ASSESSMENT OF SUICIDE PREVENTATIVE ACTIVITIES IN KAZAKHSTAN: KYZYLORDA AND EAST KAZAKHSTAN REGIONS

PREPARED FOR THE UNITED NATIONS CHILDREN'S FUND (UNICEF) IN KAZAKHSTAN BY:

Camilla Wasserman,
Researcher in Anthropology and Public Health, Department of Child and Adolescent Psychiatry, New York State Psychiatric Institute, Columbia University, New York, USA

Tony Durkee,
Researcher in Public Health, National Centre for Suicide Research and Prevention of Mental Ill-Health (NASP), Karolinska Institutet, Stockholm, Sweden

UNDER THE SUPERVISION OF:

Danuta Wasserman, Professor of Psychiatry and Suicidology, Head of the National prevention of Suicide and Mental Ill-health (NASP) at Karolinska Institute, Stockholm, Sweden, Director of WHO Collaborating Centre for Research, Methods Development and Training in Suicide Prevention and President of the European Psychiatric Association (EPA)

2014
1. Executive summary

Kazakhstan is among the countries with the highest suicide rate in the world according to the World Health Organization (WHO). In particular, between 1981 and 2008, while many other countries showed a decrease in suicide rates, in Kazakhstan suicides increased from 22.5 to 25.6/100,000. This increase was particularly important in the male population. The majority of deaths from suicide were young people between 18 to 29 years old, accounting for 80% of the total number of suicides. In fact, suicide is the leading cause of death from external causes of Kazakhstan adolescents. Mortality among children and teenagers in rural areas tends to be higher than those in urban areas.

Suicide is a complex phenomenon, thus, the prevention of it needs to be tailored accordingly. Suicide is shaped by a number of interacting cultural, social, psychological, biological, and situational factors with mental health problems acting as the largest risk factor. Young people are reluctant to look for professional help because of the stigma of mental illness and, for similar reasons, may also be afraid to address the issues of mental pain to their peers. In an effort to make suicide preventive strategies effective for adolescents as well as culturally appropriate, it is important to consider local attitudes toward suicide. Furthermore, it is imperative to take into account the feelings of pain and grief experienced by any community, family or individual that has encountered a suicide. Mental health is inseparable from physical health and both are intrinsically linked to human rights. Poor mental health can affect the wider health and development of children and adolescents. However, the research on suicidal behaviour and its risk factors is growing and in several countries with high suicide rates effective prevention programs have successfully reduced the incidence of suicide.

The Government of Kazakhstan has increasingly recognized suicide as a serious public health issue especially affecting the young population of the country. In close collaboration with the Ministry of Health\(^1\), UNICEF provided financial and technical support for the first comprehensive study on suicide in Kazakhstan, namely the “Study on prevalence, underlying causes, risk and protective factors in respect to suicides and attempted suicides in Kazakhstan” (from here on referred to as the Suicide study). An international research team, in close collaboration with UNICEF, the Ministry of Health and National Mental Health Centre, local authorities and civil society organizations, organized three subprojects as follows: 1) Development of a system for case reporting and analysis of completed suicides based on the psychological autopsy in 5 regions of Kazakhstan; 2) Establishment of an epidemiological observatory on suicide attempts in East Kazakhstan Region; 3) Evaluation of prevalence and risk factors associated with suicidal ideation and attempted suicide in East Kazakhstan Region.

This report describes and evaluates current suicide preventative activities in Kyzylorda and East Kazakhstan Regions, to provide recommendations for enabling further programming of suicide preventative activities in Kazakhstan by UNICEF and its national and local partners. Suicide data and recent suicide preventive work in Kazakhstan was reviewed, and site visits were made in Kyzylorda and East Kazakhstan Regions, visiting institutions and professionals working with adolescents and youth performing informal conversations and short quality control questionnaires with them.

The Suicide study findings point to the similarities between the children and adolescents in Kazakhstan and the rest of the world. In particular the conclusions of the study underline that suicidal behaviour seems to be linked to a poor state of health which often goes together with the adoption of unhealthy lifestyles, especially alcohol misuse and drug abuse. The study

\(^1\) Currently – the Ministry of Health and Social Development of the Republic of Kazakhstan
recommends focus on the development of a national suicide preventive plan, along with specialised mental health services and a national coordinating centre. Further recommendations based on the study included an observatory for suicidal behaviours, performing preventive actions for adolescents specifically screening and raising awareness and training of mental health professionals. The importance of careful translation and cultural adaptation of all materials was emphasized and a theme of much importance was that stigma may be preventing persons from seeking help.

Risk factors of suicide in Kazakhstan are not much different from those in the rest of the world; however, they must be seen in the specific cultural context. The WHO has recently published culturally sensitive strategies for suicide prevention across the globe and we recommend that these guidelines be followed also in Kazakhstan (WHO World Suicide Report: “Preventing Suicide – A Global Imperative” 2014). The WHO underscores that effective preventive interventions should not just be focused on single risk factors but rather be part of a more comprehensive and long-term national preventive plan. Effective suicide prevention strategies should work on the three different levels of universal, selective and indicated prevention.

Kyzylorda appears to have had great success with the suicide preventative programme, and it is clear that their experience is related to the support of the local government office, and the close collaboration of the school education sectors (within which psychologists work) with the healthcare sector (including regional Mental Health Centre). This is a very important finding that we have seen in many other educational programmes across the world, that people employed in different sectors and working with different educational backgrounds, but also different theoretical frameworks, can learn from and strengthen each other in such work.

Acting on suicide prevention in Kazakhstan would mean enhancing the awareness of mental health in general and increase treatment possibilities. This implies that specialised health and mental health services should be provided all over the country. Suicidal behaviours can only be reduced if efforts are coordinated and both a public health and a health care perspective are adopted. Effective preventive interventions should not just be focused on single risk factors but rather be part of a comprehensive and long-term national preventive plan. It appears that members of Kazakh society, including psychiatrists, psychologists, school personnel, police, first responders, medical personnel and members of the public, including adolescents, are in need of more information about mental health in general and suicide in specific. An effective action to reduce suicide rates in Kazakhstan would require the synergistic effects of a range of preventative programmes. It is likely that utilizing only one approach would limit the effectiveness of the overall effect.

