Trends of Suicide and Suicide Countermeasures in Cambodia

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Abstract

The Japan Support Center for Suicide Countermeasures (JSSC) conducted field study in Cambodia, as a member state of the WHO Regional Office for the Western Pacific (WPRO).

Objectives: The main purpose of this study were (1) to understand the current situation, challenges in suicide countermeasures in Cambodia through discussion with the WHO Cambodian Country Office, Cambodian Ministry of Health, and (2) to consider Japan's possible future technical cooperation to Cambodia on suicide countermeasures.

Results: In Cambodia, many doctors were killed by the Pol Pot regime, the number of doctors who specialize in mental health was particularly limited. In addition, Cambodia's suicide rate at 12.8 per 100,000 people (age-adjusted, 2015), which was higher than in neighboring Asian countries (WHO data), however, no official suicide data collection system existed in Cambodia.

Conclusions: Japan, a fellow WPRO member state and a country that played a certain role in the democratization of Cambodia in the 1990s, should provide technical assistance for the improvement of the health and medical care system in Cambodia and for building a base for specialized mental health medicine. Japan can also offer technical support for suicide countermeasures, building a statistical system and establishing a suicide reporting system. Furthermore, Japan can provide international human training, or organize participatory training in Cambodia, and share various measures to prevent suicide.

1. Global Trends of Suicide and Suicide Countermeasure

Every year, about 800,000 people die of suicide worldwide,[1] and the number of deaths by suicide accounts for 1.4 percent of all deaths globally.[2] Suicide is ranked as the 17th leading cause of death (2015).[2] Furthermore, suicide is the second leading cause of death among 15-29-year olds.[1] Mental illness and mental disorder account for 14 percent of the global burden of disease, and 75 percent of those who have these illnesses live in developing countries without access to mental health care.[3] In response to these statistics, the World Health Organization(WHO) has set up the WHO Mental Health Gap Action Program (mhGAP) to enable both developed and developing countries to have discussions on challenges in the field of mental health on a common platform and to work on improving addresses on mental health in developing countries, including with technical assistance.[3]

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Table 1. Global Health Estimates 2015: 20 leading causes of death 2015

	Cause of death	% of total deaths	Crude Death Rate (Per 100,000 population)
1	Ischaemic heart disease	15.5	119.2
2	Stroke	11.1	85.0
3	Lower respiratory infections	5.7	43.4
4	Chronic obstructive pulmonary disease	5.6	43.2
5	Trachea, bronchus, lung cancers	3.0	23.1
6	Diabetes mellitus	2.8	21.6
7	Alzheimer disease and other dementias	2.7	21.0
8	Diarrhoeal diseases	2.5	18.9
9	Tuberculosis	2.4	18.7
10	Road injury	2.4	18.3
11	Cirrhosis of the liver	2.1	15.8
12	Kidney diseases	2.1	15.4
13	HIV/AIDS	1.9	14.4
14	Preterm birth complications	1.9	14.4
15	Hypertensive heart disease	1.7	12.8
16	Liver cancer	1.4	10.7
17	Self-harm	1.4	10.7
18	Colon and rectum cancers	1.4	10.5
19	Stomach cancer	1.3	10.3
20	Birth asphyxia and birth trauma	1.2	9.4

The United Nations (UN) held the “UN Sustainable Development Summit” at its headquarters in New York in September 2015, where leaders of more than 150 member states adopted the “Sustainable Development Goals (SDGs)” for the period from 2016 to 2030. The SDGs are made up of 17 goals and 169 indicators, and the third goal, "Ensure healthy lives and promote well-being for all at all ages," has adopted suicide mortality rate as Indicator for 3.4.2.[3] Therefore, changes in suicide rates will be published as a process indicator for improving mental health in developed countries as well as in developing countries.

