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Integration Approach WHO VIP and UN DRR with Safety Inequality Analysis

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Safety Inequality

The nature of injuries and violence varies considerably according to age, sex, region and income group(WHO,2014:7). Even within countries, injuries show strong social class gradients.

This means that people from poorer economic backgrounds have higher rates of death from injury and non-fatal injuries than wealthier people.

As well as being at increased risk, disadvantaged families are hardest hit by the financial pressure resulting from injuries. Poor families are less likely to have the financial resources to pay the direct costs (e.g. medical bills) as well as the indirect costs (e.g. lost wages) related to injuries (WHO,2014:10).

Social class gradients are present in injury deaths rates (e.g. a correlation coefficient between death due to accidents and social deprivation $r = 0.56$ and a 17 times higher homicide rate in social class V vs. I in England, 1980–1984 and 1980–1995 respectively).

Of note, the five basic social classes recognized by Office of Population Censuses and Surveys are described as follows: I Professional occupations; II Managerial and technical occupations; III Skilled occupations; IV Partly – skilled occupations and V Unskilled occupations

Alexandrescu et al.(2009). *BMC Public Health* **9**:226

Whereas a straightforward inverse association between injury death rates and socio-economic status(SES) has been observed from the literature review, the evidence for socioeconomic inequalities and injury morbidity has not been wholly consistent.

For fatal injuries socioeconomic gradients or inverse association with SES have been shown in descriptive studies of childhood injuries. For non-fatal injuries results vary from presenting no relationship to associations of injury requiring hospitalisation and/or A&E visits with SES(Alexandrescu et al., 2009: 20)

Scope and Purpose

The present Framework will apply to the risk of small-scale and large-scale, frequent and infrequent, sudden and slow-onset disasters caused by **natural or man-made hazards**, as well as related environmental, technological and biological hazards and risks.

It aims to guide the multihazard management of disaster risk in development at all levels as well as within and across all sectors(Sendai Framework for Disaster Risk Reduction **2015-2030** : 11).

WHO VIP: Violence and Injury Prevention

Focusing on man made hazards:

WHO highlights that more than 5 million people die each year as a result of injuries, resulting from acts of violence against oneself or others, road traffic crashes, burns, drowning, falls, and poisonings, among other causes. Injuries account for 9% of the world's deaths (https://www.who.int/violence_injury_prevention/media/news/2015/Injury_violence_facts_2014/en/)

- Violence:

Child maltreatment, Elder abuse, Violence against women, Youth violence, Violence against children

- Unintentional injuries:

Animal bites, Burns, Child injury prevention, Drowning, Falls, Road traffic injuries

.ISCCC: international safe community : 7guides

The seven indicators a community must fulfill to become an International Safe Community are:

1. An **infrastructure based on partnership and collaborations**, governed by a cross- sector group that is responsible for safety promotion in their community
2. **Long-term, sustainable** programs covering genders and all ages, environments, and situations
3. Programs that target **high-risk groups** and environments, and programs that promote safety for vulnerable groups
4. Programs that are based on the **available evidence**
5. Programs that document the **frequency and causes of injuries**
6. **Evaluation measures** to assess their programs, processes and the effects of change
7. On-going **participation** in national and international Safe Communities networks

<https://isccc.global/indicators-that-must-be-fulfilled>

.Local policy : international safe community

- Korea : 16(3) [Asan City](#), [Busan Metropolitan](#), [Changwon](#), [Cheonan](#), [Gangbuk](#), [Gumi](#), [Gwacheon City](#), [Gwangju City](#), [Gwangju Metropolitan City](#), [Jeju](#), [Jeonju](#), [Nam-gu](#), [Ulsan Metropolitan City](#), [Pyeongtaek City](#), [Samcheok City](#), [Sejong](#), [Songpa](#), [Suncheon City](#), [Suwon](#), [Wonju](#)
- Japan : 15 [Atsugi](#), [Chichibu](#), [Izumitsu](#), [Kagoshima](#), [Kameoka](#), [Kitamoto](#), [Koka](#), [Komoro](#), [Koriyama](#), [Kurume City](#), [Matsubara City](#), [Minowa](#), [Sakae Ward](#), [Yokohama City](#), [Toshima City](#), [Tokyo](#), [Towada City](#)

