REPUBLIC OF ESTONIA
MINISTRY OF SOCIAL AFFAIRS

JAImpleMENTAL

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Country Profile "Estonia"

Suicide and Suicide Prevention: Key Facts and National Priorities

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Contents

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Introduction

The EU-Co-funded "Joint Action on Implementation of Best Practices in the area of Mental Health", short **JA ImpleMENTAL** has a duration of 3 years, lasting from October 2021 to September 2024. Detailed information can be found at the project's website JA ImpleMENTAL ja-implemental.eu. It aims to promote and improve mental health structures, services, capacity and outcomes in participating countries in 2 specific areas:

- mental health reform (promoting community health services) and
- suicide prevention.

Two national best practices - mental health reform in Belgium and the Austrian suicide prevention programme SUPRA - serve as best practice examples. Selected components of these should be prioritised and implemented over the course of the JA in 14 i.e. 17 participating EU-countries. JA ImpleMENTAL comprises 6 Work Packages (WPs), 4 horizontal WPS and one for each best practice. **WP6 on suicide prevention** aims to support improvement in knowledge and quality of suicide prevention services. Defined elements of SUPRA should be transferred and pilot implemented at national/regional level, suicide prevention strategies in participating countries developed i.e. revised. **The present country profile** is one of the major deliverables of the JA, presenting national priorities for suicide prevention embedded in contextually relevant facts. It summarizes results of the national Situation- and Needs Assessment (SANA), lists lessons learned, recommendations and prioritized measures for suicide prevention. It includes challenges and opportunities as well as outlining next steps necessary to scale-up i.e. promote national/regional suicide prevention activities. The country profile is a basis for strategy formulation, for decision-making and a declaration of commitment to suicide prevention.

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1 Context

1.1 Country, Health and Social System

Estonia is a democratic parliamentary republic with 15 counties, located in northeastern Europe on the southern coast of the Gulf of Finland, an arm of the Baltic sea. It is the smallest of the Baltic States, with 1.365 884 million inhabitants, of which approximately 30% live in rural area (1). The country has an area of 45,227 km² and is one of the least populous country in the world, with a moderate population density of 31.4 people per km^2 (1). The capital and largest city of Estonia is Tallinn, with population of 454,245 (2). The official language is Estonian that belongs to Finno-Ugric groups of language. This Baltic country gained first independence in 1918, after the First World War. The independence was lost in 1940 after the beginning of Second World War, and restored again in 1991 (3). After regaining independence, Estonia has embarked significant economic reforms and by 1993 succeeded in reversing the declining trend of GDP (4). Estonia has joined to the North Atlantic Treaty Organization (NATO) and the European Union (EU) in 2004, to the Organisation for Economic Co-operation and Development (OECD) in 2010, and to the Eurozone in 2011. Overall, Estonia's life expectancy at birth has increased more than in any other EU country and is now closer to the EU average, although still two years below. The healthy life expectancy at birth has increased from 66.5 years in 1994 to 77.2 in 2021 (5). The average life expectancy for males is 72.8 years, while for females 81.4 years (2021). On average, women live 8.5 years longer than men (6). This gap in life expectancy by gender is much greater than the EU average of 5.6 years. In addition, the difference between genders in years of disability-free life also exists. In Estonia, men can expect to live disability-free for 54.9 years and women for 58 years (6).

Table 1: Population structure: year, expressed as number of persons, by age and sex

Age group	Sex		Total
	Male	***Female***	
<20	145788	138589	284377
20 - 64	392227	383046	775273
65+	176746	95400	272146
Total	714761	617035	1331796

Source: Statistics Estonia, 2023

The EUROSTAT data show that at-Risk-of-Poverty rate was 22.80% in 2022, being a record high, while a record low was 15.80% in 2010 (7). Income inequality, expressed as the Gini Coefficient was 0,319 in 2021 (8). The unemployment rate was 5,4% in 2022. The total healthcare expenditure relative to GDP has increased since 2000 to 7.5 percent of GDP in 2021, but is lower than the EU average (9.9% of GDP) (9). For example, in per capita terms, spending on health in 2019 was EUR 1 733, which is less than half the EU average (4). The government's total expenditure on mental health as % of total government health expenditure was 3.7% (10). Estonia invested around 27 million Euros in mental health and substance abuse facilities in 2019. This was an increase of almost 17 million Euros since 2010 for these institutions and almost two million since 2018 (4). The Estonian health care system is based on the health insurance that employs the principle of solidarity (11). Funding for the unified

