

Behavioral Change Strategy for the Effective Use of the Emergency Medical Service System (Part 1)

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Abstract The primary objective of the behavioral change initiative is to delineate usage of ambulance and emergency medical service for urgent emergency cases and the use of other medical services, e.g. outpatient facilities (visiting GPs and nurses, PHC centers and clinics) for non-emergency cases. To facilitate the behavioral change, the measures shall be identified and implemented. This study aims to develop a behavioral change strategy for the effective use of emergency medical service, which will be based on the collected evidence data and define behavioral objectives, key barriers, communication objectives and provide the plan of measures for the implementation and monitoring of the BCS. Behavioral change activities within the EMSP will build upon past achievements in forming awareness aimed at informing the public about EMS in Uzbekistan, its role and importance, at the same time aiming to increase buy-in and personal responsibility of population for responsive usage of EMS and particularly ambulance services. Communication campaigns will also target increasing adoption of public health services usage behaviors among various groups of populations: rural and urban households.

Keywords Emergency medical care, Behavior change, Strategy

1. Introduction

Behavior is the outward manifestation of an individual's internal response to a situation. The response an action or change in action is derived through an individual's decision-making process, which may be automatic or deliberate, and shaped by economic, psychological, or social mechanism. Behavior change activities target or support specific choices and behaviors that are linked to a desired outcome [1].

In order to improve EMS system's delivery and its effectiveness, the improvement of its quality is only one part of the equation. Such improvement shall be accompanied by adequate usage of those services by public, in line with the purpose and nature of emergency medicine.

Certain existing behavior patterns of the population of Uzbekistan, e.g., caused by limited understanding and information about available healthcare channels, lack of respectful and responsible attitude towards medical workers and especially the first-response teams have certain room for improvement, which shall be achieved to ensure more effective utilization of healthcare system resources.

It is understandable, that such common population behaviors, within the larger category of healthcare services

consuming behaviors, do not occur in a vacuum. Rather, individual characteristics, interpersonal dynamics, community factors and the policy environment in which people reside influence them (Fig. 1).

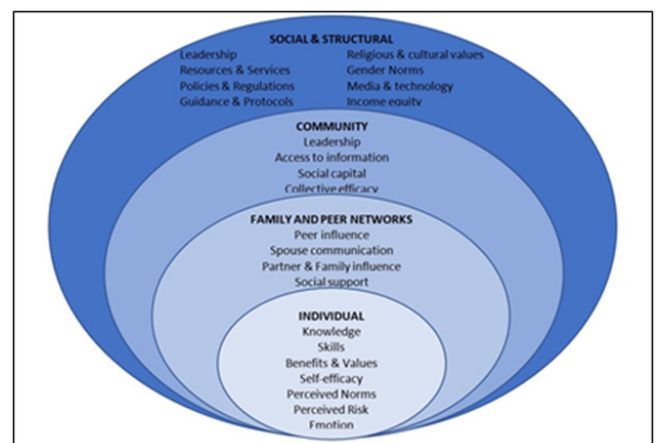


Figure 1. Factors influencing behavior

Communication helps to overcome barriers to behavior change, but communication tools should be carried out not only at the level of personal knowledge, informing individuals about suitable or not suitable behavior, but should be supported by interpersonal communication, community, government, media and communication should be built on social and structural changes.

2. Materials and Methods

There is evidence from past experiences in a number of countries that behavior change interventions can indeed improve the related population behavior. The objective of this behavior change strategy is to define the best suitable approach to address and catalyze the EMS usage behavior changes in Uzbekistan and propose the action plan to implement it.

The first level of behavioral change is often at the institutional level, but the focus here should be on individual's demand for services and factors which facilitate or inhibit service uptake. It is important to point that resources are necessary, but not sufficient for service use [1]. Other mechanisms such as economical, legislative, knowledge, psychological, social, financial, etc. should inhibit service use, directly targeting demand.

For example, in Uzbekistan, people need basic medical and social care (an expressed demand), and subsequently primary healthcare services, general practitioners, nurses on duty, etc. (resources) are provided to satisfy this demand. However, Uzbeks in certain cases are not using them, instead, they are calling an ambulance (an actual behavioral response to situation). As we have seen, the reason for such *shifted* behavior lies in: governmentally (i) supported legislation (free services, no charge or fee for ungrounded calls, no responsibility for false calls); (ii) social norms (no social responsibility, no understanding of misuse of the common good), (iii) lack of operational capacity (no actual triage, dispatch protocols), (iv) available resources are not sufficient or not accessible to the target population, etc.