- **UNDRR:**

.Sendai framework 4priority

Priority 1: **Understanding** disaster risk

Priority 2: Strengthening disaster risk **governance** to manage disaster risk

Priority 3: **Investing** in disaster risk reduction for resilience

Priority 4: Enhancing disaster **preparedness** for effective response and to "Build Back Better" in recovery, rehabilitation and reconstruction

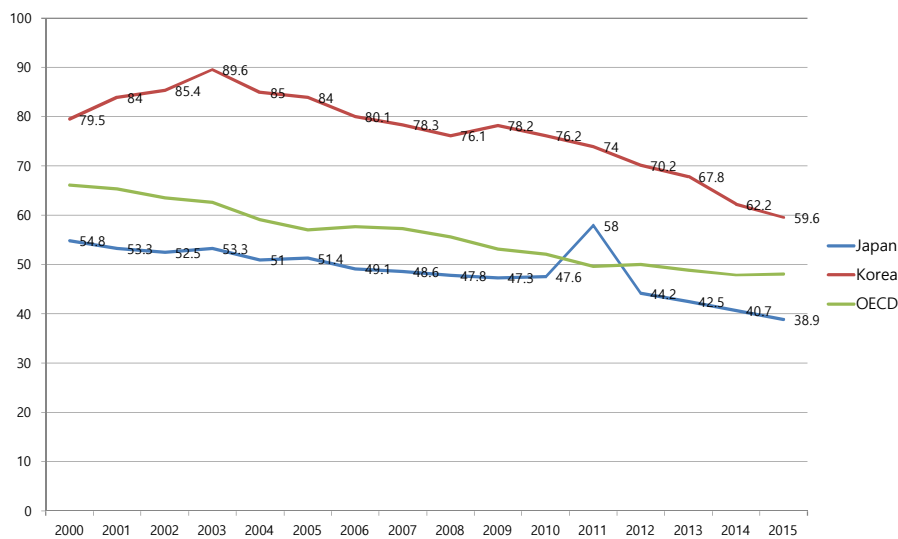
4,307cities are participating

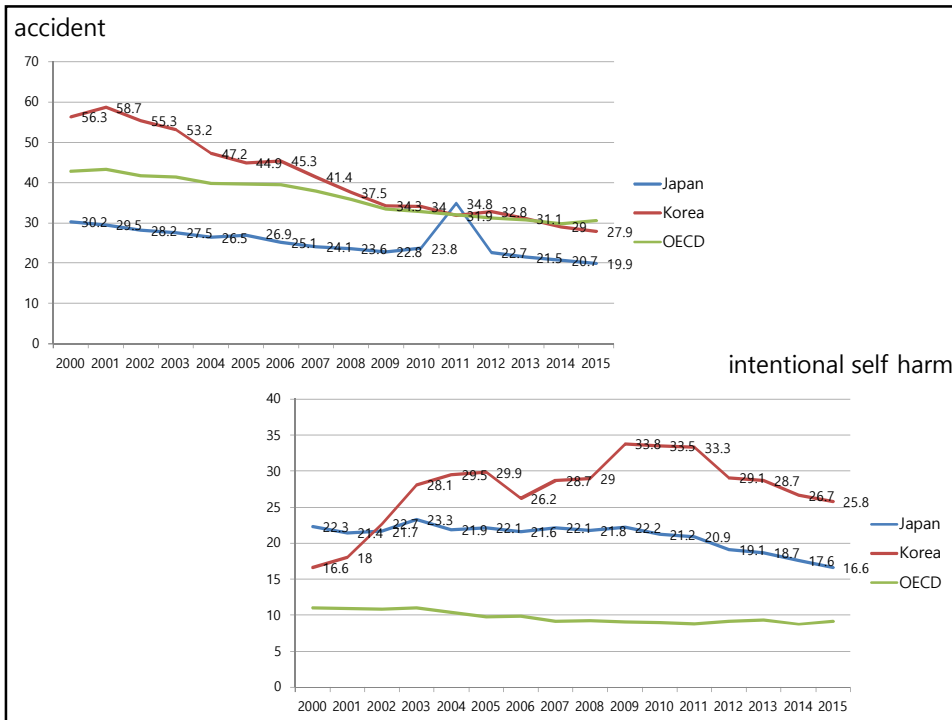
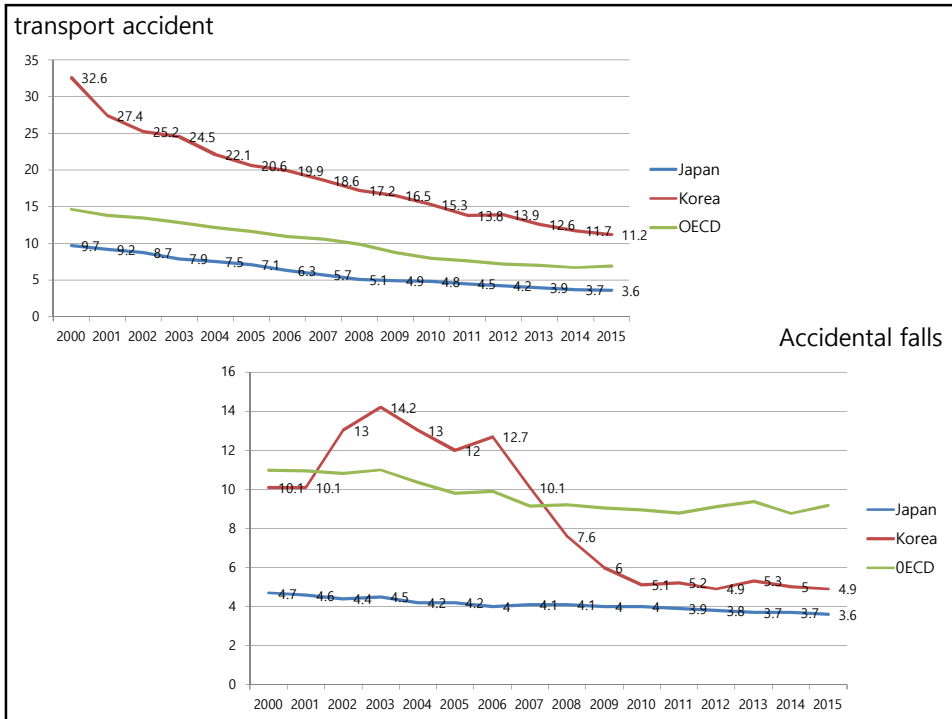
During 2017-2018, 214 cities/municipalities from Asia (88), Americas (50), Sub-Saharan Africa (50), and Arab States (26) conducted the Scorecard assessment as part of the initiative "Making Cities Sustainable and Resilient: Implementation of the Sendai Framework for Disaster Risk Reduction 2015-2030 at the Local Level

