthy, there are no financial obstacles during the establishment phase as ASB aims to purchase logistical equipment for the team and EMSC already has medical equipment which is important for lifesaving medical services. However, it is not clear if the structure will have enough funding in the long run to maintain the equipment, manage the warehouse, provide the trainings and retraining, allow the team to make international deployments or engage in international simulation exercises organized by international organizations. The KIs reported that the structure will be financed and agreement with decision-makers is already made though it is not clear what will be the exact budget of EMT. More decisions about EMT financing is not made so far. In terms of geographic scope, the Georgian EMT aims to respond the national health emergency situations and engage regionally too.

Conclusions and recommendations

The EMT initiative is an international concept that was created to enforce the international humanitarian aid system and contribute to capacity building at the international, regional and national level. The concept provides clear standards and guidelines which need to be customized to the national context in order to improve their systems and make them more resilient towards disaster risk management and health emergencies. Georgia has gone through a lot to get involved in the process. The country has made a final decision about the establishment of EMT, the leadership from the ministry of health and EMSE is very visible, the location of the new body is clear, agencies have no risk of overlapping functions, geographic scope has been determined, medical equipment is already in place that can be used for deployments. However, there are further needs that must be addressed. The corresponding study elaborated the recommendation package based on the international practices and standards which aim to further contribute to this process.

EMT workforce

- According to the findings, Georgia does not see many challenges in terms of the mobilization of EMT medical members and there are already interested individuals. In terms of medical workforce, it is recommended to develop the pool of volunteers which will be five times larger than the needed amount of personnel in the basic team that this will ensure the possibility of rotation if the deployment lasts longer than 2 weeks and reduces the risks associated with the timely mobilization of team;
- It is not recommended to have an established team fully engaged as EMT as it can risk the staff losing their qualification. It is recommended to have a pool of volunteers containing specialists with mixed profiles and experiences. In addition, it was recommended to have practitioners of internal medicine, pediatricians, gynecologists, dermatologists, and specialists able to treat wounds, traumas, burns, as well as maternal and child healthcare needs. During the COVID-19 pandemic, there was increased demand for infection specialists. The diverse composition of the volunteer pool allows the country to adapt to the needs of the requesting state and gather the team that will best suit the described request;
- It is recommended the Georgian team to carry out international deployments frequently and assist foreign countries. The international experience shows that deployments are the biggest motivation for the team. Carrying out of deployments soon after the accreditation is very important for the positive public image and proper communication with the volunteers;
- International experiences show that the roster management strategies of countries are focused on the transparency of systems, consistent communication and the equal inclusion of members. The study findings suggest that the development of a bottom-up system will be more efficient. In that sense, it is recommended that the EMSC training center gives space to roster members to deliver trainings that are interesting for volunteers or to organize some informal meetings to strengthen the team's spirit;
- It is recommended to select individuals with knowledge of different languages; the team leaders and deputy team leaders have to know English in order to report to EMT CC during international deployments;
- Based on the international experiences, it is recommended to have a psychologist in the team;

- Georgia expects many difficulties in terms of the mobilization of logisticians and technical staff. International experience shows that interagency cooperation boosts team capabilities and the mobilization of logisticians from the rescue teams can be helpful. In case of Georgia, the logistical staff can be mobilized from MIA as they were responsible for setting up tents for field hospitals during the COVID-19 response and have more experience of this kind. However, such pattern of technical staff mobilization will require the strong advocacy with MIA and close consultations with them to acknowledge their role in the process.
- It is recommended to sign partnership memorandums with volunteers and hospitals in order to increase their commitment and clarify the terms of cooperation;
- EMT teams need to go through proper preparation; it is recommended to elaborate the training modules which will be based on international experiences; it is important that the training programs are reviewed once a year to enrich them with new scientific, technological experiences and lessons learnt from the previous activations;
- It is recommended to have an allocated individual that is responsible for the organization and management of trainings;
- It is recommended to ask volunteers to attend several trainings and activities with some consistent frequency in order to ensure their preparation and evaluate their overall commitment;
- It is recommended to carry out lots of field exercises in order for volunteers to know the infrastructure of field hospitals, better know their reactions and work on their own weaknesses;

Legislative framework

- It is recommended to make amendments in the statute of Ministry of Internally Displaced Persons from the Occupied Territories, Labor, Health and Social Affairs of Georgia, the statute of EMSC, the annual governmental decree that approves the emergency health programs; It is recommended to review the governmental decrees and legislation regulating the emergency response mechanisms in order to improve the existing system, make them more responsive to health emergencies and increase the legitimacy of EMT itself;
- It is recommended to involve the head of EMSC and NCDC in the review of legislative framework and the heads of legal services of other agencies. Due to the fact that EMSC and NCDC were the ones engaged in COVID-19 response, it is anticipated that they have seen in practice the legislative and normative shortcomings that needs to be addressed. In addition, engagement of representatives of other entities will make the process more holistic and comprehensive.

Activation, mobilization coordination

- It is recommended to develop EMT activation mechanisms at the national level to determine which level of emergency and indicators will require its involvement;
- It is recommended to check the country regulations before the deployment particularly in terms of visa requirements, temporary medical licenses, customs regulations and vaccination passport requirements;
- It is recommended to communicate with team members to always have valid passports in order to avoid visa issues;

- The study findings suggest that medical licenses are part of acceptance. Based on the specific country-to-country agreement, several options can be selected to avoid implications related to medical licenses; teams can have letters from the ministry of health that medical team members are working specialists in the field, and the doctors can carry the copies of their certificates, which need to be prepared by EMSC in advance and temporary medical licenses can be issued on the site;
- It is important to check customs regulation before deployment and whether some medication from the list is prohibited. The study findings suggest that equipment should be placed correctly and the list of equipment should comply to logistics placed by the customs authority of the affected country;
- It is important to develop an efficient system of activation; volunteers should know that after the request they need to respond within in several hours and their statement of availability should imply that they are available for two weeks and employer and family-related considerations have been made before;
- EMT national activation will require inter-agency coordination involving the MIA, the Ministry of Defense, NCDC, and international organizations; international organizations can help countries in deployment of foreign EMTs; they can be a liaison and facilitate communication between affected country and responding EMTs in order them to receive the medical aid corresponding to the needs on the ground. The current study has not observed any overlap between the functions of existing structures; findings suggest that main structure responsible for the coordination of EMT operation will be EMT CC which will be subordinated to the emergency headquarter within the Ministry of Health.
- It is recommended to have a close communication and coordination with international and local organizations with capacity to share their expertise about the emergency response and reinforce the operational performance of national or foreign team (assisting with fuel, transportation, food, funding the missions of foreign NGO-based EMTs, etc.);
- Particular attention needs to be made to the cooperation with EOC-NET which can support the local capacity building during the peace time; in addition, EOC-NDET can support the national governments and contribute to efficient health emergency and emergency response management during the SODs.