The following preventative programmes are recommended for adolescents in Kazakhstan: 1) An awareness increasing programme that is of the universal approach targeting the general population directly, in this case adolescents. An awareness programme would contribute to mental health promotion and limit the emergence of new cases of suicidality. Awareness programmes have shown effectiveness in reducing incident suicide attempts and severe suicide ideation/plans by nearly 50% in comparison with a control group (Wasserman et al. 2014 Lancet). 2) The improvement of identification and treatment is one of the key strategies in suicide prevention. Gatekeeper training, including teachers and other school staff, such as school psychologists and nurses, members of the public, as well as health workers and mental health professionals, would allow for adolescents currently at risk to be identified and referred to healthcare services that are able to provide adequate treatment. 3) Specific interventions for high-risk groups, such as those who misuse alcohol and juvenile offenders. These interventions should include screening for mental health problems among these populations and be
accompanied by corresponding capacity building activities for health workers, to ensure their preparedness. 4) Actions to increase accessibility to mental health care should be taken alongside the collaboration between different sectors and professions.

In conclusion, an integrated approach to suicide prevention is needed in Kazakhstan: a universal approach to increase awareness amongst children and adolescents; a selective approach looking at high risk-groups, which includes the training of gatekeepers such as psychologists and social workers and targeted screening programs; and an indicated approach in which both psychiatrists from the healthcare sector and psychologists from the education/health sector collaborate. For successful suicide prevention all sectors have to work together on a national and regional level.

2. Global and local implications of suicide – Magnitude of the problem

2.1 Suicide in young adults – a public health problem

According to the World Health Organization (WHO), an estimated 804,000 persons worldwide committed suicide in 2012. Suicide is the second leading cause of premature death in 15–29 year olds. An estimated 76% of all suicides occur in low- and middle-income countries. Yet, given the stigma surrounding suicide, it is very difficult to have reliable data on its prevalence. In fact, the numbers are much higher than the statistics show, since many suicides are hidden behind other causes of death, such as traffic accidents or accidental poisoning. Religious and other beliefs, attitudes toward suicide and local tradition affect how death certificates are issued, as such resulting in misclassifications of suicide.

Every completed suicide has a devastating effect, but when a young life is cut short, the shock is oftentimes even greater. In the transition from childhood to adulthood, adolescents make
lifestyle choices and initiate patterns of behaviour that affect both their current and future well-being and health. Many adverse health behaviours emerge in adolescence and continue into adulthood, with consequences for negative and sometimes long-lasting outcomes on their health and morbidity. Given the importance of this transitional period, it is essential to systematically assess the mental health and well-being of adolescents and young adults, and to implement and evaluate interventions for at-risk individuals.

2.2 Suicide in Kazakhstan

Kazakhstan is among the countries with the highest suicide rate in the world according to the WHO. In particular, between 1981 and 2008, while many other countries showed a decrease in suicide rates, in Kazakhstan suicides increased from 22.5 to 25.6/100,000. This increase was particularly important in the male population. In 2010, the total number of suicides in Kazakhstan amounted to 3,617 cases or about 20% of the total number of deaths from external causes. The majority of deaths from suicide were young people between 18 to 29 years old, and this group accounted for 80% of the total number of suicides. According to the data on monitoring of the status of children and young people in CIS/CEE countries, Kazakhstan is among the most affected countries by mortality in the adolescent (15-19) and young adult (20-24) population.

In adolescents, suicide is the leading cause of death from external causes, although it should be noted there are differences between genders and across urban and rural areas as well as between different regions. When looking at differences between rural and urban areas the data show that suicide mortality among children and teenagers in rural areas tends to be higher than in urban areas. In 2010, the suicide death rate among rural and urban men/boys was respectively 26.5 and 19.5 per 100,000 of the relevant population, and among women/girls it was respectively of 8.8 and 5.5 per 100,000 of the relevant population. A number of differences can also be observed when considering regional distribution. Kostanay, East Kazakhstan, Akmola, West Kazakhstan, Pavlodar and Karagandy Regions reported suicide rates higher than the national one. Almaty, Zhambyl, North Kazakhstan and Aktobe Regions were closer to the national rate. The lowest rates were found in the Kyzylorda Region and Almaty city.

2.3 Suicide prevention

Suicide is a complex phenomenon, thus, the prevention of it needs to be tailored accordingly. Suicide is shaped by a number of interacting cultural, social, psychological, biological, and situational factors with mental health problems acting as the largest risk factor. A total of 90% of all suicides are completed by persons suffering from mental health problems, in youth such problems are often undetected. The research on suicidal behaviour and its risk factors is growing and in several countries with high suicide rates effective prevention programmes have successfully reduced the incidence of suicide. Despite this, currently it is very difficult to predict if and when suicidal behaviour will occur. Indeed, suicide is a relatively rare event and the risk factors are more useful to identify groups of people at risk than specific individuals. Furthermore, none of the identified risk factors can be used alone to predict suicide.

Effective suicide prevention strategies should work on three different levels: primary (universal), secondary (selective) and tertiary (indicated) prevention. The primary prevention acts at a universal level, targeting and affecting everyone in a defined population regardless of the risk of suicide e.g. in schools, within the community. Universal interventions in suicide prevention predominantly focus on increasing awareness about this issue and the potential for receiving help. Selective prevention is addressed to subgroups at particular risk for suicide. This level of

---

2 UNICEF, Transmonee database, 2012
prevention needs the development of specific interventions for specific sub groups that often display risk factors that can place them at greater risk of suicidal behaviours, e.g. refugees, indigenous people, prisoners, members of the LGBTQ (lesbian, gay, bi-sexual, transgender and queer) community. For example, young people could be reached through school-based interventions, while people with mental health problems could take advantage of an improvement in mental health services and treatments. Finally, indicated interventions are targeted at individuals who are displaying signs of suicidal behaviours for example: suicidal plans, suicidal attempts e.g. in hospitals, or among general practitioners. This kind of prevention implies the construction of a network around the person able to ensure the continuation and maintenance of care.