Correspondently to the reasons listed above, in order to achieve behavior change, the authorities may introduce additional mechanisms supporting available resources, such as:

- (i) legislative EMS law,
- (ii) regulative dispatch protocols which allows to triage calls,
- (iii) informational understanding of ambulance work essentials,
- (iv) social opinion leaders sharing their stories and teaching new behavior,
- (v) personal-emotional appeal to values, someone may need ambulance at this moment more than me,
- (vi) financial payment for ambulance services in case of ungrounded call.

All institutional measures, such as new legislation, regulation, economical or financial measures should be effectively communicated. Changes without comprehensive communication will possibly lead to misinterpretation of the initiatives, negative reactions, resistance, negative outcomes in media, which would lead to the negative evaluation of healthcare system in general. Therefore, when we speak about behavioral change communication, it is first and foremost about building communication, which is based on facts, relevant regulation, legislative and fiscal measures,

service provision and practice. This process and its interrelations are shown in Fig. 2.

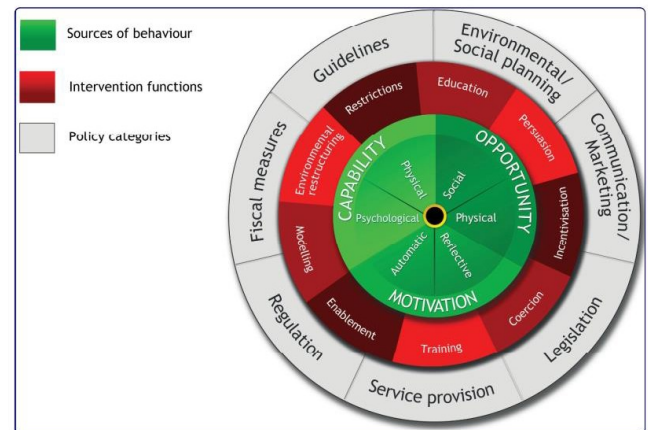


Figure 2. The behavior change wheel [2]

Communication without this base will not be effective or the effect will be short-term and will address only small part of the intended audience. It is imperative that communication campaigns effectively promote positive behaviors and prevent negative behaviors only when the campaigns are paired with local efforts to support the desired behavior change [3]. Intervention measures to change behaviors in the affected group are an area of concern and must be fully supported by both the government and non-governmental organizations [4].

The process of seeking higher efficiency in EMS work and healthcare system in general has already started in Uzbekistan. As it is stated in the Strategy of actions in five priority areas of development of the Republic of Uzbekistan [5], further reform of the healthcare sector should ensure, first of all, the development of primary care, urgent and emergency medical care, through increasing availability and quality of medical and social-medical services to the population, the formation of a healthy lifestyle of the population, strengthening the material and technical base of medical institutions, as one of the priority directions of development of the social sphere.

As practice showed, during the year 2017, when active measures to improve provision of ambulance services were taken (more ambulance cars and better equipment have been procured), a new spike in the number of calls was observed. Higher availability led to higher usage, and as we see it from the data, higher misuse as well.

The current measures, taken by the government, support the objective to expand emergency services further and make them even more accessible to the population of Uzbekistan. However, a corresponding effort shall be made to ensure effective provision of these services, in a targeted manner, i.e., for urgent cases and emergencies, while other callers should be redirected to alternative healthcare services.

Based on the discussions with the EMS workers and analysis of the current legislation, the achieved perception is that the state itself till now has not crystalized the legitimate

cases of EMS usage, specifically ambulance services. This leads to the situation when emergency and primary healthcare services intertwine, and EMS is forced to provide primary healthcare services.

Addressing this issue, as a part of the World Bank Project “Improving Emergency Medical Services”, emergency medical dispatch protocols were developed by an international consultant for Uzbekistan. Ambulance dispatch protocols would allow triaging calls and determining response: urgent dispatch, normal dispatch or ambulance may not be sent, which is at the moment impossible and ambulances have to be sent at all times whenever a call is received. Therefore, it is expected that dispatch protocols would also allow reducing the number of false and ungrounded calls [6].

Notably, the concept for the development of EMS of the Republic of Uzbekistan for the period 2020-2025 [7] has been prepared. It outlines a number of different measures and changes that would help to purposefully improve the EMS. Including the need for legal, regulatory, infrastructural, financial, information technology changes, the introduction of efficiency control and quality of services, will definitely help to address the issue of ineffective use of the ambulance service - 103.