Information gathering and reporting

- It is recommended to use MDS for the EMT performance monitoring; it is recommended to always use a paper-based system for information gathering and reporting in order to avoid technical errors.
- EMT CC can carry out field visits to monitor teams and inform them about the amendments in protocols or SOPs, issue recommendations or in case of drastic deviations, inform the relevant authorities;

Infrastructure

- WHO provides very clear guidelines and operational standards covering 13 major areas of infrastructure and WASH. The study findings suggest that there should be a clear vision of what kind of field hospital Georgia will have and what kind of logistical support it will need;

- It is recommended to have base tents and stretchers which will be available for the training center to deliver training to volunteers. It is important that base camps are solid and heavy enough to endure windy and bad weather;
- In addition, EMT type 1 needs to have sleeping bags, a water purification plan, which will be determined by how the countries provide the water to team, generators and lighting infrastructure, kitchen equipment, a washing machine, handwashing facility, toilets for team members and infected patients separately, showers, etc.
- Communication is an important part of EMT. According to the general guidelines, satellite phones are used for communication; however, international practice shows that carrying mobile phones and using of local SIM cards can also be beneficial and a cost-effective way to ensure teams have effective communication;

SOPs

- International experience suggests the involvement of an expert board and adoption of multidisciplinary approach in SOP elaboration can be beneficial to write the professional response to every procedural question; It is recommended to review SOPs once per year;
- SOPs need to be organized structurally, classified and numbered in order to facilitate further review and amendments in the document. It is a living document so it needs to be short, clear, precise and flexible. The corresponding study provides a structured list of SOPs, which can be addressed by the corresponding authority.

Policy implications

- The study findings suggest that the strong leadership of the Ministry of Health and EMSC is visible though the need of strong advocacy is necessary at the higher level of decision-making to increase the legitimacy of structure, ensure long-term financial and/or functional sustainability;
- It is important the advocacy campaign to provide enough financial sustainability to EMT and have consultations with decision-makers about the possibility of international engagement of Georgian EMT. Once, the system is created and accreditation is received, the deployment of team is very important for the functional sustainability of team; the more deployments team make, the more engagement will be made by the volunteers in the work of EMT.

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Annex #1 – The list of desk study materials

The list of literature studied in frames of desk study:

1. Minimum Technical Standards and Recommendations for rehabilitation for EMTs, WHO, 2016
2. Global Strategy for the Emergency Medical Team (EMT) Initiative (version 6/02/2018), WHO, EMT strategy advisory group
3. Year in Review 2018, Emergency Medical Teams Initiative, WHO
4. FMT guidelines, Blue Book: Classification and Minimum Standards for Foreign Medical Teams in Sudden Onset Disasters, Health Cluster, WHO, September 2013
5. The Regulation and Management International Emergency Medical Teams, IFRC and WHO, June 2013
6. Grant Application Form 2020 "for Grant for an Action", DRM 2020 Neighborhood and Enlargement; European Commission, Civil Protection Horizontal Issues / Disaster Preparedness and Prevention
7. Other locally available policy and legislative and other documents in both countries relevant to study subject.

Annex #2 – KII guides used for the field phase

KII guide for the Georgian national focal point

In-depth Interview Guide for country stakeholders (Key Informants)

Greeting, presenting study goals and objectives, taking informed consent.

Preparing audio recording of the meeting: We ask for the permission to record the audio and explain the goal of using recording audio / online meeting.

Self-introducing of the respondent:

- Please introduce yourself.
- Which entity do you represent?
- What do you do? How long have you been engaged in this activity?
- What experience do you / your organization have in managing emergencies/health emergencies/disasters? What is the target of your activity?

Part 1. EMT workforce
Questions related to WHO standards (for focal points and WHO representatives)

- First of all, WHO suggests us the term EMTs, which were called as FMTs (Foreign Medical Teams) in past. In your opinion which term is more applicable for this purpose and why do you think so?
- What are the basic requirements for EMT members according to the WHO certification standards (skills, education, years in practice, field of operation, etc)?
- Are there EMT specific skills and knowledge, that individual EMT members should possess in addition to their general medical education and practical skills? Please specify.
- What standard procedures for selecting / recruiting EMT members should be developed and be in place prior to establishment of EMTs?
- What are the standard requirements for EMT staff training, retraining and continuous education? How the plan should be developed and are there any specific requirements (how often, knowledge-specific topics to be covered, etc.) to be considered?
- Are international exchange visits among EMTs practiced / introduced as part of the WHO standards? Could you please tell us how this is practiced, how often and what the benefits of such exchange visits?
- Could you please tell us more about EMT Coordination Cell, what are the functions and how it is important to be established?
- What are the standard requirements for EMT configuration, composition and structure (doctor/nurse ratio, quantity, number of teams etc.)?
- What incentives are envisaged to further motivate and maintain EMTs functional and what is the international practice in this regard?