2.4 Suicide prevention for adolescents

Stigma, developmental changes and peer pressure lead to adolescents being particularly in need of specifically tailored preventive strategies (Sartorius 2005, Hawton 2006). Oftentimes young people are reluctant to look for professional help because of the stigma of mental illness and, for similar reasons, they may also be afraid to address the issues of mental pain to their peers. Across the world, healthcare systems are often not adequate, or there are none or too few mental health professionals available if the young people do look for help and are in need of it. It is important to consider these factors when creating suicide prevention programmes for youth.

Prevention should occur on a national societal and individual level (universal, selective and indicated approaches), with the most effective strategies being a combination of efforts (Wasserman 2009). Suicide prevention programmes both at national and regional levels is important in laying the groundwork for mental health promotion reforms in countries with no or little prior data and few preventative programmes. It is important to raise the general awareness about mental health and suicide to facilitate communication about mental health concerns. When addressing sensitive issues such as mental health, risky life-styles and suicide, it is important not only to be cautious and sensitive to cultural differences, but also personal histories. Awareness programmes for adolescents that are both effective and culturally adaptable need to be carefully developed, considering attitudes towards suicide and mental health care in general. Moreover, suicidal behaviours vary across countries, by gender and across the lifespan, with many other factors influencing these behaviours, such as a variety of cultural expressions, stigma, access to lethal means of suicide, lack of a medical/mental healthcare infrastructure; all of them usually linked. Finally, youth friendly and culturally adapted programmes play an important role in suicide prevention through provision of counselling and referral of young people in need to mental health services.

3. Objectives of this report

I. To describe and assess current suicide preventative activities in Kyzylorda and East Kazakhstan Regions.

II. To present results based on the assessment of suicide preventative activities in the aforementioned regions.

III. To provide recommendations for enabling further programming of suicide preventative activities in Kazakhstan by UNICEF and its national and local partners.

4. Suicide preventative work in Kazakhstan

The Government of Kazakhstan has increasingly recognized suicide as a serious public health issue especially affecting the young population of the country. In close collaboration with the
Ministry of Health of the Republic of Kazakhstan UNICEF provided financial and technical support for the following study: “Study on prevalence, underlying causes, risk and protective factors in respect to suicides and attempted suicides in Kazakhstan” (Sarchiapone 2014).

The study aimed to analyse the prevalence, underlying causes, risk and protective factors of suicidal behaviour in Kazakhstan. Suicidal behaviour was investigated in all its dimensions including suicidal ideation, suicide attempts and completed suicide, in order to identify the socio-demographic and psychopathological variables associated with these behaviours as well as the presence of risk and protective factors on which to address preventive interventions.

An international research team was established and in close collaboration with UNICEF, the Ministry of Health and the National Mental Health Centre, local authorities and civil society organizations a local research team was formed. This team was involved in finalizing the research methodology and tools, identifying the catchment area and the local resources, performing all the activities included in each subproject (e.g., contacting families and schools, performing interviews, administering questionnaires, etc.). The three subprojects were as follows: 1) Development of a system for case reporting and analysis of completed suicides based on the psychological autopsy in 4-5 regions of Kazakhstan; 2) Establishment of an epidemiological observatory on suicide attempts in East Kazakhstan Region and; 3) Evaluation of prevalence and risk factors associated with suicidal ideation and attempted suicide in East Kazakhstan Region. Details about the results can be found in the UNICEF report (http://www.unicef.kz/en/news/item/652).

5. Methodology

In order to reach the afore-mentioned objectives in August-September 2014 desk review of documents regarding national suicide data and recent suicide preventative work in Kazakhstan was made. In addition to the desk review, site visits in Kyzylorda and East Kazakhstan were made (between 10-17 August 2014), visiting institutions and professionals working with youth during which information in the form of informal conversations and a short quality control questionnaire were made with local professionals. Below the methods are described in detail.

Desk review

Desk review of national suicide data and current suicide preventative activities in the Kyzylorda and East Kazakhstan Regions were performed using documents received from the UNICEF Programme Officer of Kazakhstan (Aigul Kadirova). Documents and reports were translated into English and subsequently reviewed by external experts at Karolinska Institutet, Stockholm, Sweden (Prof Danuta Wasserman) and Columbia University, New York, USA (Researcher in Anthropology and Public Health, Camilla Wasserman).

Site visits and informal conversations with mental health professionals

Site visits to the Kyzylorda and East Kazakhstan Regions were carried out by an external research consultant (Tony Durkee) from the National Centre for Suicide Research and Prevention of Mental Ill-Health (NASP), Karolinska Institutet, Stockholm, Sweden and the UNICEF Programme Officer of Kazakhstan (Aigul Kadirova) and Ministry of Health representative (Laura Orunkhanova).

In both regions, visits were made at regional mental health centres, local hospitals, clinics and schools. Informal conversations were held with educational psychologists, medical psychologists and psychiatrists. Ten sessions altogether were conducted in the aforementioned regions, with the majority of them taking place in Kyzylorda with 5-20 professionals participating in each site. The sessions were recorded and notes were taken in order to identify specific strengths,
limitations or existing gaps in the suicide preventative activities from the perspective of mental health professionals.

The recordings have been shared with an external expert with experience in qualitative analysis, anthropologist Camilla Wasserman, Columbia University, New York, USA. Due to the limited amount of participants and their non-representability of all mental health workers in the region, it was decided that the focus should be on the experiences, attitudes and opinions of the participants in relation to suicide preventative activities they had participated in. In order to identify material relating to these topics, words and sentences were noted and grouped together when listening to the recordings. Subsequently the most meaningful themes were identified and accounted for in the next section.

