



SPECIAL SESSION: SUICIDE IN ROAD TRAFFIC

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GENERAL DESCRIPTION

During the period 2012-2016 a total of 1456 persons were killed in Swedish road traffic, natural deaths excluded. 143 of these fatalities were classified as suicides. This means that 10 percent (143 of 1456) of the road traffic fatalities were suicides. This has been established by using a method for suicide and accident classification that has been developed by The Swedish Transport Administration, The Swedish Transport Agency and The National Board of Forensic Medicine.

In September 2016 the Swedish government presented a new launch of the Vision Zero. The government stated that suicides in the traffic system is a problem that has to be addressed within the traffic safety work. Preventive measures in order to reduce all fatalities in road traffic, intentional or accidental, is in line with the Vision Zero.

In Korea 4621 persons were killed in road crashes in 2015. How many of these fatalities that in fact were hidden suicides are somewhat uncertain. However Korea is the country with the highest suicide rate among members of the Organization for Economic Cooperation and Development (OECD). According to OECD statistic, 28.7 suicides per 100000 inhabitants occurred in 2013. This can be compared with 12.3 suicides per 100000 inhabitants in Sweden.

A special session will discuss suicide in road traffic. Four speakers will present topics regarding suicide and suicide in road traffic in Korea and Sweden. The session will include information on how suicide in road traffic can be assessed and what can be done to prevent these fatalities. Each presentation should be 15 minutes followed by 3 minutes of question and answer. This will allow for a discussion at the end of the session that can be approximately 15 minutes.

The titles of the presentations and a brief description are listed below.

1. THE OVERALL SUICIDE PROBLEM IN KOREA

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A presentation of the overall suicide situation in Korea will be made by Jong-Woo Paik, professor of the department of neuropsychiatry in Kyung Hee University and General Secretary of Korea Association for Suicide Prevention.



2. SUICIDE IN TRAFFIC IN KOREA INCLUDING CLASSIFICATION METHOD

Mr. Seokmin Lee
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Statistics Korea has published an annual report on the cause of death statistics of the Korean population since 1982. Statistics Korea will give a talk on suicide in Korean traffic including classification method. For more information, see abstract: "Suicide in Traffic in Korea including classification method" on page 4 of this document.

3. SUICIDE AND ACCIDENT CLASSIFICATION METHOD USED IN SWEDEN

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Since 2010 Sweden has been presenting statistics on suicides in road traffic separately from that on fatalities caused by accidents. To undertake this, a method has been developed for classification of road traffic fatalities in order to determine if the fatality was caused by an accident or by a suicide. For more information, see abstract nr 180: "Suicide and accident classification methodology".

4. ANALYSIS OF SUICIDES IN ROAD TRAFFIC IN SWEDEN 2010-2016

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Descriptive and comparative analyses between suicides and fatalities due to accidents 2010-2016 have been carried out. The objective has been to find suitable measures in order to reduce the number of suicides in road traffic. For more information, see abstract nr 179: "Analysis of suicides in road traffic in Sweden 2010-2015".



SUICIDE IN TRAFFIC IN KOREA INCLUDING CLASSIFICATION METHOD

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1. INTRODUCTION

Statistics Korea has published an annual report on the cause of death statistics of the Korean population since 1982. These statistics are important because they can provide key information for national demographic and health care policies by identifying the numbers, causes, and geographical distribution of deaths. This article presents the recent trends and statistical indicators related to suicide in road traffic.

5. METHODS

In order to make the cause of death statistics, Statistics Korea collects data from death certificates issued for deaths filed in local administration offices. When death occurs, family should submit the death report form with medical death certificate issued by physicians to local offices. In order to compare the data internationally, the underlying causes of death were classified according to the International Statistical Classification of Diseases and Related Health Problems, 10th revision(ICD-10), as recommended by WHO, as well as the KCD-6 (Korean Standard Classification of Diseases and Causes of Death), which has been modified to fit circumstances in Korea. In the ICD-10 code, X81 and X82 code cover the suicide in road traffic.

X81	Intentional self-harm by jumping or lying before moving object
X82	Intentional self-harm by crashing of motor vehicle Includes: intentional collision with: Train Motor vehicle Streetcar, tram

However, it is possible that some death certificates are incorrectly written, especially external cause of death. In order to classify underlying cause of death more accurately, Statistics Korea collects and links the following 22 kinds of administrative data; health insurance data from National Health Insurance Service; criminal investigation records and traffic accident investigation data from National Police Agency; autopsy records from National Forensic Service; emergency records from National Emergency Medical Center, etc. In regard to analyzing suicide in road traffic, medical death certificate as well as criminal investigation record and traffic accident investigation data is mainly used.