Other questions

- How do you think, what experience is / should be required for the EMT workforce? What academic degree should be considered sufficient? How many years of relevant working experience should be considered sufficient? Why do you think so? In your opinion, is it feasible to achieve considering the country context? Why do you think so?
- How do you think how the background and experience of existing medical staff corresponds to the needs of EMTs? If yes, why do you think so? If no, what should be improved? How should it be managed? Which entity should be responsible for it? Why do you think so? Do you see any obstacles in terms of mobilizing proper staff for EMTs? Please specify.
- What kind of EMT staff selection / recruitment procedures should be in place? what are the critically important criteria that should be part of the EMT recruitment process? What else? Why do you think so? Are there any other criteria, that could not attended / satisfied? Please specify.
- In your opinion, what should be the requirements for practice and qualification for EMT workforce? Who should determine them? On which basis should be those requirements developed?
- What trainings should be mandatory for the EMT workforce? Which entity should be responsible on development of these training modules / curricula? Who should be responsible on provision of these trainings? At what extent does the responsible entity have relevant knowledge to provide these trainings? Why do you think so? How often the trainings should be delivered (refreshment, transfer of new knowledge, etc.)
- How should the continuous medical education for the EMT workforce be maintained? Which educational/training tools should be applied? How should the periodicity for the continuous medical education activities be determined? Why do you think so?
- How should the periodical assessment of the EMTworkforce take place? What tools / instruments should be considered to make assessment effective? Which entity should be responsible for theassessment? Is there sufficient competence within the country to be able to provide quality assessment according to the internationally set standards? What periodicity should be determined on this purpose? Why do you think so? Which components should be assessed in order to maintain the sufficient quality of practice and knowledge, for EMTs' readiness for the health emergencies/disasters?
- What incentives, motivation mechanisms in your opinion can effectively increase EMT's motivation and why do you think so? What are established international practices in this regard? What are the mechanisms / incentives that could be considered in Georgia?
- Besides the qualification and experience, please provide your opinion regarding the EMT team configuration and structure for EMT type 1 (for both, mobile and fixed separately)? How the EMTs should be configured and structured?
    - How do you think, should those trainings be already held to model the potential landslide situation in Vashlijvari district, Tbilisi, Georgia? Would it be helpful if the potential situation takes place? How do you think, would the knowledge we spoke above be relevant while flood of 13-14 June 2015, in Tbilisi, if EMTs were available at that moment?
- In your opinion, what stands for the multidisciplinary practice for the EMTs? How should it be integrated with other disciplines in order to provide smooth collaboration? Should the

interdisciplinary teams participate in mutual trainings/modelling in order to achieve the most coordinated working capacity?
- Sudden-onset disasters (SODs) require immediate action from the EMTs. How do you think, how the timely availability of the teams can be managed?
- Deployment of Foreign Medical Teams (FMTs) during the SODs include number of bureaucratical issues. E.g. temporary medical licensing for the medical staff. How challenging can it be within the existing legislation/requirements in Georgia? Why do you think so? How can it be addressed in case of SODs and EMTs?
- Another important issue is customs clearance when the FMTs arrive. How flexible can the Georgian customs be for the timely arrangement of the customs service? What challenges do you see in this direction? How they can be addressed?
- Which particular entities will be / should be involved in overall coordination of EMTs and why their involvement / participations is important / critical in your opinion?

Part 2: Standard Operating Procedures (SOPs)
Question for focal points and WHO representatives

- Which SOPs according to the WHO standards are to be developed for establishment and operationalization of EMTs?
- "Standard Operating Procedures for Crisis"

Question for other stakeholders

- Which SOPs in your opinion need to be developed for establishment and operationalization of EMTs? What are the country specific needs in this regard?

Ask to all KIIs:

- Who should develop the SOPs (ask about multidisciplinary team, requirements/ recommendations for composition etc.)?
- What should be included/covered under the SOPs (main sections/sub-sections etc.)?
- What are the formal / practical steps and basic requirements to get approval (procedures, responsible entities /structures)?
- Based on other countries experiences, what time is required in general to get approval?
- Who is the eligible body / structure to issue the approval?
- How the response needs should be classified? Who should develop the criteria for the response needs in order to involve the relevant EMTs? Why do you think so?

Part 3. Logistical support and security procedures

- What are the minimum technical standards according to the WHO for EMT logistical support required on site to make teams operational and how this should be regulated (established, maintained and assessed)? Ask for water, power and lighting, food, waste disposal, sanitation, transport, communication etc.
- Do the standards leave room for flexibility or it should be strictly adhered in order to get approval for operationalization?

- What kind of security risk management system should be in place to ensure the EMTs operate in a safe environment and who is responsible for security risk management? What are the basic / standard requirements for countries in this regard?

Part 4. Equipment and consumables

- Which entity should develop the pre-defined list of equipment and consumables for EMT type 1 (outpatient emergency care) – for mobile and fixed separately? Why do you think so?
- Project envisages procurement of all necessary equipment/consumables by ASB . Which entity will / should take ownership / responsibility on procured items (equipment / consumables), its storage, maintenance / stock replenishment in a short as well as long-term period?
- What are the internationally established criteria ASB should follow / adhere while procuring necessary equipment / consumables? What would be your recommendations in this regard? Is there standard procedures / list for requirement that needs to be developed / adopted? Do you see any obstacles in this regard? What are the risks ASB should consider and manage?
    - How should be the quality of the procured equipment/consumables controlled? Who will be / should be the entity who should be responsible for quality control?
- How do you think, how the EMTs' warehouse should be managed?
    - Which entity should be responsible for keeping and managing the EMTs' warehouse? Why do you think so?
    - Where should the warehouses be located? Should it be a centralized one or scattered through the whole country? How can you rationalize your position?
    - Usually the disasters are sudden on-set, how do you think the amount of the consumables/equipment should be determined to be kept for the timely availability?

Part 5. Field hospital accessibility and rehabilitation space

- How should the requirements for physical accessibility of field hospitals be developed? Who should be responsible on it? Why?
    - Who should develop/adapt the detailed SOP / guideline on the physical accessibility of the field hospitals for the EMTs? How these documents should be disseminated to the EMTs? Should the training be held in order to introduce to the teams? If yes, how do you think, in what form?
    - Who should develop the detailed SOP / guideline on space requirements -? How these documents should be disseminated to the EMTs? Should the training be held in order to introduce to the teams? If yes, how do you think, in what form?

Part 6. Patient management

- Availability of detailed SOP / guideline on patient management pathway
    - Who should develop the detailed SOP / guideline on patient management pathway? How these documents should be disseminated to the EMTs? Should the training be held in order to acknowledge the teams with it? If yes, how do you think, in what form?
- Availability of detailed SOP / guideline on optimal care, discharge / referral and follow-up
    - Who should develop the detailed SOP / guideline on optimal care, discharge / referral and follow-up? How these documents should be disseminated to the EMTs? Should

the training be held in order to acknowledge the teams with it? If yes, how do you think, in what form?

Part 7. Information management

- Availability of detailed SOP / guideline on information / records management
    - Who should develop the detailed SOP / guideline on information / records management? How these documents should be disseminated to the EMTs? Should the training be held in order to get familiar the teams with its content? If yes, how do you think, in what form?
    - How do you think, is the specific Health Information System (HIS) necessary to be developed for the health emergencies/disasters situations in order of proper management of records/information? Why do you think so?
- Data collection/reporting methods and management
    - Data collection/reporting during the emergencies is challenging. How do you think, what strategies should be applied to make this process more efficient, but less challenging? Please rationalize your statement.