**Quality control questionnaire**

Short quality control questionnaires were administered to the educational psychologists, medical psychologists and psychiatrists in East Kazakhstan and Kyzylorda that participated in the informal discussions. The quality control questionnaires comprised questions assessing the participants’ impression of the process and effectiveness of the suicide preventative activities performed in their respective region and sector. Moreover, data concerning their perceptions regarding the motivation of different actors (i.e., school headmasters, educational and medical psychologists and psychiatrists) involved in suicide preventative activities in their region, their knowledge and preparedness to manage suicidal cases, and their overall perception of suicide preventative activities were collected. The quality control questionnaires were based on questionnaires used in the European Union 7th Framework project “Saving and Empowering Young Lives in Europe (SEYLE)” (Wasserman D. et al. 2010. *BMC Pub Health*); however, they were adapted to fit the needs of this initiative in Kazakhstan.

A database was developed using data extracted from the quality control questionnaires administered to educational psychologists, medical psychologists and psychiatrists during the focus group sessions. Descriptive statistics were performed to quantify the perceptions, knowledge, beliefs and opinions of respondents regarding suicide preventative activities in their region and sector. IBM SPSS Statistics 22.0 was used to carry out analyses.

**6. Results**

**6.1 Desk review of suicide preventative activities in Kyzylorda and East Kazakhstan**

**6.1.1 Suicide study – objectives and methods**

The description is based on available data from East Kazakhstan and Kyzylorda, the Suicide study report, the methodology and materials of the UNICEF project in the East Kazakhstan. The study that started in March 2012 had as aim to analyse prevalence, underlying causes, risk and protective factors of suicidal behaviour in Kazakhstan. Suicidal behaviour was investigated, including suicidal ideation, suicide attempts and completed suicide, in order to identify the socio-demographic and psychopathological variables associated with these behaviours in the regions as well as the presence of risk and protective factors on which to address preventive interventions.

This ambitious study included a range of methods in three sub-projects to better understand suicidal behaviour. Psychological autopsy was made of 100 suicide cases and 100 cases of traffic death as control group of children and young adults aged 12-29 in 5 regions in Kazakhstan. The monitoring of suicide attempts and in-depth interviews of children and young adult suicide
attemptees was performed in East Kazakhstan. Finally, in-depth interviews of around 3000 adolescents in schools in East Kazakhstan were made.

An international research team was headed by Professor Marco Sarchiapone who personally trained local researchers to perform the study across Kazakhstan. The training is delineated in a carefully written procedures manual, and training for each of the three sub-projects included epidemiological and scientific introductions to mental health and suicide and a description of the entire project. Practical suggestions and advice were given as well as a presentation of the assessment tools and data entry procedures. The training sessions included discussions, role-plays and practical exercises, which are all great tools to ensure that participants are involved actively and properly digest and understand new and complex topics and new study methods.

The general objectives were as follows: 1) Identifying underlying causes, protective and risk factors of suicidal behaviour that may act in the short or long term, also considering the socio-cultural context of the country; 2) Evaluate the prevalence of suicidal ideation, attempted suicide, completed suicide and creating an epidemiological observatory of suicidal behaviour; 3) Provide recommendations for mechanisms for identification, registration and referral of attempted and completed suicide cases; 4) Analyse the services, assistance and actions provided to suicidal people and their family; 5) Recommend realistic possible short- medium and long-term interventions and policies to decrease suicidal behaviour incidence, with specific reference to prevention programmes and communication strategies to be implemented with support of UNICEF in Kazakhstan; 6) Develop information material and guidance for clinicians, educational staff and policy makers; 7) Disseminate results and findings among clinicians, educational staff and policy makers.

6.1.2 Suicide study – adherence to protocol and results

The above stated sub-projects were carried out to completion. 212 psychological autopsy interviews were made, data was collected on 34 suicide attempt cases and 2,970 questionnaires were administered to high school pupils.

The analysis indicates how big of a problem suicidal behaviours of youth poses to Kazakhstan. A high percentage of attempted suicides was detected among high school pupils as well as, quite unexpectedly, the control cases in the autopsy study. Almost half the high school pupils were considered at risk for suicide and high rates of depression and anxiety, linked to suicidal behaviour, were found. Other risk-taking behaviours, such as alcohol misuse, were also widespread and family histories of mental health problems and/or suicidal behaviours were quite common. For more information on risk factors, life events and mental health problems, please refer to the study report from UNICEF.

6.1.3 Suicide study – obstacles and recommendations

The study findings point to the similarities between the children and adolescents in Kazakhstan and the rest of the world. It appears that the risk factors are similar, but the findings also indicate that many of these risk factors co-exist thus rendering the problem for even more substantial. In particular the conclusions of the study underline that suicidal behaviour seems to be linked to a poor state of health which often goes together with the adoption of unhealthy lifestyles, especially alcohol and drug misuse/abuse. More than half of the suicide cases had a problem with substance use, especially of alcohol. 44.9% of the high risk pupils reported she/he was really drunk at least one time in her/his life and 21.4% used drugs at least once.

It is recommended based on the study findings that suicide prevention focus on reducing risk factors for suicide through a comprehensive and long-term national preventive plan, as is also recommended by the WHO World Suicide Report: “Preventing Suicide. A Global Imperative”
Specialised mental health services are needed across the country and coordinated efforts from both a public health and health care perspective are needed to reduce suicidal behaviours in Kazakhstan. An appeal for a national suicide prevention plan is made. A national coordinating centre including qualified professionals in the field of suicide research and practice should develop such a plan.

The inter-sector collaboration efforts that were developed for the study to ensure that adolescents with mental health problems and suicidal behaviours were helped quickly worked very well in Kyzylorda. However, in East Kazakhstan they worked only on the level of schools since the mental health services were not prepared to be part of the referral system. The reluctance of psychiatric services and psychiatrists, to accept suicidal behaviour as a public health and mental health issue is a key future issue to overcome. This is true for both regions; while in Kyzylorda Region this was to a great extent overcome due to the leadership and unambiguous decision-making by the Deputy Governor who was able to unite all sectors and use prior research, including findings from the UNICEF study in East Kazakhstan to promote suicide preventative work in the region.

Hence it is of utmost important that a coordinating centre is in charge of ensuring that the different sectors and services across Kazakhstan effectively communicate and collaborate. The authorities should decide to make suicide prevention a priority and provide the management structure on a national, regional (oblast) and local level. Regional suicide preventative plans need to be endorsed by the local governor’s office to ensure their success, but also by the leaders in each organisation involved (like schools, working places for healthcare professionals etc.).