6. RESULTS

The total number of deaths due to suicide in 2016 was 13,092, which was a decrease of 421(-3.1%) from 2015. The suicide rate (number of deaths per 100,000 population) was 25.6. The number of deaths and mortality rate have continually decreased from 2011.

The number of deaths classified X81 and X82 as underlying cause of death in 2016 was 25 and showed a decreasing trend from 2007(Figure 1).

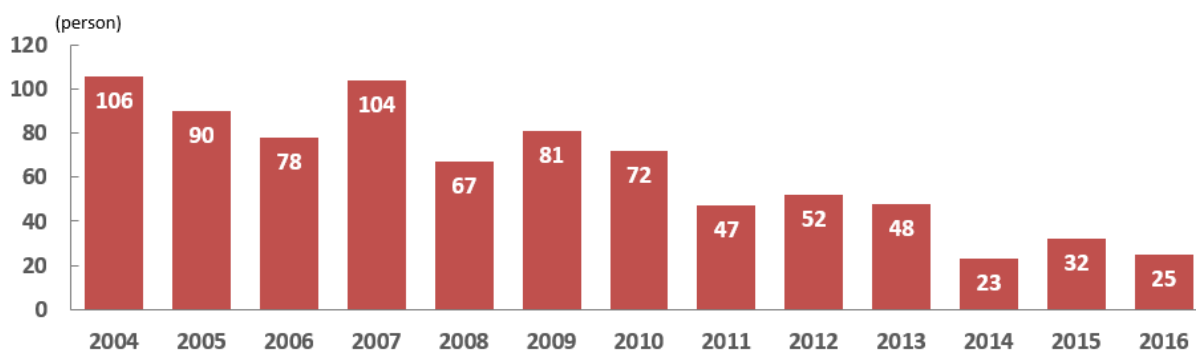


Figure 1: Trends in the number of deaths classified X81 and X82 from 2004 to 2016 base on cause of death statistics from Korean

Most of the death classified as X81 and X82 in Korea is related to railway accidents. So, Korean government has installed screen door at subway platform from October 2005. In this reason, the number of deaths has continually decreased.

Among the death classified as X81 and X82, 1 fatality died due to suicide in road traffic in 2016 and 2 fatalities in 2015. Statistics Korea could identify 2 deaths as suicide in road traffic among 32 in 2015 and 1 among 25 in 2016 through the automated mortality data system analyzing death certificate with administrative data of National Police Agency and National Forensic Service together.

Table 2: Result of the suicide in road traffic in Korea

Year	Sex	Age	Place	Detailed information	Motive for a suicide
2015	F	52	Intersection	The fatality jumped from the passenger seat and injured her head in collision with other vehicle.	2 years' struggle against cancer
	F	58	Street	The fatality fell from the passenger seat and injured her head.	Stress from rural life and depressive disorder
2016	M	48	Farm road	After addiction of cyanides, the fatality injured in collision with the parked vehicle.	Family trouble and debt problem

The suicide in road traffic is not common in Korea comparing to other suicide methods. The deaths due to suicide in Korea tend to consider some points when they choose the method of suicide; least damage of a dead body; least pain; end up successful without sequela; no harm to others. In this sense, it is not easy to choose a traffic accident as a suicide method.

Table 2: Comparison with suicide method



	Suicide method				
	Hanging	Fall	Poisoning	Burning	Traffic accident
Damage of a dead body	L	H	L	H	H
Pain	M	L	M	H	H
End up unsuccessful (with sequelae)	L	L	H	H	H
Harm to others	L	L	L	M	H

* L: Low, M: Moderate, H: high

7. CONCLUSION

The study can conclude that there are few suicide in road traffic according to cause of death statistics in Korea. Such findings are evidence of the pattern to choose the method of suicide. However, in order to analysis more accurately, the definition of suicide in road traffic needs to be clarified. In some cases, it is hard to make a decision whether the suicide is in road traffic or not. For example, 2 fatalities died in 2016 due to fall from dam using motor vehicle. In these case, underlying cause of death could be classified intentional self-harm by drowning and submersion(X71). In addition to, ICD-10 code need to add some extension code in order to classify a suicide in road traffic. To prevent suicide in road traffic, Statistics Korea will conduct continuously follow-up study.

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