health insurance of Estonia comes from the insurance tax (social tax), which is paid on the income of workforce. National health insurance coverage is supervised and medical expenses are paid by the *Estonian Health Insurance Fund* (EHIF) that operates as a semi-autonomous public organisation, pooling most of the public funding for health and organising the purchasing of health care (11). Most adult patients covered by the national health insurance are still required to pay medical fees, such as in-patient fees, co-payments towards prescriptions, etc. The key institutions responsible for planning, management, regulation and funding of health system functions are the Ministry of Social Affairs and institutions under its management (State Agency of Medicines, Health Board), as well as National Institute for Health Development and Estonian Health Insurance Fund) (11). All major hospitals in Estonia are publicly owned; they provide inpatient care and the majority of outpatient specialist care. Most primary health and dental care providers are private, as are some providers of outpatient specialist and nursing care (3). A primary care network of mostly private family doctors acts as the first point of contact for health care in Estonia. Secondary health care services are available at hospitals and outpatient care clinics; Estonia's two largest hospitals, located in Tallinn and Tartu, account for around half the total volume of specialist services provided in the country (3).

1.2 Mental Health System

Mental health care in Estonia is regulated by several laws and regulations. In addition to the Health Insurance Act (last amendment in 2023), the Health Services Organization Act (last amendment in 2023), the 1997 Mental Health Act (last amendment in 2022) regulates the organization of psychiatric care and defines the financial obligations of the state and local governments in the organization of such care. The Mental Health Act (12) defines procedures and conditions for mental health care provision and involuntary treatment. It applies to all psychiatric patients and basically follows the 1991 United Nations principles on protecting the rights of those with mental health disorders. As a part of specialized medical care, mental health care includes the diagnosis, treatment, rehabilitation and prevention of mental disorders (3). It is provided mainly by psychiatrists, mental health nurses and clinical psychologists, and in outpatient and inpatient settings; the latter is mostly used in the event of short-term crises or for solving complex differential diagnostic and treatment problems. To access mental health care, a patient may turn directly to a specialist for an outpatient consultation without a family doctor's referral, while for most disease areas family doctors perform a gatekeeping function (3). Psychiatric beds are mostly integrated into larger multispecialty hospitals. As part of the overall trend, the number of psychiatric beds decreased from 185.8 per 100 000 population in 1990 to 52.6 in 2004 and has stabilized since then (3,10).

The vision for the future of mental health in Estonia is described in four national strategies; (1) the long-term national development strategy "Estonia 2035", (2) the Population Health Development Plan 2020–2030 (*Rahvastiku Tervise Arengukava* 2020–2030*) (13)*, the Green Paper on Mental Health (*Vaimse Tervise Roheline Raamat, 2021*) and the Mental Health Action Plan 2023–2026 (*Vaimse Tervise tegevuskava* 2023–2026) (13–16). The Ministry of Social Affairs developed the Mental Health Action Plan 2023–2026, in cooperation with stakeholders, with an aim to respond to needs in development of mental health care and to set more specific targets. It describes the existing problems and expected changes in comparison with current situation. The Action Plan covers five main areas; (1) sector

development and innovation, (2) promotion, prevention and self-help, (3) community-based support, (4) mental health services, (5) organising mental health and psychosocial support in crises (16).

Table 2: Facilities, number of beds and hospital admissions related to mental health (2022)

Indicator at national level		Number	Rate per 100.000 adult/minor population
Mental health hospitals	Facilities	3	0.3
	Beds	128	12.1
	Admissions (annual)	NA	NA
Psychiatric wards/units in general hospitals	Wards/units	6*	0.6
	Beds	663	62.6
	Admissions	9328	880.1
Mental health inpatient facilities specifically for children and adolescents	Facilities	4	1.5
	Beds	53	19.5
	Admissions	955	351.3

*(excluding wards/units for children and adolescents, National Institute for Health Development (TAI, 2021)