6.2 Site visits and informal conversations with mental health professionals

Below follows analysis of the qualitative data collected for this report. For the purpose of this report we have chosen to focus on the participants’ experiences during the Suicide study and suicide prevention activities. The data is presented here by region and delineates the most important themes that arose during the site visits and focus groups.

As stated in the methodology section, the informal conversations with mental health workers are not representable for all psychologists and psychiatrists working in the region. However, this type of conversation is a good way to better understand the experiences, attitudes and opinions of those working with suicide prevention.

6.2.1 Kyzylorda Region

In Kyzylorda Region, strong support for implementing suicide preventative activities at the regional level was shown. Based on the initiative of the regional leadership, the evidence-based materials from the UNICEF Suicide study in East Kazakhstan province were implemented in Kyzylorda Region. Officials are motivated and taking initiative for suicide prevention. Suicide prevention strategies that have been proven to work across the world are here utilised. These include promoting awareness of suicide prevention and providing education on suicide prevention.

During the informal conversations, several themes were discussed in order to identify critical points that should be addressed to boost the effectiveness of local suicide preventive programmes. Below follow a synthesis of some of the more important points:

*Parental involvement and stigma:* consent and active participation of parents is a crucial factor in designing preventive activities for children. This is an issue worldwide and, in Kazakhstan as well. Stigma associated with mental health and suicide is closely correlated with reluctance, by society and more specifically parents to support suicide preventive activities. It is important to
perform destigmatizing actions by raising awareness and knowledge about mental health of all stakeholders involved. Reducing stigma and changing attitudes towards suicide is essential to promote help-seeking behaviour and provide an opportunity to get treated for those in need. Actions to reduce stigma should not target only parents but also other family members, school staff and the healthcare system.

*Readiness and competence of health care personnel:* availability of competent health and mental health professionals was considered a necessity. Efforts should be made to improve the image of suicide among those working in the health sector.

*Training of school personnel:* all school personnel would benefit from additional training in suicide prevention. As key educators as well as gatekeepers for the adolescent population, it was emphasised that their knowledge and skills to identify and support adolescent at risk for suicide is of prime importance and needs to be boosted. Specifically headmasters should be introduced to and trained in awareness raising activities, since they have a key role in facilitating school-based preventive activities.

*Continuity of care:* a balanced effort of all actors involved in suicide preventive activities is required. The collaborative efforts and aims of health personnel working with the school system and school health system need to be consistent. This could be promoted, for example, by brief shared training sessions. Common protocols and educational seminars about how to diagnose, manage and treat suicidal adolescents should be developed.

### 6.2.2 East Kazakhstan Region

The programme can be considered a success. Participants learned new information about suicide and suicide prevention and proactively used this information to implement suicide preventive activities. They were able to identify different risk groups and refer them to the healthcare sector. They increased awareness about mental health among adolescents.

Discussions touched on themes similar to the Kyzylorda Region. Efforts should be made to increase parental involvement and general destigmatization actions need to be prioritised. Training should target all actors involved, including school staff and health workers.

### 6.2.3 Cultural adaptation and stigma

The importance of careful translation and cultural adaptation of all materials was emphasised in both regions. A theme of much importance was that of stigma against mental illness and suicide in society. It was agreed that stigma may prevent persons from seeking help. Moreover, it was mentioned that school psychologists were not trained in how to identify suicidal tendencies in adolescents. Some of the participating psychiatrists considered suicide is to be a social issue and not a mental health problem.

### 6.3 Quality control questionnaire

Among the 73 quality control questionnaires administered, 57 (78%) were completed without missing data and were used for our analysis (45 in Kyzylorda and 12 in East Kazakhstan). Sampling weights were applied to the analysis in order to adjust for the disproportion of cases between regions. When stratified by profession, there were 13 educational psychologists (22.8%), 26 medical psychologists (45.6%) and 18 psychiatrists (31.6%). Here follows some of the most interesting results from the quality control questionnaires.

*Motivation to perform suicide preventive activities:* There was a high degree of motivation among participating educational psychologists to perform suicide preventative activities, higher in Kyzylorda Region (93%) compared to East Kazakhstan Region (83%). Motivation of medical
psychologists and psychiatrists was also significantly higher in Kyzylorda (93% and 91%) compared to East Kazakhstan (50% and 41%), respectively.

**Intervention process:** In both regions, 94.2% of participants reported that the intervention during the Suicide study (East Kazakhstan) and suicide prevention (Kyzylorda Region) went well, while only 5.8% reported that the intervention process should be improved.

**Accessibility of suicide preventive activities:** In Kyzylorda Region, the majority of participants (93%) reported that suicide preventive activities in the region were accessible. In East Kazakhstan Region the numbers were a bit lower, with 75% of participants reporting that the suicide preventive intervention was accessible. Of course, it is not entirely clear if this relates to the time of the active suicide preventive intervention, as well as after its completion. When stratified by profession, 100% of educational psychologists and 93% of medical psychologists reported that the suicide preventive interventions were accessible, while 65% of psychiatrists reported interventions were accessible.

![Importance level for performing suicide preventive interventions](chart)

**Importance level for performing suicide preventive interventions:** Among subjects, the most important obstacles for implementing suicide preventive activities was gaining governmental support at the national level (93%) followed by educational materials (92%), education and training (89%), support from the regional government (88%), adaptation of materials to local conditions (88%), standardized testing (87%) and a protocol for dealing with suicidal cases (82%). When stratified by region, the most important issue for performing suicide preventive activities in East Kazakhstan Region was support at the national level (100%), while in Kyzylorda it was education and training (93%).

**Preparedness for managing suicidal cases:** When assessing participants’ preparedness for managing suicidal cases, results showed that 88% of respondents thought they were well prepared to ask adolescents appropriate questions about suicide and to make appropriate referrals, while 85% reported to be well prepared to persuade adolescents to seek help. A total of 84% of respondents reported to be well prepared to respond to disclosures of suicidal thoughts, 79% were well
prepared to identify suicidal indicators and 76% were well prepared to elicit a comment to not attempt suicide.