2. JSSC Field Study Project in Cambodia

From December 5-9, 2017, the Japan Support Centre for Suicide Countermeasures (JSSC) conducted a field study in Cambodia, as a member state of the WHO Regional Office for the Western Pacific (WPRO), as well as a collaborating center of the World Health Organization (WHOCC). The main purpose of this study was to discuss with the WHO Country Office in Cambodia and the Cambodian Ministry of Health regarding the current situation, challenges in suicide countermeasures in Cambodia as a way of exploring concrete ways for Japan to provide technical support in regard to suicide countermeasures in near future. Cambodia was selected because (1) member state of the WPRO; (2) there is much evidence of genocide of civilians under the Pol Pot regime in the second half of the 1970s, and this is still impacting people’s mental health; (3) there is no specific psychiatric hospital in Cambodia, and the development of human resources and legislation in the field of mental health is quite limited, and (4) since the transition to democracy in

1993, Cambodia has been experiencing steady economic development, and Cambodia has a good relationship with Japan.

Of the following descriptions, those without citations are based on the results of this field study.

3. Country Profile of Cambodia

Cambodia is situated on the Indochina Peninsula and borders Thailand, Laos, and Vietnam (Figure 1). The other profile of Cambodia is shown in Table 2.

Table 2. Major demographic indicators in Cambodia

Total Population （2016）	15,762 thousand
GNI per capita US $ （2015）	1,070 USD
Life expectancy （2016）	69years old
National average age （2015）	24.0years old
Under-five Mortality Rate (per 1000 live birth)	31
Total Fertility Rate （2015）	2.6
Total adult literacy rate (2011-2016)	74%
Secondary school net enrollment (2011-2016)	Boys 47% Girls 54%

Source: The States of World Children 2017

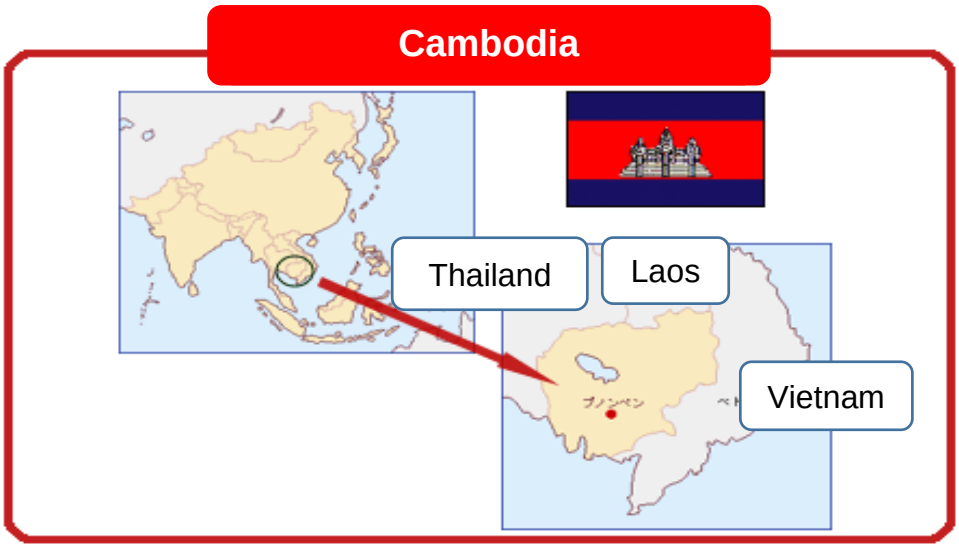

Figure 1. Location of Cambodia

The Gross National Income per capita as of 2015 was 1,070 US dollars. Cambodia transitioned from the World Bank's category of low-income economies to lower middle-income economies (1,026-4,035 US dollars) in this year. The real GDP growth maintained an annual average of 7 percent between 2011 and 2014, and its economy is steadily growing. The poverty rate,[4] which is calculated using the average monthly income as the standard, and the number of households with less than a poverty line was 34.0 percent in 2008, 22.1 percent in 2010, and 17.7 percent in 2012, which shows a declining (Figure 2).