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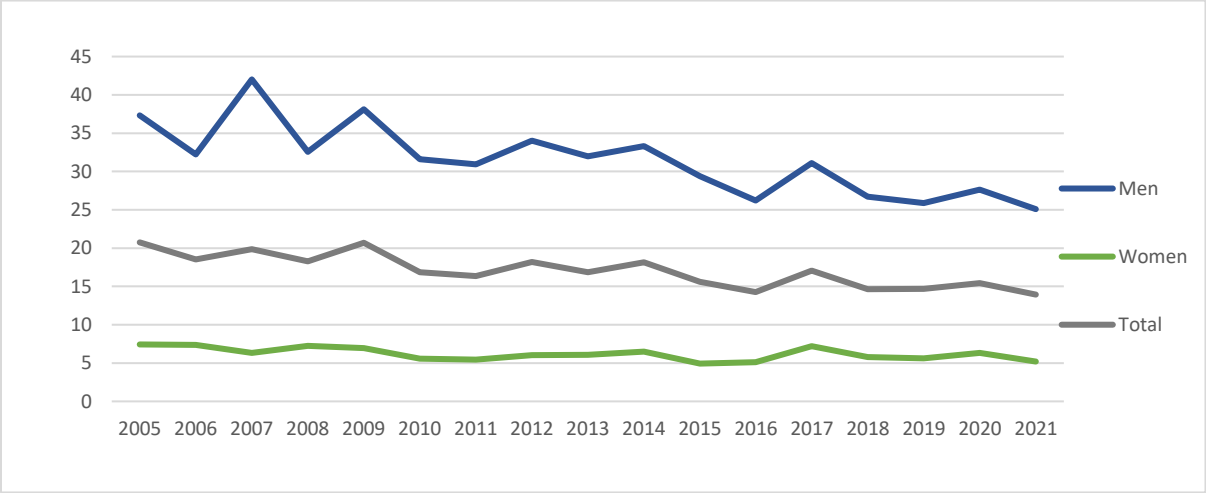
2 Suicide and Suicide Prevention

2.1 Situation Analysis (SA)

2.1.1 Suicide rates and methods of suicide

For understanding the trend of suicide rates in Estonia, it is important to consider that Estonia just like other Baltic States, has gone through historical changes that affected the country socio-economically and politically (17). The surveys on mortality data showed that middle-aged males have been mostly impacted by social changes, resulting in increase in suicide rate during 90-ies (18,19). Although Estonia had consistently higher suicide mortality rates in Europe, the level of suicide shows a declining trend during 21st century, and being the highest in 2001 (rate 28,8) (20). Over the last decade, this declining trend stagnates and the annual number of suicides is approximately around 200 (20).

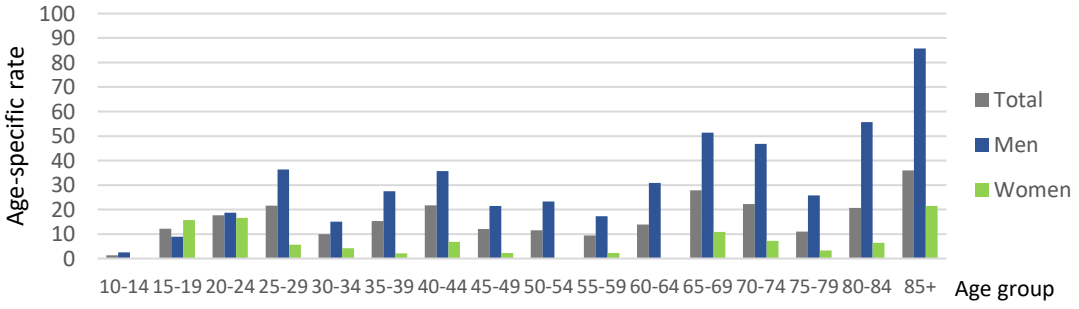
Figure 1: Suicide rates per 100.000 in Estonia 2005-2021 by sex



Source: National Institute for Health Development, 2023 (Standardized suicide rates, standardization Europa 2013)

In 2021, 186 people died by suicide and standardised suicide rate was 13.9 per 100.000 (males 25.1, females 5.2)(21,22). In comparison to the European Union average, suicide rate in Estonia is higher, but the trend is towards this target (22).