Part 8. Health emergency response research

- Ethical standards for research
    - How do you think, which directions of health emergency response require further research? Why do you think so?
    - How should the ethical standards for the health emergency response research be followed?
- Collaboration
    - In your opinion, which institutions and agencies should the entities/persons undertaking the health emergency response research collaborate with? Do you think collaboration is essential during this research process? Why do you think so?
- Leadership
    - How do you think how the leadership should be distributed when the local and international EMTs are involved in disasters management? And in case the EMTs from another part of the country visit to help in disasters management?
    - How should the roles be distributed? Should the single approach be applied for every case or determined per situation? What should be obstacles during distributing the roles and leadership? Why do you think so?

Part 9. Questions regarding policy implications and impact

- Policy-related obstacles
    - How important is establishing EMTs for the country in your opinion and why do you think so? How do you think, what are the benefits which can be brought by establishing/functioning of these teams for the country? What can't be done or may be done but not sufficiently while such teams don't exist?
    - What are the major problems which may the country face during establishing the teams? What are the country-specific risk factors hindering the process / threat effective functioning of the teams or their long-term sustainability? Why do you think so?

- How do you think how realistic and feasible it is to adapt the internationally recognized certification standards considering our country context? If no, where do you see the issu/risk? What should consider the country to manage the process without obstacles? What are the major issues related to the large human, financial and time resources? Why do you think so?
- Who are the major participants and stakeholders involved in the processes of establishment and following management/support of the EMTs? Engagement of which structures is critically important and how do you see distribution of roles, functions and responsibilities amongst these structures / stakeholders? (Ask about various ministries, state agencies, NGOs, medical unions, donors, business sector, etc.).
- Is there a risk of overlapping the roles/functions at this stage (or the risk of incomplete coverage of any function / role) and if yes, please specify? What mechanism exists / should exist to provide effective coordination of the major actors and stakeholders? What risks do you see in it?
- How do you think the existing legislative framework addresses the challenges associated with the emergencies/disaster management? Do the existing laws or other legislative acts have the gaps potentially hindering the execution of the proper management during the health emergency situations? If yes, please tell me in details, what are the issues? Do you have any examples (e.g. during the disaster management during 2015 flood in Tbilisi)?
- Please tell us about the major documents available at the country level (Normative acts, legislative framework, reports, other basic documents, etc.), review/analysis of which can be helpful during this research, will help us in versatile assessment of the existing situation, comparing with international requirements and develop the specific recommendations?
- How do you think what should be changed in the existing legislative framework to make it more flexible for managing the health emergencies/disasters? Why do you think so? How do you think, those changes are feasible in our reality? Why do you think so?
- In your opinion what aspects in local legislation could potentially hinder smooth establishment / operationalization of EMTs in the country? Please list all and specify in sufficient details. How you think the mentioned issue could be addressed?

- Leadership commitment
  - What are the major supporting factors allowing in establishing the teams, promoting their following effective functioning and prognosing their long-term smooth maintenance? What other factors are such?
  - How do you think does the readiness and political commitment regarding creation and maintaining the EMTs exist at this moment? Why do you think so?
  - What challenges should we face in terms of leadership commitment? Please rationalize your position.
- Financial aspects
  - In your opinion, does the country has the financial basis / resources in order to create EMTs and maintain them in sustainable manner?

    - What financial challenges do you see in the process? How do you think they can be settled? Please rationalize your position.
- Monitoring and reporting
    - In your opinion which entities should develop EMTs' monitoring and reporting framework?
- Advocacy
    - How do you think, which entities should take responsibility to advocate the need of EMTs and their development? How should it be managed? Why do you think so?

- Who are the most critically important Informants / structures who can be interviewd within this research? Can you share their contact information or help us in contacting them?
- And lastly, where / in which particular area do you see your role / involvement in EMT establishment / functioning? What will be your functions? What challenges do you see in your scope and how would you manage them? Please specify.
- Why EMTs are important and what are the values and benefits they will bring? Please specify.
- How do you think, which disasters in Georgia and/or Caucasus region in the nearest past should deploy EMTs to make the harm less? Please specify.
- What particular steps / measures from your side should be taken to make this happen and make EMTs effectively functional? How do you think, would you need to adapt international standards toward the national context? Please specify.

Thank you for collaboration!

KII guide for international and local KIs

In-depth Interview Guide for country stakeholders (Key Informants)

Greeting, presenting study goals and objectives, taking informed consent.

Preparing audio recording of the meeting: We ask for the permission to record the audio and explain the goal of using recording audio / online meeting.

Self-introducing of the respondent:

- Please introduce yourself.
- Which entity do you represent?
- What do you do? How long have you been engaged in this activity?
- What experience do you / your organization have in managing emergencies/health emergencies/disasters? What is the target of your activity?

Duration: 1-1.5 hours

- In your opinion, what kind of importance and benefits does EMT establishment have for any country? Why do you think so? Can you recall what was not done sufficiently before the EMT establishment? Can you specify the cases?
- How you do you think, what are the major factors in the countries that might obstacle the EMT establishment, functioning and sustainability? Why do you think so? What do you think about the hindrance in Georgia, what it might be?
- In your opinion, is it easy and feasible to adapt internationally recognized certification standards to the Georgian national context? If no, what can be the major obstacles? (ask about the obstacles about the human resources, time, finances, etc)
- Can you specify and recommend us the international documents and reports that might be interesting for this study and will help the research team to get better insight and elaborate the recommendations?
- How do you think, which organizations should be responsible for the elaboration of EMT monitoring and reporting framework?
- And which organization should be responsible for the advocacy about necessity and establishment of EMTs? How do you think, what are the best way to manage the advocacy? Why do you think so?

EMT workfoce, competences?

- What are the basic requirements for EMT members according to the WHO certification standards (skills, education, years in practice, field of operation, etc)?
- Are there EMT specific skills and knowledge, that individual EMT members should possess in addition to the general medical education and practical skills? Do you see any obstacles in the recruitment and mobilize stuff for EMT? Please specify.
- How do you think, what can be done in terms of EMT contract management not to create the contradictions between their major work and cause team demotivation? Are there any international experiences that are successful and can be applied? Can you share them?