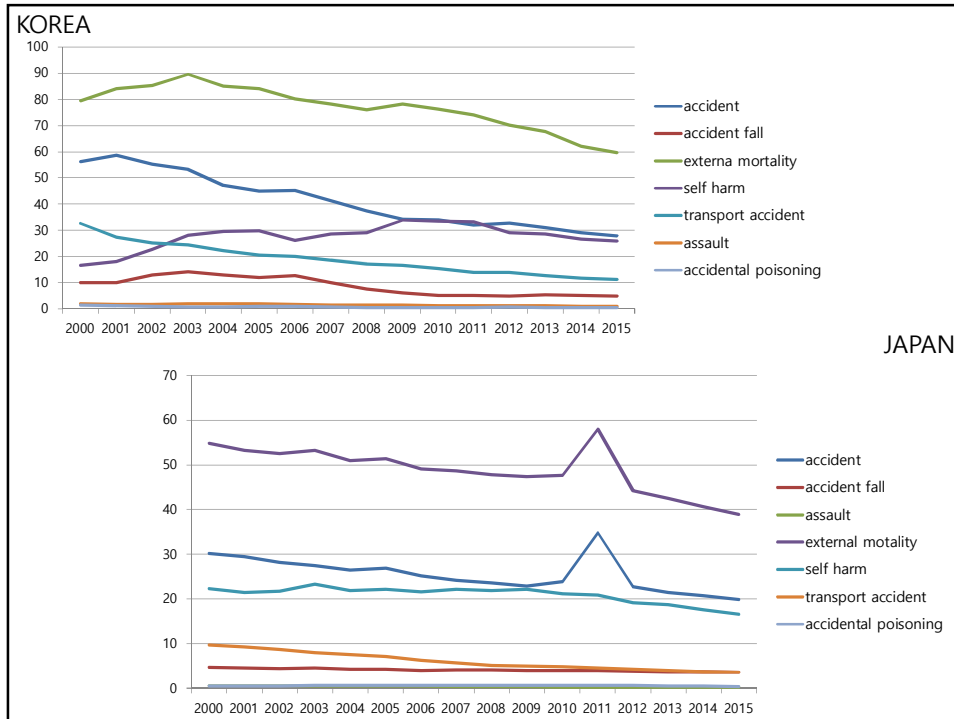
.Local policy : Making Cities Resilient Campaign, role model city