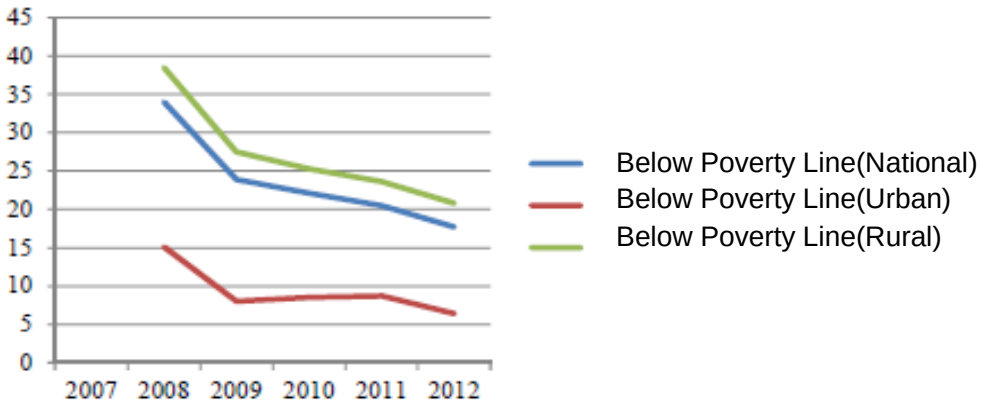

Figure 2. Trend of % of population below national poverty line（2007-2012）
Source: JICA/Global Link, Study on medical security system in Cambodia. May, 2016.
Available at http://open_jicareport.jica.go.jp/pdf/12260949.pdf.

4. The Medical System, Current Mental Health Care System, and Suicide Countermeasures in Cambodia

4-1. The medical care system and mental health in Cambodia

In Cambodia, public medical service is provided by operational health districts (OD), each one covering between 100,000 and 200,000 people, based on the health service coverage plan that started in 1995, in the post-democratization period. The plan stipulated that one OD has at least one district core hospital (also referred to as the referral hospital; it can be a provincial or district hospital) and for every 10,000-20,000 people, there was a health center, and for every 2,000-3,000 people, a health post.

Number of hospitals and health centers in Cambodia are shown in Table 3. The Health Equity Fund, a medical benefit system for the poor, does exist, however, since the patients pay all medical fees, there is no restriction on access to medical facilities. Therefore, hospitals with good health services are highly popular, attracting many patients who endure long waiting time. There are private medical insurance companies, yet the number of their members is quite limited.

Table 3. Number of Hospitals and Health Centers /Posts in Cambodia[5]

National Hospitals	8
Provincial Referral Hospitals	24
Operational District Referral Hospitals (OD)	78
Health Centers/Posts	1,049

As Cambodia does not yet have a national medical licensing system, medical doctors were educated in just a few medical schools. However, a national graduation exam system for dentists, pharmacists and nurses was introduced in 2013, and did for medical doctors in 2014. Full-time doctors are allocated to both national hospitals and provincial hospitals. Both health centers and health posts provide medical care by midwives and nurses. According to the WHO Human Resources for Health Country Profiles, CAMBODIA (2014), the total number of medical doctors in Cambodia was 2,144 (as of 2011, 0.15 per 1,000 people), that of nurses

(registered, graduate, and professional combined) was 5,389 (as of 2011, 0.38 per 1,000 people), and that of midwives was 2,053 (as of 2011, 0.15 per 1,000 people). Another data from a different year[6] also shows fewer number of medical doctors in Cambodia compared to neighboring developing countries in Asia.