- What are the practices for the motivation and encouragement of EMT members? Can you tell about your or any other countries experiences that you perceived as successful?
- What are the standard requirements for EMT staff training, retraining and continuous education? How should the plan be developed and are there any specific requirements (how often, knowledge-specific topics to be covered, etc.) to be considered?
- Can you recommend how frequently should EMT be engaged in international exchange visits and what kind of benefits this activity can have for team? How do you think which structure should be responsible for the training and evaluation of EMT members? Can you specify how the training and evaluation should be carried out? How can SOPs regulate this issue? What should be the main content of SOP that will regulate the training, retraining and evaluation of EMTs?

Logistics and coordination

- To speak about the experiences of your country, is it easy to mobilize the EMTs? What time does it take? What are the challenges connected to the mobilization of teams for the particular mission and that might prolong the process? Can you recall any other obstacles regarding the mobilization?
- During the SODs, the Foreign Medical Teams (FMT) face number of bureaucratic challenges, for instance, obtaining temporary medical licensing for medical staff. To what extent such obstacles are detrimental for the EMTs timely engagement? What are the typical bureaucratic challenges facing EMTs and what are the solutions for them? how can the bureaucratic challenges be handled during the SODs?
- What are the minimum technical standards according to the WHO for EMT logistical support required on site to make teams operational and how this should be regulated (established, maintained and assessed)? Ask for water, power and lighting, food, waste disposal, sanitation, transport, communication etc.
- How should be the pre-defined list of equipment and consumables from EMT Type 1 (outpatient emergency care) be created (for fixed and mobile separately)? Why do you think so? Is there any pre-defined list that is established and should be applied during the establishment? If yes, please specify and help us in accessing this list. If no, what would be your recommendations?
- Project envisages procurement of all necessary equipment/consumables by ASB. Which entity will / should take ownership / responsibility on procured items (equipment / consumables), its storage, maintenance / stock replenishment in a short as well as long-term period?
- What are the risks connected to the procurement of equipment and consumables which ASB should consider?
- In your opinion, how should be logistics managed at the direct place of SODs?
- Data collection/reporting during the emergencies is challenging. How do you think, what strategies and Health Information Systems should be applied to make this process more efficient, but less challenging? Please rationalize your statement.
- How do you think which agencies should be engaged in EMTs coordination? In your opinion, how important is the engagement of other agencies?

- How do you think how should the constant monitoring of quality should be carried out? Who should take responsibility over the quality monitoring? What would be recommendations in this regard?

Standard Operation Procedures (SOPs)

- WHO standards inform to create the SOPs regarding the every step of EMTs. What would be your recommendations, to which directions can SOPs be elaborated/developed? What should be the structure of SOPs? How detailed the SOPs can be?
- How should EMTs be informed about each SOPs? Should the trainings about SOPs be carried out?

Thank you for the participation!

Annex #3 – the list of KIs interviewed

The list of Key Informants interviewed in frames of Field Phase in Georgia

#	Name and surname	Position
1	Amiran Gogitidze	EMT focal point of Georgia LEPL Georgian Emergency Situations Coordination & Urgent Assistance Center – Georgia EMSC
2	Irma Kitiashvili	Head of Legal Service of the Ministry of Health
3	Nino Barkaia	Dead of international relations department of Emergency Situations Management Service under the Ministry of Internal Affairs of Georgia
4	Ana Kasradze	National Center of Disease Control and Public Health - NCDC
5	Florian Hauke	FAST TEAM ASB Germany
6	Veronika Wolf	WHO German EMT National Focal Point (RKI)
7	Oleg Storozhenko	WHO EURO
8	Gino Claes	Strategic Counselor Disaster Management Head B-FAST, EMT coordinator Belgium
9	Raido Paasma	Estonian EMT

The initiate list of stakeholders contained Luca Ragazooni from Italian EMT. During the field phase, the letter of invitation to the study was sent but the response was not received at all.

Annex #4 - Clinical Care Standards for EMT type 1 fixed

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
1	Triage	Initial and field triage	1. Triage protocols 2. Mass Causality Management (MCM) Plan 1. Patient identification system for tracking	Triage protocols per event	Leader per shift, considering his/her training and experience	Establishment of single-entry point Safety / security	Interpreters should be available Cultural aspects should be considered
2	Assessment, resuscitation and stabilization	Basic resuscitation and stabilization	1. Protocols on resuscitation, transportation and care	Relevant documents		Laryngeal mask or endotracheal intubation	
3	Referral and transfer	Basic referral and transfer	1. Protocols on patient referral and transfer 1. Standard form and system for patient referral and transfer 2. Written information on patient condition, treatment, transfer details	Patient referral and transfer protocols and procedures			