Figure 2. Suicide rate: 2021, by age groups and sex



Source: National Institute for Health Development (TAI, 2023), not standardised to European population 2013

By age group, the higher rates of suicide are found among persons aged 20-24 (males and females), 25-29 (males), 40-44 years of age (males), and for male populations older than 65 years of age. One of the most vulnerable groups to suicide seems to be the group of younger men (25-29 y) with the method of choice such as hanging, jumping from height and shooting. Estonia has recorded a higher suicide rate for females aged 15-19 years, using self-poisoning as the method of choice, than for males at the same age. Overall, hanging is the mostly used method of suicide among men and women, with differences according to age-groups. For the period from 2016-2020, 71.3% of suicide deaths were caused by hanging, which is a decrease in comparison with the period from 2001 to 2005 (77.6%) (20). This is especially observed by females (57% for 2016-2020 period) (20). Other commonly used methods in a total population during the same period (2016-2020) are self-poisoning (10.5%), shooting (7.6%) and jumping from a high place (4.5%) (20). As reported, differences exist between genders and age groups in a method of choice. For example, among females in age groups 0-19 and 20-39, the first method of suicide is self-poisoning, and among males it is hanging.

Table 3: Most common methods of suicide: year, by age group and sex

Sex/Age	0-19	20-39	40-59	60-79	80+
Women	1. Self-poisoning 2. Hanging 3. Crashing a vehicle	1. Self-poisoning 2. Hanging 3. Crashing a vehicle	1. Hanging 2. Self-poisoning 3. Jumping from a high place	1. Hanging 2. Self-poisoning 3. Jumping from a high place	1. Hanging 2. Drowning 3. Self-poisoning
Men	1. Hanging 2. Jumping from a high place 3. Shooting	1. Hanging 2. Jumping from a high place 3. Shooting	1. Hanging 2. Jumping from a high place 3. Shooting	1. Hanging 2. Shooting 3. Self-poisoning	1. Hanging 2. Jumping from a high place 3. Shooting

Source: National Institute for Health Development, 2023

Recent epidemiological analysis (20,23) have identified a few vulnerable groups such as males, having basic or lower education (rate 29.1), youth, elderly, with low socio-economic status, unemployed, prisoners and offenders, people with mental illness, history of suicide attempts and chronic disease (Box 2).

Box 2. Groups most vulnerable to suicide (20,23):

Group 1: Youth

Group 2: People with history of suicide

Group 3: People with mental illness

Group 4: Elderly

Group 5: People with low socio economic status

Group 6: Prisoners

Group 6: People with lower educational level

2.1.2 Suicide attempts

In 2020, the number of persons involved in suicide attempts registered in the medical system was about 10 times more often than suicides (20). The rate of persons attempting suicide was 144 per 100 000 (20). The recent epidemiological survey on data from 2000 to 2020 shows that trend of suicide attempts is rising (absolute number was 1,4 times higher in 2020 than in 2009) (20). Table 4. shows that the rate of suicide attempts is higher among men than among women, with an exception for younger age groups. By age groups, suicide attempts occur most often among 15–19-year-olds, and in the younger age groups, the rate among females is higher than among men.

Table 4: Hospitalization due to self-harm: year, by age group and sex (2020) (20)

	10-19		20-39		40-59		60-79		80+	
	N	rate	N	rate	N	rate	N	rate	N	rate
Women	285	385.2	277	169.6	185	103.9	102	62.3	17	29.6
Men	124	175.6	386	217.1	359	203.8	198	178.7	21	105.2

Source: Värnik, P, Sisask, M., Värnik A. Enesetappude ja enesetapukatsete epidemioloogiline ülevaade Eestis: uuringu raport. Kopenhagen: WHO Euroopa Regionaalbüroo, 2021

As shown in Table 5, the most frequently used methods for suicide attempts from 2004-2020 were self-poisonings with medicines (31.45%), alcohol (29.5%), and with sharp objects (10.5%). While females tend to use medicines (45.1%) for suicide attempts, males used mostly alcohol (14.1%). The usage of sharp objects is more frequently used by the female population (11.7%), although this difference is not so large if compared to males (10.5%).