Table 4. Number of Medical Doctors per 1,000 population, Suicide Mortality Rate per 100,000 population in Selected Asian Countries

Country	GNI per capita (2014, US$)	Number of Medical Doctors /1,000 population (rate)	Suicide Mortality Rate per 100,000 population (2015)[7]
Cambodia	1.020	0.168(2013)	12.8
Laos	1,660	0.179(2012)	14.0
Thailand	5,780	0.394(2010)	12.7
Myanmar	1,270	0.568(2012)	4.5
Vietnam	1.890	1.180(2013)	7.2
Japan	42,000	2.297(2012)	15.4

In particular, many doctors were killed by the Pol Pot regime or fled overseas early on. The number of doctors who specialize in mental health was particularly limited, and even after democratization. WHO's latest data[8] suggested that there were 56 psychiatrists in total, 60 including four psychiatrists who work privately and 40 nurses specializing in psychiatry (43 including those working privately); and 1,100 psychologists. According to the profile of the current status of mental health field studied by the WHO (answered by the Mental Health and Substance Abuse section of the Ministry of Health of Cambodia), Cambodia had a national plan on mental health development, it did not have a national plan regarding suicide countermeasures. In addition, while the national strategic policy plan on mental health had concrete targets that have been revised since 2013, legislation related to mental health (such as a mental health act) had not been developed. Furthermore, there are no development plans/strategies for the mental health of children and youth, which require different services for those of adults.

According to the aforementioned research report,[8] there were no medical hospital specializing in psychiatry in Cambodia as of 2016, mental illness was currently treated in the outpatient section of general hospitals. Inpatient treatment was given in regular wards. The report mentioned that there were 63 facilities that manage mental health in the outpatient section and 112 clinics that were not hospitals, including private facilities. There was only one facility in Cambodia that provides mental health care for children and youth. The report identified that approximately 11,000 patients with serious mental illness in Cambodia. The number of hospitalized patients with mental illness in the regular ward admitted by law was reported to be zero, but there were 235 hospitalized patients with mental illness in normal wards. The total annual government budget spent on mental health is about 300 million riels (about 74,300 US dollars or about 8 million yen, as of 2016), which only accounts for 0.02 percent of the government spending on health. Since there is no hospital or ward specializing in mental illness, the majority of government budget was spent for training. The report stated that in a very limited number of cases, the government provides financial support for patients with serious mental illness; this appears to be extremely rare in reality. Currently available data on mental health were from the government, information from the private sector was not sufficiently reported. Data on the number of suicides, which is important data in the mental health field, were provided by the national police agency, as seen in Figure 3; however, the reality of suicide in the country as a whole was not known in detail.

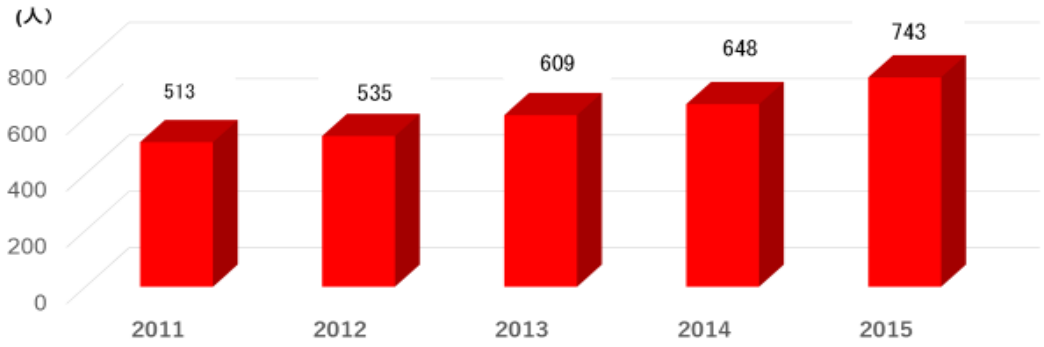

Figure 3. Trend of annual number of suicide in Cambodia (2011-2015)

4-2 Genocide in the Pol Pot regime

When discussing mental health and suicide countermeasures in Cambodia, it must be noted that there was a grisly civil war that lasted for more than twenty years in the 1970s that led to the mass killing of innocent citizens by the Pol Pot regime (Khmer Rouge); much of this was committed between 1974 and 1979. The total population at that time was around eight million, and the regime killed between two and three million citizens. Because under the Pol Pot regime, the massacres were often initiated by family members and relatives informing on each other, it has been alleged that even today, there is a lack of trust among Cambodians. Many citizens refuse to provide personal information to anybody. Although about forty years have passed, because of the massacre, torture, and witness of family members and relatives being killed, many Cambodians are said to have deep psychological scars.[9] Consequently, there are private organizations such as Transcultural Psychosocial Organization(TPO) Cambodia that focus on providing mental healthcare to the residents or Suppoeters for Mental Health(SUMH) that Japanese psychiatrists play a central role for residents.