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
4	Ward management	Basic nursing care	1. Documented discharge document / copy of patient records	Emergency and primary care		Medical supervision 24/7 or on-call Information flow to patients / relatives Assistance in transportation, follow-up Provision of medication, rehabilitation, wheelchairs or crutches, etc. (per intended need) Visiting arrangements	
5	Wounds	Initial wound care	1. Specific clinical guidelines (21)	Relevant documents			
6	Burn	Superficial burns of ≤5% Total Body Surface Area (TBSA) First aid and referral for burns >5% TBSA	1. Local and national protocols for burn care 2. Recommendations for burns care in mass casualty incidents (22)	Relevant documents		Establishment of appropriate referral pathways	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
7	Fracture management	Basic fracture management	1. Management of Limb Injuries during disasters and conflicts (21)	Relevant documents		Referral to type 2 or 3 EMTs equivalent facility	
8	Spinal cord injuries	Assessment and transfer Early recognition Immobilization and appropriate care	1. Emergency medical teams: minimum technical standards and recommendations for rehabilitation (23)	Relevant documents		Informing MoH/EMCC using reporting system	
9	Communicable diseases	Isolation facilities		Relevant procedures		Provision of handwashing and sanitation facilities Infected water waste treatment Separation of PPE areas Rapid set-up tent for isolation PPE Functional linkages with existing and available public health resources ad capacities Reporting using MDS or another pre-agreed format	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
10	Noncommunicable diseases	Basic outpatient chronic disease care	1. Noncommunicable Diseases in Emergencies (24) 2. National Guidelines (when applicable)	Relevant documents		Minimum two weeks care for patients with NCDs Referral to higher level / specialized facilities	
11	Reproductive, maternal and newborn healthcare	Basic emergency obstetric and neonatal care / sexual and reproductive health	1. Minimum Technical Standards and Recommendations for Reproductive, Maternal, Newborn and Child Health care (25) 2. Relevant SOPs (including SGVB) 1. Document labor and care per national protocol 2. Provision of minimum birth notification	Relevant documents Awareness on Sexual and Gender-based Violence (SGVB)		24/7 readiness to admit women in labor Provision of parenteral antibiotics, uterotonics, eclampsia treatment, basic resuscitation Emergency contraception of victims of sexual assault PEP HIV, tetanus vaccine	
12	Child health	Basic outpatient pediatric care and stabilization	1. Minimum Technical Standards and Recommendations for Reproductive, Maternal,	Adaptive training for child health care		Equipment, consumables, enough essential newborn and pediatric pharmaceuticals for at least 14 days	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
		Nutrition screening	Newborn and Child Health care (25) 1. Clinical documentation system for pediatric patients 2. Registration system and procedures for unaccompanied minors 3. Documentation and reporting system for unexplained injuries				
13	Analgesia and anesthesia	Local anesthesia and pain control	1. World Health Organization-World Federation of Societies of Anaesthesiologists (WHO-WFSA) International Standards for a Safe Practice of Anesthesia (26) 1.Patient documentation (history, physical	Relevant training / expertise		Procedural sedation is permissible if relevant expertise is present in team	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
			examination, consent, expected progress, follow-up)				
14	Intensive care	N/A					
15	Surgery and perioperative care	Minor procedures with local anesthesia	1. Surgical Safety Checklist (27) 2. Comprehensive clinical records 3. Consent 4. Surgical process records 5. Post-surgical recovery plan 1. Informed consent form 2. SOPs for patients who can't give consent and haven't relatives	Training and licensing in every procedure they perform		Sterile environment for minor procedures Analgesia / local anesthesia Minimal movement in the area where procedures are performed Limited air turbulence Consumables for surgical procedures PPE for staff	
16	Malnutrition	Screening, initiation ambulatory treatment	1. Utilization of mid-upper arm circumference versus weight-for-height in nutritional rehabilitation	Relevant documents		Limited amount of therapeutic food	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
			programmes: a systematic review of evidence (28) 2. Management of severe acute malnutrition in infants and children (29) 3. Other relevant documents				
17	Palliative care	Initial palliative care with referral	1. Guidelines and internal procedures on palliative care	Palliative care, including pain and symptom control, mental health and psychosocial support			
18	Rehabilitation	Basic rehabilitation care	1. Minimum Technical Standards and Recommendations for Rehabilitation (23)				
19	Mental health and psychosocial support	Assessment, psychosocial first aid, referral if indicated	1. MhGAP: Mental Health Gap Action Programme: scaling up care for mental, neurological, and substance use disorders (30)			Adequate stock of psychotropic medicines (31)	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
			1. Institutional policies on mental health 2. Processes and procedures for staff/volunteers' mental health				
20	Blood transfusion services	N/A					
21	Laboratory services	Basic outpatient testing Rapid diagnostic tests	1. Clear guidance and procedures 2. Documented results 3. Laboratory waste management plan	Staff training, when laboratory technician isn't present in team		Endemic disease rapid diagnostic testing (RDT) Basic diagnostic tools (urine pregnancy test, urine dipstick, blood glucose, hemoglobin testing) Relevant temperature environment for tests and reagents	
22	Medical imaging and reporting	N/A		Relevant training of staff who don't usually dispense medicines			If performing ultrasound examination is possible within team competence, it's welcomed for triaging and

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
							better decision-making
23	Clinical pharmacy and consumables	Outpatient drug supply for declared capacity Tetanus prophylaxis	1. Formulary, according to WHO Model List of Essential Medicines (32) 2. Procedures according to Good Pharmacy Practice (33)				Near-miss incidents reporting system
			1. Documented process for dispensing 2. Documented process for prescription 3. Process to access information on medicines 4. Guidance notes on prescription (14)				

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
24	Sterilization	Basic steam autoclave or disposable material	1. Decontamination and reprocessing of medical devices for health-care facilities (34) 1. Safe procedures for staff working in sterilization area 2. System for traceability and quality control, documentation and record keeping of all steps of the decontamination cycle 3. Manual cleaning procedure	Training in routine practices		Basic steam autoclave or disposable materials Division of sterilization facility into areas with workflow from dirty to clean Grey water management system	
25	Infection prevention and control (IPC)	Adequate IPC	1. Standard precautions in health care (35) 1. Plan for reporting and investigating cross infection and measures to prevent repetition	Relevant training on IPC activities and internal protocols	IPC focal point	PPP for staff working in key areas Plan layouts that minimize risk of cross contamination and patient flow to minimize exposure of high-risk patients and facilitate patient transport	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
			2. Procedure on transmission-based precautions by route of transmission			Choose staff clothing with respect to adequate cleaning possibilities and laundry services that can reach adequate temperatures Use materials and fabrics that are easy to clean	
26	Health promotion and community engagement	Application of Principles of Community Engagement (36)	1. Communications plan (37) 2. Integration IEC materials into daily operations 3. Media SOPs	Training on key elements of the communications plan and the soft skills			
27	Chemical, biological, radiological and nuclear (CBRN), toxicology and toxinology	Assessment, decontamination where possible, first aid and referral	1. Protocol on recognition and assessment of symptoms and signs of chemical, toxicological and toxin exposures and first aid 2. SOP on referral to relevant facility 3. National protocols			Relevant PPE Decontamination means	

N	Clinical care	Scope for EMT type 1 (fixed)	Documents	Training/education	Leadership	Coordination / Monitoring / Logistics / consumables requirements	Notes
			4. Specialized texts and resources available to staff				

Annex #5 The infrastructure management and logistical support to EMT

The clinical care technical standards for EMT according to the WHO Blue Book (2021)