Table 5. Most common methods of self-harm with or without a suicidal intent (cases registered by the Health Insurance Fund) by diagnosis and sex in Estonia 2004-2020 (20)

Diagnose	ICD-10	Total	Men	Women	Total	Men	Women
Self-poisonings with medicines, intentional	X60-64	13892	4723	9169	31.4%	19.7%	45.1%
Self-poisoning with medicines, unclear intention	Y10-14	1031	510	521	2.3%	2.1%	2.6%
Self-poisoning with alcohol, intentional	X65	9929	7058	2871	22.4%	29.5%	14.1%
Self-poisoning with alcohol, unclear intention	Y15	1188	802	386	2.7%	3.3%	1.9%
Sharp object, intentional	X78	4905	2521	2384	11.1%	10.5%	11.7%
Sharp object, unclear intention	Y28	1957	1262	695	4.4%	5.3%	3.4%
Unspecified event, unclear intention	Y34	5752	3577	2175	13.0%	14.9%	10.7%

Source: Värnik, P, Sisask, M., Värnik A. Enesetappude ja enesetapukatsete epidemioloogiline ülevaade Eestis: uuringu raport. Kopenhagen: WHO Euroopa Regionaalbüroo, 2021

2.1.3 Suicide prevention activities

Estonia has a long tradition of research on suicidal behaviour through the Estonian-Swedish Institute of Mental Health and Suicidology (ERSI) founded in 1993 (20). This research institution contributed to suicide education and awareness, international research, providing practical help (e.g., setting up a telephone helpline) and networking (e.g., the Coalition for Mental Health and Well-being - VATEK) (24). ERSI participated in numerous projects under the auspices of WHO (in the Multicentre Parasuicide study, SUPRE-MISS), the European Commission (EAAD, ProMenPol, MONSUE, EMIP, IMHPA, OSPI, SEYLE, MHP-Hands, T-MHP, WE-STAY, i-Fight Depression) (20). In 2022, The Ministry of

Social Affairs financially supported the survey on "Treatment of suicidal patients in primary health care, ambulance services and emergency services," conducted by ERSI and Tallinn University.

A lot of efforts were directed at **increasing awareness of suicidal behaviour and suicide** as a public health problem. From 2000 onwards, a variety of WHO materials have been translated into the Estonian language (for GP, primary health workers, working place, teachers and other school staff, prisoner workers, media reporting).

In Estonia, **nationwide crisis support hotlines** 24/7 exist, separately for adults and for minors. It consists of telephone helplines and online chats. The administrative body in charge is the Social Insurance Board. The crisis lines cover the topic of crisis intervention, and there is no specific hotline that is just dedicated to suicide prevention.

In-person psychosocial/psychiatric crisis services (24/7) are available for all ages in a few bigger cities (Tallinn, Tartu, Pärnu, Viljandi). The **follow-up care** after an emergency contact (in-patiens or out-patient services) are not standardised.

Trainings for gatekeepers (e.g., in educational setting, for general practitioners etc.) are provided periodically, and depending on available funds from different projects. In addition, these trainings are more focused on the topic of mental illness (such as depression) in general.

With reference to **means restriction,** Estonia has standards on weapon security and norms for prescription practice regulation. Regarding the constructional measures, there are some places with preventive restictions of a fall from a height, but this is not systematically applied.

Concerning **collaboration with the media**, the online course on suicide reporting for media was developed by WHO office in Estonia in collaboration with international experts in the field of suicidology.The course is aimed at students of journalism. It is not yet systematically used and widely applied but rather used occasionally, depending on the course leader at the university. An important role in media monitoring belongs to NGO „Peaasjad“ (www.peaasi.ee) that overviews as much as possible media reports on suicide, and reacts when necessary. Also, this NGO provides information on suicidality, crisis intervention, and available services.

Currently annual report on suicide mortality is not published regulary and annually. While the data on suicide mortality and methods are obtained from death registry, the data on self-harm are obtained from the Estonian Health Insurance Fund. The period between the end of the calendar year and the availability of the data on suicide is six months.

2.2 Needs Assessment (NA)

The SWOT analysis is a result of the consultations of the Mental Health Department in the Ministry of Social Affairs and the members of the Advisory Board consisting of a variety of stakeholders (Social Insurance Board, National institute for Health Development, Tallinn University, Estonian-Swedish Mental Health and Suicidology Institute, NGO „Peaasjad“, representatives of GPs, Estonian Psychological Association and Estonian Psychiatric Association). The aim was to include diffent stakeholders from science, educational, social and health sectors and policymakers in order to commonly discuss available and potential suicide prevention interventions and provide thorough analysis from different angles. The needs analysis consisted of a few steps such as 1) reviewing results of situational analysis (SANA), 2) presenting the results to the Advisory Board, 3) making an overview of available materials – research articles, policies, and reports, 4) consulting with stakeholders on

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already existing resources, 5) identifying urgent needs and interventions in suicide prevention (target population, intervention type). The SWOT analysis was conducted using the guiding questions on strengths, weaknesses, opportunities and threats. Then, the previously collected needs by the SANA questionnaire were integrated and discussed. Finally, a focus setting and prioritization were performed.