When stratified by profession and region, 14% of medical psychologists in Kyrgyz Region and 20% in East Kazakhstan Region reported that they were not prepared to ask questions about suicide, respond to disclosures of suicidal thoughts, or identify suicidal indicators based on adolescent history/behaviour. A total of 37% of educational psychologists in Kyrgyz Region and 20% in East Kazakhstan Region reported that they were not prepared to elicit a comment to adolescents urging them not to attempt suicide. A total of 50% of psychiatrists in East Kazakhstan reported that they were not prepared to persuade an adolescent to seek help for their suicidal tendencies.

**Knowledge for managing suicidal cases:** When assessing the participants’ own perception of their ability and knowledge for managing suicidal cases, results showed relatively high rates in both regions. Participants feel that they have good knowledge in the following areas: appropriately reporting suicidal ideation and attempts (91%), where and how to report suicide ideation or attempts (82%), recognising signs or symptoms of suicide ideation or attempts (82%), how to identify/determine suicidal ideation and behaviours (82%), and knowledge about the relationship between suicide and social issues/problems (81%). Only 58% of respondents reported that they knew their concrete role in detecting suicidal ideation.

**Level of knowledge on suicide preventive activities:** When stratified by region, the participants expressed having a higher level of knowledge concerning facts on suicide prevention in East Kazakhstan Region, while Kyrgyz Region had higher knowledge in warning signs of suicide, information about local opportunities to provide help with suicide and related conditions, and level of understanding about suicide and suicide prevention. Among the whole sample, 24.6% reported that they do not think that they have adequate knowledge, resources and opportunities for identifying, treating and monitoring suicidal adolescents, and many of them reported they needed more help, education and training regarding suicide prevention.

### 7. Discussion

Due to the high suicide rates in Kazakhstan, the Ministry of Health and UNICEF decided to take action by funding a major project for Suicide Prevention, which was performed in 2012-2013 in the five most affected regions of Kazakhstan. The project included a component on analysing suicidal behaviour and other psychological indicators on a sample of approximately 3000 adolescents in East Kazakhstan region. The study provided valuable epidemiological information and provided a number of recommendations. In particular the recommendations included the establishment of coordination centres for suicide prevention, development of a national suicide prevention plan and a national mental health plan, establishment of an observatory for suicidal behaviours, performing preventive actions for adolescents (specifically screening and raising awareness) and training of mental health professionals.

When compiling the findings from the Suicide study, UNICEF documentation, our site visits, the focus groups as well as the quality control questionnaire a few issues came to the surface. It appears that risk factors of suicide in Kazakhstan do not seem to be different from other regions of the world however, they must be seen in their specific cultural context and hence preventative efforts here should follow according to guidelines followed elsewhere (WHO World Suicide Report: “Preventing Suicide. A Global Imperative” 2014). Effective preventive interventions should not just be focused on single risk factors but rather be part of a comprehensive and long-term national preventive plan. It appears that unhealthy lifestyles and particularly alcohol misuse are related to suicide in Kazakhstan. It is well-known from studies performed in other countries that the short and long-term effects of alcohol consumption increase suicide risk and should
therefore be addressed for successful suicide prevention. The acute suicide risk associated with alcohol use may effectively be reduced by increasing community awareness of the impact of harmful use of alcohol abuse, either through general media campaigns, school health promotion activities or targeted information to vulnerable individuals as well as by the restriction of access to alcohol.

It is also clear from the Suicide study that members of society, including psychiatrists, psychologists, school personnel, police, first responders, medical personnel and members of the public, including adolescents, are in need of more information about mental health in general and suicide in specific. By informing the public and encouraging a general awareness of mental health problems including suicide, an increased alertness and responsiveness to suicidal individuals will follow (Hoven et al. 2009). In an effort to make suicide preventive strategies effective and culturally appropriate, it is important to consider local attitudes toward suicide, and how to target suicide prevention and mental health interventions. Furthermore, it is imperative to take into account the feelings of pain and grief experienced by any community, family or individual that has encountered a suicide. Mental health is inseparable from physical health and both are intrinsically linked to human rights. Poor mental health can affect the wider health and development of children and adolescents. In a report about the prevention of mental disorders, the WHO draws attention to the stigma, discrimination and human rights violations that individuals and affected families suffer. It is important to be aware that acting on suicide prevention means enhancing the demand for treatment. This implies that specialised health and mental health services should be provided all over the country. Suicidal behaviours can only be reduced if efforts are coordinated and both public health and a health care perspective are adopted.

7.1 The case of East Kazakhstan region - the first comprehensive study on suicide in Kazakhstan

The Suicide study on prevalence, underlying causes, risk and protective causes was conducted in its entirety in East Kazakhstan province. All three subprojects were conducted and since this was the first study of this kind in Kazakhstan, it can be considered a model study and an important one as such, with many lessons learned. East Kazakhstan region was the first place to test these preventative approaches and to conduct such research and it is probable that the next time suicide preventive activities are conducted they will be even more successful due to previous experience. In Kyzylorda province, the experiences of East Kazakhstan region were taken into consideration as described here below. It is clear that future work in the whole region needs to be carefully translated and culturally adapted in collaboration with local mental health workers and the general public. Specifically, the needs of the school psychologists needs to be taken into account and they need to be given outside support alongside training to identify and help adolescents at risk.

It appears that the school psychologists at the time of the Suicide study, were left to tackle adolescents at risk without almost any support from other sectors. Mental health workers outside the school system claimed to have no time or authority to support the school psychologists in these situations. This, of course, is not effective or helpful for the adolescents at risk and the Kyzylorda Region experience shows to what effect collaboration between sectors and guidance from the regional government benefits everyone involved. Efforts need to be made to destigmatize suicide not only among the general public, parents, adolescents, school staff, public sector workers, but also among those who work directly with adolescents with mental health problems, namely psychiatrists and psychologists in the health sector. Awareness about
mental health issues and suicide specifically should be provided alongside gatekeeper training, all described in the recommendations below.