- Assessment, resuscitation and stabilization
  - Laryngeal mask or endotracheal intubation, in which case basic capnography is needed.
- Isolation, safe referral and detection of commutable diseases
  - Provide the isolation facility (tent)
  - Ensure availability of handwashing and separated sanitation facilities
  - Establish infectious water waste treatment
  - Separate donning (at entrance) and removal area (at exit) for PPE.
  - Establish case definitions at the triage area, screen for and identify potential communicable disease and create a dedicated patient pathway. Isolate patients with potential communicable disease.
- Sterility
  - Basic steam autoclave or disposable materials are required
  - Sterilization area should be divided in areas (to wash, check and maintain, prepare, pack and sterilize instruments and equipment) with a clear unidirectional workflow from dirty to clean.
- Medical consumables and equipment to deliver patient care
  - EMTs should have a minimum of three days' stock supply of pharmaceuticals and medical consumables for national deployment and a minimum of 14 days for international, with a resupply system in place to ensure availability of pharmaceuticals and consumables throughout the deployment period.
  - A complete inventory of deployed items needs to be available electronically and physically at all times and periodic inventory counts should be carried out to maintain an overview of existing stock supplies, tracking of consumption trends and maintaining an audit trail for inventory control purposes.
  - Assign a dedicated space for pharmacy and storage of medical supplies with restricted access.
  - EMTs should have storage boxes appropriate for medical and pharmacy supplies and equipment, ensuring that these are clearly marked and protected from excess heat and moisture.
  - Cold chain drugs and vaccines require specific and technically professional packaging for transport. This must include a temperature tracker to identify breaches in the cold chain.
  - A strict mechanism for monitoring the use of controlled drugs should be established, limiting access to authorized personnel and in accordance with national regulations.

    - EMTs need to ensure access to an effective and reliable supply of oxygen necessary for the medical team to meet clinical standards of care. WHO recommends to provide oxygen supply by cylinders and/ or concentrators.
- Dead body management
    - Determine a dead body management procedure which should include a tagging and identification process (including photography) of any dead body or body part within the morgue.
    - An area (tent) should be used as a temporary morgue before releasing dead bodies to relatives or their communities for disposal according to local custom and practice. This is not applicable to Type 1 Mobile.
    - Ensure the ability to store two dead bodies in a dedicated tent.

The operational support technical standards for EMT according to the WHO Blue Book (2021)

#		Requirements	
1	Power	• 5–10 kVA petrol generators • Fuel reserve • Lighting materials for provision of electricity of field hospitals	
2	Communication	• Unlocked local SIM cards for non-smart phones and smart phones • Low earth orbiting Iridium type satellite phone for voice satellite broadband for data connectivity and voice at base camp	
3	Water supply	• Team members 40– 60 litres/ppd (per person per day) • Outpatients 5 L/ppd • An additional 150 L potable water per day will provide for cleaning and sterilization if required.	Total water requirements 26-person team (26 p x 60 L/pd) + (100 outpatients x 5 L/pd) +150 L = 2210 L per day Total storage needs: 2210 x 3 (72 hours' storage) = 6630 litres ≈ 7000 litres storage capacity
4	Hygiene	• Teams must ensure they have appropriate arrangements for adequate hygiene at the facility (meaning handwashing stations, handrub, alcohol-based solutions). • Minimum: • One handrub solution at points of care. • Handwashing stations in communal areas and main entrance to the hospital facility. • Hand hygiene promotion IEC materials clearly visible and understandable at key places.	Team of 26 Handwashing stations 7–10 Staff showers 2

5	Environmental cleaning	• No reusable linens required; however, EMTs must have protocol for addressing soiled staff clothing. • Appropriate and well-maintained materials for cleaning (meaning detergent, mops, buckets, etc.) are available. • At least two spill kits per clinical area • Separate (equipment, procedures) the cleaning approach with regard to the risk area. • At least two pairs of household cleaning gloves and one pair of overalls or apron and boots in a good state, for each cleaning and waste disposal staff member.	
6	Waste management	• Type 1 fixed need a technology with a minimum treatment capacity of 10 kg per day. • Infectious hazard containment needs: 100 litre containment capacity.	100 outpatients per day, 0.07 kg infectious waste per patient, maximum storage of infectious waste: two days (48 hours). Calculation: 100 patients x 0.07 kg/ patient x 1.2 (safety margin) = 8.4 kg infectious waste per day two days of storage x 8.4 kg per day = 16.8 kg every two days Result: This Type 1 fixed needs a technology with a minimum treatment capacity of 16.8 kg (every two days)

		• Toilets clearly separated for staff and patients. System in place that identifies which toilets are for staff use and patient use.
		  ○ Staff: 2
		  ○ Patient area: 4 (2 outpatient) (1 isolation toilet) (1 limited mobility accessible toilet)
		• Latrines	

		○ Team members 1:20 latrines gender separated Outpatients 1 : 50 latrines ○ Gender ratio, people with disability, child friendly considered. At least one toilet provides the means to manage menstrual hygiene needs. At least one toilet for isolation ward. ○ Outpatients: 100 outpatients ○ 3 latrines waiting area (2 separated by gender and one for pwd adapted for children) ○ latrine isolation ward = 4 latrines • Faecal sludge management at containment and onsite treatment if local structures are not able to assume the waste. • Showers/washing ○ wash stand ability for gross cleaning of outpatient if required prior to assessment ○ male/female staff shower ○ 2 showers per 26 persons • Grey water management grease trap plus infiltration or containment and treatment ○ Total grey water approx. 1500 litres	

Annex #6. The infrastructure management and logistical support to EMTs

The list of inventory for field hospitals

	Components	Description
1	Tents	• **There should be tents for accommodation, sleeping, treatment area, storages (for pharmacy, fuel, consumables, dead body, isolation tent for infected patients)** • **Georgia is expected to need about 11 tents for whole operation for the team of 21-23.** However, the final configuration of team is not approved and it is possible to change it afterwards. • Part of tents will be 30 sq. and part of them will be bigger about 60 sq. • International experience shows that there should not be more than 10 individuals per sleeping tents. 6-8 individuals per camp is optimal to ensure the protection of privacy of staff. Based on it, Georgia will need about 3 tents only for sleeping area (30 sq. each). • There will be 3 tents only for treatment area. 1 for triage (30 sq.), two for red and yellow patients (50 sq. each).
2	Stretchers	• **Georgian teams will need about 30-40 stretchers for triage and treatment areas.**
3	Sleeping bags	• There should be sleeping bags for team members and reserve bags also need to have. • Interestingly, some international teams ask the team members to bring their own sleeping bags due to the hygiene. • **There should be about 21-23 sleeping bags for base team and reserves in case of damage of some.**
4	Lighting/electricity	Georgia will need the generators, lighting cables and LED lights. • It is planned the Georgian team to have combined **generator** producing about 60 or 70 kVA; the generator needs to be made of two components (30-30 kVA) in order to save the electric resources. That generator will be enough for the operation for whole team. • International experience shows that generators should not be too have and they could be carried by 4-6 individuals in case of such necessity.