It is understandable that persistent communication should accompany these changes so that they are perceived by workers of the emergency medical service, primary health care and social health care as well as by the population with the least resistance: “Provide wide coverage of the emergency, ambulance and emergency services through information and educational work, including the media” [8].

As a part of the World Bank Project “Improving Emergency Medical Services” a draft law of the EMS system will be prepared: “Improvement of the regulatory and legal framework, including the development and approval of the Law of the Republic of Uzbekistan “On the procedure for providing emergency medical care to citizens of the Republic of Uzbekistan”. This regulatory document determines the volume and types of emergency medical care, determines and secures funding sources, determines and protects the rights of patients and medical personnel” [8].

Another important aspect, which shall be considered in behavior change communication, is the introduction of universal health coverage and compulsory health insurance. There are ongoing discussions and preparatory activities for the pilot project of UHC in one of the regions of Uzbekistan. In many countries of EU, healthcare and ambulance services are tightly connected with compulsory health insurance, people have to be insured, to receive healthcare services without out-of-pocket payment. EMS in emergency and urgent cases would be provided without insurance, but often the patient will be billed later for the provided services.

As we saw from the collected data presented above, high percentage of *home calls* significantly lowers efficiency of ambulance work. Arguably, lack of information, insufficient medical and health knowledge among population leads to this inefficiency in EMS.

The following unsound behavior patterns require correction:

- Abusing EMS services, i.e., calling ambulance on any health issue, regardless if it is urgent or chronic, or even unrelated with health condition at all; requesting hospital EMS service for non-emergency conditions.
- Disrespect in attitude towards EMS staff and inadequate reactions such as expressing dissatisfaction by physically assaulting ambulance personnel.
- Inappropriate behavior of drivers on the roads in respect to ambulance transport.

Following behaviors should be encouraged and promoted:

- Using primary healthcare and social workers as opposite to EMS services in not life - threatening health situations or situations not connected with health issues.
- Respect and appreciation of the first-responders work, in particular medical ambulance services.
- Interest in own health and raising awareness of preventive care.
- Regular health check-ups.
- Healthy lifestyle and nutrition.
- Respectful and responsible driving.

One of the challenges of the situation analysis phase was the lack of detailed statistics or results of the qualitative research on the audience demographics. As it was shown above, *home calls* make up third of all calls or more than 3 million calls for ambulance services per year in the country. Regrettably, there is no available specific statistics about this audience: their health issues, age, gender, income, education, etc. Having in mind, that in some regions, “home calls” make up more than a half of all calls, all these data should be collected and provided by the regions and serve as basis for the specific communication plans for problematic regions.

The World Bank has developed the behavior change frameworks called SaniFOAM. It was successfully applied in the domain of sanitation, seeking to change sanitation and water usage behavior whilst implementing sanitation projects. SaniFOAM emphasizes formative research on the targeted population’s current behaviors and habits. According to the prior WB experience with SaniFOAM, diagnostic work on the facilitators and barriers to obtaining the desired outcome are critical to designing behavior change activities [9].

For more specific communication measures, formative research should be conducted and more specific in-depth information about the audience should be collected:

- What is the target group’s knowledge, attitudes, and beliefs about health?
- What factors affect their health behaviors?
- What are their media practices?
- What access do target groups have to information, services, and other resources?
- Where do they currently stand in the stages of behavior change?
- Are there different groups of people who have similar needs, preferences, and characteristics (segments /

target groups)?

It is suggested to include the questions listed above to the focus group guide.

Having the answers to these questions, it would be feasibly to create very specific, customized messages and materials suiting different audience segment's needs, beliefs, understanding, and information using habits.

For the purposes of this BCS, we define our main audiences as follows:

Primary audience – so called “home callers”, people, who are calling because of their chronic conditions or minor health issues and who do not require urgent medical assistance. Medical help could be delivered at home or local primary health care facility by GP or nurse on duty, e.g., visiting GPs or nurses.

Secondary audiences – people who influence behaviors of primary audience:

- relatives and friends of “home callers”;
- primary health service and EMS providers: general practitioners, doctors, and nurses on duty, dispatchers, paramedics;
- journalists;
- celebrities and public opinion leaders;
- politics & government;
- NGO & professional associations.