One particular bias of the data collected during the site visit to East Kazakhstan Region, is the fact that the psychologists and psychiatrists present during the informal conversations and those answering the questionnaire were staff who had been directly trained by the international research team during the Suicide study. It can be assumed that their knowledge level regarding suicide is not representative for all mental health care workers, psychologists and psychiatrists alike, in the region.

7.2 The case of Kyzylorda Region – learning from experience

When analysing the different types of data it became apparent that Kyzylorda Region had lower suicide figures than the other regions and general acceptance of suicide among school personnel, psychologists and psychiatrists was higher in this region. This raises the question of what is particular to this region, and the answer is probably not that simple. Of course, the leadership and support on the regional level by the deputy governor was of great importance. But, other factors could be influential as well and augmented by the framework given by leadership in the region. Moreover, collaboration between sectors, namely the department of education, health, the police and the former department of child protective rights rendered the work more effective. Psychologists from the health and education system worked together in subregional working groups in all eight administrative districts of the province. This collaborative effort came about at the incentive and oversight of the local government and a regional council for the prevention of suicides in minors chaired by the deputy governor. A training of all educational psychologists was conducted and a system of early recording of suicide attempts was established. Each case of suicidal behaviour was closely monitored to gain experience and learn lessons from each individual case.

Moreover, the experience of already having worked on the field in East Kazakhstan region for the Suicide study possibly lead to a more effective and well-informed effort in Kyzylorda Region. Other factors which were not elucidated due to short timeframe of the assessment may play an important role, such as religious and cultural mores as regards health care, mental health, suicide, as well as economic factors, known to contribute to suicide rates. Finally perhaps there are differences in the availability of healthcare facilities, in the training of healthcare and mental healthcare professionals that need to be considered before the further implementation of the programme. All these issues are important to consider when evaluating the suicide preventive action plans in Kyzylorda and for the best result, we recommend to talk further at length with those responsible in the field who implemented these activities, and the reflections should be used wisely when moving forward with such work to other regions throughout Kazakhstan.

It appears that despite the mutually reinforcing work in the health and education sector, psychiatric assistance and treatment was severely lacking. The psychiatric community in Kazakhstan are very reluctant to treat suicidal patients and they are in great need to improve their skills and increase their knowledge about suicide and how to help a suicidal patient.

8. Recommendations

The recommendations that came of the Suicide study and preventive project in 2012-2013, stated above in brief, are all important and scientifically sound. It is our opinion that the previous suicide project was more oriented towards an analysis of the current situation than towards taking action against suicide. Due to the high suicide rates in Kazakhstan taking urgent action along with the evaluation of the preventive efforts seems to be an absolute priority.
Consequently, we will here describe a few recommendations for immediate actions to prevent suicide, taking into account which preventive programmes appear more adequate for Kazakhstan, according to the current evidence base and also in the light of the cultural context and general feasibility. All recommended strategies could be implemented at the local and regional level and eventually scaled up to the national level.

The recommendations are organized according to the Universal, Selective, Indicated prevention model, widely used in the field of suicide prevention and the theoretical model utilised by the WHO in categorising suicide preventive strategies (WHO World Suicide Report: “Preventing Suicide. A Global Imperative” 2014).

### 8.1 Universal preventative activities

**Raising Awareness of adolescents**

An awareness programme for adolescents was evaluated in a large-scale multi-centre suicide prevention randomized controlled trial including a long-term evaluation follow-up of 12-months (Wasserman 2014), namely the Saving and Empowering Young Lives in Europe (SEYLE) research project. The study found that the Youth Aware of Mental Health (YAM) programme was effective in reducing incident suicide attempts and severe suicide ideation / plans by nearly 50%, in comparison with a control group (Wasserman et al. 2014 Lancet). The programme is five hours long and could be implemented in Kazakhstan after cultural adaptation and proper translation. This programme seems particularly adequate because it is evidence-based and could be inserted in the school curricula. Beyond preventing suicide attempts, the YAM programme has the added value of improving coping strategies, encouraging healthy life-style choices, nurturing empathy and peer-support, augmenting help-seeking behaviour and destigmatizing mental health problems and suicide. Implementation of the programme in the school setting would require training a number of instructors who could afterwards deliver the programme to adolescents in their regions. These could be school psychologists or other health professionals already working in the school system. This method targets children and adolescents by raising their awareness about mental health and suicide, and training their coping skills to manage crisis situations leading to a decrease in suicidal behaviours and deeper understanding of different kinds of mental health problems and risk factors that may lead to such behaviours. The YAM programme is particularly suited for Kazakhstan because it doesn’t target only suicidality but a range of risk and unhealthy behaviours, including alcohol and substance use, as well as particular focus on improving healthy lifestyle choices, decision making, self-efficacy and help-seeking behaviours. YAM requires the involvement of the local health sector to which adolescents in need of clinical help are advised to turn. The programme has been shown to significantly decrease new cases of suicide attempt.

It is advisable to combine the programme with a screening programme to identify those at high risk for suicide. The implementation of the screening programme requires additional support by the health sector that should be able for intake of adolescents at risk referred by the screening program. It is therefore recommended that working relationships are established with healthcare facilities so that they are prepared to receive an increased amount of potential patients due to screening activities in schools.

### 8.2 Selective preventative activities

**Gatekeeper training**

Individuals at risk of suicide rarely seek help, however these individuals may exhibit risk factors and behaviours that identify them. Gatekeeper training programmes aim to develop the
knowledge, attitudes and skills to identify individuals at risk, determine the level of risk, and then refer at-risk individuals for treatment. A “gatekeeper” is anyone in a position to recognise a crisis and warning signs that someone may be contemplating suicide. In relation to adolescents, key potential gatekeepers include teachers and other school staff, such as school psychologists and nurses, but it also extends to other members of society such as healthcare workers, psychiatrists, policemen, firemen, emergency personnel and anyone else in the position to work with or engage with adolescents. Gatekeeper training has been shown to positively affect the knowledge, skills, and attitudes of trainees regarding suicide prevention. A large number of suicide victims have had contact with primary care providers within the month prior to the suicide. Educating primary health care workers in recognising depression and performing detailed evaluations of suicide risk is therefore important for preventing suicide (du Roscoat & Beck 2013). However, it should be kept in mind that a functioning and effective health care system is important for successful gatekeeper referrals. For this reason, gatekeeper training should be coupled with training of health workers and mental health professionals. Actions to increase accessibility to mental health care should be taken as well.