		• The team will need the various **electricity cables**. They need to have enough permeability so as not to overheat and cause fire. • The team will need **the LED lights within and outside the tents.** The final quantity of LED lights and electric cables is not calculated yet as the final configuration of EMT is not approved yet.
5	Water supply	• The team of 21-23 will need about 2 tone of water per day. WHO standards suggest to have a storage of 72 hours and reserve of 6-7 tones. • The water supply requires two main inventories: **water reservoirs and water treatment plant.** • Georgian approach holds to bringing the reservoirs for the first days (6-7 tones) and find the sources of clean water in the first days of deployment. Hence, the team will need the water reservoirs with capacity to store 6-7 tones of water. • In case, country will decide to provide the purified water the ultrafiltration system can be used in this regard. The teams usually have small capacity ultrafiltration (500 or 1000 L per hour) and produce the clean water on a daily base. Such teams usually have separate reservoirs for raw and clean waters.
6	Hygiene	The team needs handwashing facility, showers and bio-toilets for staff and patients. The toilets and showers should be separated by gender. WHO standards suggest to have at least: • **7-10 handwashing facility for team of 26;** • **2 showers for staff;** • **6 toilets in sum: two for staff, 4 for patients (2 outpatients, 1 isolation toilet, 1 limited mobility accessible toilet).** Usually teams have separate tents or pavilions for the hygiene area. Georgia aims to have a separate tent for it. Noteworthy, this is minimal standard for EMT type 1. International experience shows that some teams have for example 4 showers on regular basis and can increase the number up to 8. Some of them separate showers for patients. In addition, WHO standards suggest to use latrines too though they are less applied by the international teams.

7	Waste management	• **Rubbish bins separately for the medical waste and household waste (2 bins);** • There should be separate infectious hazard containment facility with 100-liter capacity; • International teams use **incinerators** for waste management (for example, Smart Ash with capacity of 20-25 liters). • WHO standards state that the waste needs to be processed in every 48 hours on maximum.
8	Pest and vector	• It is recommended the teams to have **mosquito nets** per tent.
9	Communication	• **Satellite phones;** • **Mobiles.**
10	Other inventory	• **Kitchen equipment;** • Some **furniture** for the resting, conference and other spaces; • **Wash machine;** • Up to **200 storage boxes**, preferable wooden or alu boxes, for storage of equipment, food, and other inventory; • **Jerry cans** need to be purchased for the fuel storage. In addition, it is recommended to have a separate area/space for the fuel storages and identify individuals who will have access to the storages, particularly, of fuel reserves; • **Fire extinguishers or/and smoke detectors** per camp; • **Pavilions** are used frequently by some teams for hygiene area (toilets, showers, storages, for placement of motor equipment etc.). It is recommended to have some equipment to setup pavilions for teams in case of necessity.

Annex #7 – The List of SOPs

Standard Operation Procedures for EMT type 1 mobile elaborated and offered based on the qualitative study findings:

- SOPs on operational readiness
    - SOPs for warehouse management;
    - SOP for trainings, retraining and continuous education;
    - SOP for EMT volunteer recruitment and requirements;
    - SOP for volunteer pool management;
- SOP on EMT activation;
- SOP on EMT mobilization;
- SOP on EMT coordination mechanism;
- SOPs on clinical care
    - SOP on initial and field triage;
    - SOP on Mass Causality Management (MCM) Plan development;
    - SOP on basic assessment, resuscitation and stabilization;
    - SOP on patient transportation, referral and transfer;
    - SOP on ward management;
    - SOP on Initial wound care;
    - SOP on burn care;
    - SOP on fracture management;
    - SOPs on spinal cord injuries;
    - SOP on communicable diseases;
    - SOP on non-communicable diseases;
    - SOPs on reproductive, maternal and newborn healthcare (including Sexual and Gender-based Violence (SGVB));
    - SOPs on child health and nutritional screening;
    - SOPs on Analgesia and anesthesia;
    - SOPs on Surgery and perioperative care (minor procedures within the scope);
    - SOP on malnutrition screening and management;
    - SOP on palliative care;
    - SOP on rehabilitation;
    - SOP on Mental health and psychosocial support (can be separately for staff and patients);
    - SOP on Laboratory services;
    - SOP on Clinical pharmacy and consumables;
    - SOP on Sterilization;
    - SOP on Infection prevention and control (IPC);
    - SOP on Health promotion and community engagement (including media SOPs);
    - SOPs on Chemical, biological, radiological and nuclear (CBRN), toxicology and toxinology;
    - SOP on emergency vaccination.
- SOP obtaining informed consent containing protocols how to treat patient when they cannot give consent and does not have relatives, accompanying persons;

- SOP on identification and management of victims of violence including home-based and sexual harassment;
- SOPs on logistical support
    - SOP on site assessment and planning;
    - SOP on power and fuel;
    - SOP on communication;
    - SOP on transportation and fleet;
    - SOP on food provision;
    - SOP on pharmacy supply chain and medical stock management (including cold chain);
    - SOP on addressing the oxygen needs;
    - SOP on donation management;
    - SOP on safety and security;
    - SOP on facility structure, environment and ventilation;
    - SOP on logistical mobilization;
    - SOP on demobilization;
    - SOP on water supply;
    - SOP on hygiene
    - SOP on sanitation;
    - SOP on environmental cleaning;
    - SOP for healthcare waste management;
    - SOP for vector and pest control;
    - SOP for dead body management;
- SOP on monitoring and reporting to measure the performance (MDS, field visits). SOP on monitoring and reporting can include more information about when exactly the team leader should send report to EMT CC and what is the main function of field visits; in case of latter, the instructions should be made what steps can evaluator make in case there will be deviations;
    - SOP on monitoring
    - SOP on reporting;
    - SOP on ethical standards during gathering and sharing the information;
- SOP on media which should consider the appropriate media and social media tools when communicating with target population of public health issues. In addition, it should include the record about the prioritization of local language when possible in order the messages to be consistent;