Table 6. SWOT Analysis

STRENGTHS	WEAKNESSES
• Small country • Increased resources on the topic in the Ministry of Social Affairs (MoSA): established Mental Health Department with one additional position for suicide prevention • Mental Health Action Plan 2023-2026 • National Strategic Partnership (VATEK Existence of a prevention programme (evaluated) • The willingness of professionals to take on a role • Strong primary care GP system • National Health Information System is a prerequisite for good data exchange • Availability of data • Long tradition of research • Available e-training for media professionals	• Lack of basic training on suicide risk assessment and initial intervention • Shortage of MH professionals in primary care • Local authorities have little responsibility for healthcare • Lack of data/information exchange between sectors: social-health-education • Resources are available but not used • Lack of human resources, including MH nurses • Poor capacity to provide services to people with a different language and culture • Support groups as a service format underused, low quality • Focus on expensive and systemically complex solutions (including digital solutions) • No solutions in daily environment (workplace and school) • Older people neglected, focus on young people
OPPORTUNITIES	**THREATS**
• Hot spots- identification • Training for gatekeepers (GP, EMO, school nurse, school professionals, helpline staff) or recognizing and management of suicidal risk • Pharmacists – role? • Occupational health specialists • Existing system of school nurses and possibility of strengthening their role, link to health system • Strong political will, "hot" topic • Mental health as a political and institutional (Mental Health Promotion Department in NIHD, Health Insurance Fund, Social Insurance Fund) priority • Subsidy measures for the local authorities • Development of community activities • Loneliness of older people – not covered enough by activities • The role of the families and relatives • Increased courage to speak out about MH problems, reducing stigma	• High suicide rates among young people • Lack of organization for further access to services and coping when a child with problems reaches adulthood. • Postvention almost non-existing • Emphasis on noticing and assessing, less on intervening and helping - encourages avoidance of responsibility • Lack of access (treatment/therapy) and fragmentation (follow-up) of services • Lack of funding in the health system • Lack of human resources • Project-based funding for community services • Untrained professionals with a role to play • Informal networks

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3 Reflection on SANA results

The situation analysis (SANA) and SWOT analysis have revealed the areas that should be addressed with the suicide prevention action plan and quick wins. The prioritized implementation measures are presented in Box 2. The facilitators and barriers for the implementation of these measures are summarised in SWOT analysis (external factors- opportunities, threats) that was performed in cooperation with stakeholders. Until now, the successful implementation of suicide prevention activities was facilitated by networking (international, national), research (showing results of the surveys), multi-sectorial cooperation (government, NGO, researchers), multilayered cooperation (national/regional), increased awareness of suicidal behaviour as public health problem, educating different sectors in approach to suicidal people and including suicide prevention activities in national mental health strategy, national health action plan.

Box 2. Prioritized measures for implementation

- Activities targeted to raise awareness
- Training gatekeepers (crisis lines staff, emergency care staff, crisis intervention team) on response to suicidal crises and recognizing risks
- Improving media reporting on suicide and mass violence
- Establishing a system of postvention and follow-up of people with a history of suicide attempts

QUICK WINS

- Development of the draft strategy for suicide prevention
- Algorithm to manage suicidal persons in primary health care and first contacts (schools)
- Training crisis lines staff, primary contacts in health care to recognize suicide risk
- Papageno Award (for responsible reports on suicide in the media)
- Annual reporting on suicide mortality

4 Next steps

The next steps include preparation for some of the activities that will be implemented on a national level:

- To draft strategy for suicide prevention
- To disseminate algorithm of recognizing suicidal risk for primary contacts in healthcare (gatekeepers)
- Training in crisis communication/teaching practical skills and enabling gatekeepers (GP, emergency care personnel, schools, crisis lines workers)
- Training for journalists in media reporting on suicide
- Provide support and improve postvention services
- Improve communication between GP and psychiatric care
- To expand collaboration with national railway operators and prepare interventions on railways
- To prepare regular annual report on suicide and self-harm together with National Institute for Health Development (NIHD)
- To use social media and a specific website for raising awareness and dissemination of information on where to seek help.

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