**Screening of adolescents at risk**

The primary objective of screening programs is to help young people and their parents through the early identification of mental health problems, such as anxiety, depression, substance abuse, and suicide. Screening strategies are based on the premise that suicidal adolescents are under-identified, suffer from an active, often treatable mental illness such as depression and exhibit identifiable risk factors. A common objection to screening programs for adolescents is that asking about suicide could increase suicidal ideation and behaviour. About this issue a study by Gould et al. (2005) on more than 2,300 students reported no evidence of iatrogenic effects of suicide screening and that screening in high schools is a safe component of youth suicide prevention efforts. Even if evidence is lacking about effectiveness of screening programs in preventing suicide, these interventions are theoretically valid and should be implemented, especially for high risk groups. For example, screening and assessment are key to addressing mental health treatment needs of youths in the juvenile justice system (JJS). It has been described that as many as 70 percent of youth in the JJS have a mental disorder, and one in five suffer from a mental illness so severe to impair their ability to function as a young person and grow into a responsible adult. An absence of treatment may contribute to behaviours that include continued delinquency and, eventually, adult criminality. The implementation of screening program requires additional support by the health sector that should be able for intake of adolescents at risk referred by the screening program. It is therefore recommended that working relationships are established with healthcare facilities so that they are prepared to receive an increased amount of potential patients due to screening activities in schools. Moreover, capacity building programmes for healthcare personnel are essential as well as collaboration of parents and caregivers.

**Interventions for high risk groups**

Specific interventions should be designed for groups of adolescents who are particularly vulnerable to suicide and mental health problems. While a number of vulnerable groups have been identified as having higher risk of suicide, according to the results of the Suicide study, interventions for alcohol misusers appear to be particularly important for Kazakhstan and are therefore recommended. Another well-known group for high vulnerability to suicide and mental health problems are the juvenile justice population. It is therefore recommended that the possibility for action in the population of juvenile offenders is taken into careful consideration
after an adequate analysis of the mental-health related needs of this population. These actions require close inter-sectoral collaboration with the justice system.

8.3 Indicated preventative activities

Treatment of adolescents with mental health problems and suicide risk

Mental health disorders represent one of the most important risk factors for suicide and attempted suicide (Nock et al., 2009). They are however frequently unrecognized and/or untreated. The improvement of identification and treatment is therefore one of the key strategy in suicide prevention.

Research shows that psychological treatment and if necessary combined with pharmacological treatments is highly effective in the treatment of adolescent depression and childhood anxiety disorders (Butler et al., 2006). It is however important to take into consideration that multiple factors are related to poor identification and treatment of mental health disorders, such as low mental health literacy and experience, stigma, lack of cooperation with and between psychiatrists and poor interview skills. Addressing these issues may therefore be important for improved diagnosis and treatment.

In order to improve treatment of children and adolescents with mental health disorders and suicide risk in Kazakhstan, it is recommended that specific training programmes for mental health professionals are developed and implemented. It is suggested to develop written materials and guidelines, created locally with an understanding of local sociocultural factors, which could be used as terms of reference by psychiatrists and other mental health professionals. It is also recommended that actions with the objective of reducing stigma around suicidal patients are undertaken. However, it is important to try to understand what the stigma is grounded in and discuss the issue with respect and care for local customs.

8.4 A collaborative effort of preventive models and national coordination

An effective action to reduce suicide rates in Kazakhstan would require the synergistic effects of the above-mentioned preventative programmes. It is likely that utilising only one of these approaches would limit the effectiveness of the overall effect. An awareness-increasing programme is a universal approach targeting the adolescents directly, which would contribute to mental health promotion and would significantly limit the emergence of new cases of suicidality. Gatekeeper training, coupled with training of school staff coupled with the continued education of health workers and mental health professionals, would allow for adolescents currently at risk to be identified and referred to healthcare services that are able to provide adequate treatment. All three programmes would greatly and synergistically contribute towards reducing mental health and suicide related stigma in Kazakhstan.

For such a synergistic effort to be possible, it is of utmost importance that the Ministry of Health and Social Development support these strategies on a national and regional level. As was recommended in the Suicide study report, it is important that suicide prevention focus not only on reducing single risk factors but that a more comprehensive and long-term national preventive plan is needed. In order for the preventative programmes mentioned above to work effectively they should be applied across the country, across sectors, targeting schools, the healthcare system, police, firemen and other public sector workers as well as psychologists and psychiatrists working with adolescents and suicidal patients. A national coordinating centre for suicide prevention including qualified professionals in the field of suicidology, public health, psychology, psychiatry, anthropology and community health would greatly facilitate such work. Such a coordinating centre would make sure that the different sectors and services across Kazakhstan
effectively communicate and collaborate. In conclusion, Kazakhstan authorities need to make suicide prevention a priority and provide the management structure on a national, regional (province / oblast) and district level.

8.4 Evaluation of the suggested Suicide Preventive Strategies in Kazakhstan

It is strongly suggested to proceed according to the public health model, which prescribes that any preventative effort should be scientifically evaluated in order to identify strengths and weaknesses and on a regular basis to update the implemented preventive strategies accordingly to the results of the evaluation. Programmes must also be evaluated to allow decision-makers to understand obstacles and positive aspects of the interventions and consequently use the context dependent strategies for continued suicide prevention.

It is important to plan for the evaluation and implement it at the same time the suicide preventative intervention starts. Sampling procedures, use of standardised and validated instruments, clearly selected operationalised outcome measures and questions for the process evaluations should be decided before interventions start and culturally adapted and translated to the local context. Although randomized controlled trials are the preferred method for evaluation studies, this design, which is expensive and unfeasible in many situations, can be replaced by quasi-experimental designs (see Shadish et al, 2002 for a comprehensive review).

9. References