A doctor, working at a hospital in Phnom Penh, had an experience of losing family in a cruel manner when he was 10 and forced to move to the countryside, reaching Prey Veng Province after a three-month trek with his family. He saw numerous bodies by the road or in the river. In order to survive, he had to drink from the river where the bodies had been piled up. Although the Pol Pot regime collapsed in 1979, the civil war in Cambodia continued until 1993. After becoming qualified as a junior doctor, He was drafted as a government employee and sent to the front line for six months at a time. He put on a combat uniform and took up a gun. He spent days and night tending to patients who had been wounded by gunshot or landmines. It was a desperate situation of “landmines in front of me, and remnants of the Pol Pot army behind me, and I had to choose between them.” He also witnessed many local residents dying of malaria who had been ordered to clear away the forest.[10]

4-3 Trends of suicide and suicide countermeasures in Cambodia

Based on our interview in TPO,[11] it is pointed out that “many people carry deep psychological scars” in Cambodia, where people experienced a large-scale massacre of civilians by the regime in the 1970s as discussed above. The correlation was not statistically identified, but the age-adjusted suicide rate per 100,000 people in Cambodia was 12.8, which is higher than the means of the figures from the WPRO member states (11 member states) at 9.11 (Table 5), while the suicide rate of the Philippines was the lowest, at 3.8 (as of 2015). Additionally, in April 2017, the Ministry of

Health and WHO Country Office in Cambodia announced that approximately 4 million people in Cambodia were estimated to be suffering from depression.[12]

Table 5. Suicide mortality rate per 100,000 population by WPRO member countries (2015) (Age-Standardized suicide rates per 100,000 population, 2015)

country	Suicide mortality rate per 100,000 population (2015)
Regional Average	9.11
Korea	24.1
Mongolia	28.1
Japan	15.4
Laos	14.0
Cambodia	12.8
Vietnam	7.2
Malaysia	6.5
Philippines	3.8

Source：http://apps.who.int/gho/data/node.main.MHSUICIDEASDR?lang=en

Focusing on the relationship between the suicide rate (age-adjusted suicide rate per 100,000 people) of selected Asian countries, including Cambodia, it is found that no negative correlation between suicide rate and the number of doctors or the economic status (as annual GNI per capita). Among Cambodia, Laos, Vietnam, and Japan (WPRO member states), Japan shows the highest suicide rate (Table 5), which has the largest number of doctors (Table 4); therefore, a small number of doctors does not always correlate with a high suicide rate.

5. Japan's Possible Assistance to Cambodia Regarding Suicide Prevention Policy-Making

Based on the discussion in Cambodia, we will sum up some challenges in suicide countermeasures in Cambodia. Currently, the priority that is given to the mental health field in Cambodia is lower than infectious diseases, or maternal and child health field. Budget on mental health is extremely small (74,300 US dollars, 2016). Another characteristic is its suicide rate at 12.8 per 100,000 people (age-adjusted, 2015), which is higher than in neighboring Asian countries (Table 5).

Japan, a fellow WPRO member state and a country that played a certain role in the democratization of Cambodia in the 1990s, should provide technical assistance for the improvement of the health and medical care system in Cambodia; in particular, Japan can offer support for suicide countermeasures, building a statistical system and establishing a suicide reporting system. It can also provide support for building a base for specialized mental health medicine. Furthermore, Japan can provide training by accepting trainees, hold international symposium or organize participatory training in Cambodia for various measures to prevent suicide.

Competing Interests
The authors declare that they have no competing interests.

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