Relatives and friends of “home callers”— having in mind huge number of calls received by emergency number 103, the target group of this information campaign should be basically all population of Uzbekistan, not leaving behind the need of educational and preventive programs for children and adults - seeking to increase general health knowledge and awareness of population.

Primary health services providers: general practitioners, doctors and nurses on duty - have direct contact with patients, “home callers” and their relatives. It is perfect audience, to bring communication forward, trying to understand our primary audience and its needs, to spread the basic message and knowledge when a person should address primary health care provider and when emergency medical services should be called.

EMS staff has direct contact with patients, “home callers” and their relatives, it is perfect audience to deliver basic message and knowledge when ambulance should be called.

Journalists – especially important audience in many senses. One of the goals should be to increase their understanding of how EMS and ambulance works, what are the challenges and ongoing reforms are made and why, i.e., investments, partnerships, cooperation, etc. This kind of information should be provided on regular basis. In addition, educational events should be organized. Only when journalists have full basic information, they will be on EMS organizations' side. Only then a journalist will remain potentially objective, confronted by unhappy “home caller” with the question: “Why ambulance wasn't sent to me?”

Public opinion leaders like actors, singers, TV stars, social networks stars, etc. Implementing behavioral change,

especially effective is personal communication, personal example, behavior and opinion of public opinion leaders.

Life and opinion of public leaders is heard better, therefore it would be good to use it for our goals of behavior change communication.

Politicians & government – are of the key importance, especially implementing legislative changes, like EMS work regulation and introduction of compulsory health insurance, responsibility for unfounded calls, implementing motivation system for medical staff etc.

NGO & professional associations – are the partners and supporting organizations to ensure that public is aware that their opinion is important, that government speaks with the mand pays attention to their requests. In some cases, it is easier to introduce changes through NGOs, which has established trust and direct contact with certain population groups. If we discuss with patient organizations about issues problems in EMS, both parties could have positive outcome: EMS authorities would understand expectations better and prepare its arguments, communication messages and properly introduce changes; patient organizations would receive attention and possibility to participate in change process, enabling them to transfer the message to their audience and introduce these changes. This way in many cases is more effective than news coming out from government.

Before planning concrete actions and communication activities, it would be useful to engage community and above-mentioned audiences into discussion, ensure their participation. Such approach will facilitate and help:

- to find out and respond to the audience's expressed needs,
- to involve audience members and other key stakeholders in the analysis of their own concerns, what would help to develop program which responds to the community and EMS development needs in the best way,
- to introduce and discuss upcoming changes and to get initial feedback,
- educate ambassadors of planned behavioral change program.

It is understandable, that direct involvement of population groups requires additional resources, a lot of work and time, but at the end of the day it gives more sustainable results.

In addition to traditional communication channels, such as distribution of printed materials, TV, radio, and newspapers - social media should be actively used. Another specific to Uzbekistan channel is communication through Mahalla meetings. Social institution of Mahalla (*neighborhood*) has long historical and cultural roots in Uzbekistan. A lot of social behavior norms are influenced and in some cases are controlled by Mahalla gatherings. Therefore, this communication channel shall be utilized in addition to the more traditional media channels.

Within educational work, kindergartens, schools, colleges and universities should be involved. It is important to form

behavior and influence its development in the youngest possible age. Considering that education in Uzbekistan is mostly public, it should be feasible to get access and deliver BCC messages through them.

More specific data about media usage in Uzbekistan was not available by the time of this assignment, as well as there is no information about audience media usage habits. Therefore, within this strategy, the communication channels will be proposed based on recommendations and best-practice of behavioral change communication in other countries with adjustment to the actual usage of internet and mobile phones in households of Uzbekistan.

This strategy is based on currently available statistics, the RRCEM's vision and understanding of the problem, the theory of behavior change, recommendations, best practices and international experience in solving similar challenges. However, it was not precisely known, how EMS workers and residents who call 103, and in particular the originators of the "home calls", see the problem.

One of the most important limiting factors of the strategy was the lack of detailed statistics, such as - morbidities of the "home callers". There have been no qualitative and quantitative surveys of specific communities or general public performed aiming to research the reasons why and which people groups turn to an ambulance rather than other designated primary healthcare services.

The successful implementation of this strategy also depends to a large extent on government support and the implementation of comprehensive measures in the field of EMS, such as introduction of dispatch protocols, introduction of fines for ungrounded calls, and others.

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