45 role model cities(2015): Sendai, Hyogo(Japan)

External cause of Mortality Deaths per 100,000 population (standardised rates):
OECD







Safety Inequality Analysis (2018national health & nutrition data, Korea)

SES	Transport accident	fall./slip down	collision	total
	OR(95%CI)	OR(95%CI)	OR(95%CI)	OR(95%CI)
sex [†]	1.35(0.90-2.03)	0.66(0.48-0.90)*	1.70(1.13-2.55)*	1.08(0.90-1.30)
age ^{††}				
1-18	1.00	1.00	1.00	1.00
19-44	4.20(1.87-9.40)***	0.30(0.18-0.50)***	0.56(0.33-0.95)*	0.78(0.60-1.02)
45-64	2.80(1.22-6.42)*	0.58(0.39-0.87)**	0.60(0.36-1.00)*	0.88(0.68-1.13)
65+	2.58(1.07-6.19)*	1.05(0.71-1.56)	0.33(0.17-0.67)**	0.95(0.72-1.26)
Among old age				
65-69	1.00	1.00	1.00	1.00
70-74	0.22(0.49-1.01)	1.17(0.56-2.46)	0.62(0.11-3.42)	0.86(0.52-1.43)
75-79	0.25(0.05-1.13)	1.22(0.57-2.59)	0.69(0.12-3.82)	0.68(0.39-1.18)
80+	0.49(0.13-1.80)	1.50(0.69-3.25)	1.39(0.30-6.25)	0.91(0.52-1.60)

*P<.05, **P<.01 ***P<.001
 Age1-18 infant and adolescent, 19-44 pre adult, 45-64 post adult, 65+ old person

Income [‡]	Transport accident	fall/slip down	collision	total
I	1.00	1.00	1.00	1.00
II	0.99(0.59–1.66)	1.03(0.67–1.57)	0.81(0.47–1.41)	0.91(0.71–1.16)
III	0.86(0.49–1.50)	1.19(0.78–1.81)	1.27(0.76–2.11)	1.09(0.85–1.39)
IV	0.73(0.38–1.42)	1.53(0.98–2.37)	0.82(0.43–1.56)	1.04(0.79–1.37)
Basic allowance, education	1.53(0.79–2.97)	1.69(1.05–2.71)*	1.14(0.55–2.36)	1.23(0.89–1.71)
College	1.00	1.00	1.00	1.00
High school	0.90(0.54–1.50)	1.39(0.84–2.27)	1.28(0.70–2.33)	1.23(0.95–1.60)
Middle school	0.78(0.38–1.58)	1.94(1.10–3.42)*	1.31(0.61–2.80)	1.44(1.04–1.98)*
Elementary	0.57(0.34–0.98)*	2.62(1.72–3.98)***	1.87(1.10–3.15)*	1.46(1.15–1.85)**

Average monthly income household; I high(3million+), II middle high(2m-3m), III middle low(1m-2m), IV low(-100m)

Occupation [§]	Transport accident	fall/slip down	collision	total
I	1.00	1.00	1.00	1.00
II	1.60(0.82–3.12)	2.82(1.31–6.05)**	1.53(0.71–3.33)	1.68(1.15–2.45)**
III	1.50(0.79–2.84)	1.75(0.78–3.93)	1.20(0.55–2.60)	1.69(1.19–2.41)**
IV	0.97(0.41–2.30)	3.22(1.46–7.12)**	0.73(0.24–2.19)	1.35(0.87–2.10)
V	0.76(0.42–1.35)	3.74(2.02–6.91)***	0.96(0.51–1.80)	1.62(1.22–2.16)**

I Professional and Managerial occupations; II Service and technical occupations; III Skilled occupations; IV Partly – skilled and Unskilled occupations; V unemployed

Gender in disaster

- Mayumi SAKAMOTO(2019. 10. 9. JICA)

. Death male 136/female 274(female66%)

. Earthquake occurred just before lunch time, female who were preparing lunch suffered in sudden earthquake

city	male	female
豊岡	46	41
八条		2
新田	1	
三江		1
田鶴野	4	4
五壯	2	2
内川	3	8
城崎	78	194
港	2	22
total	136	274

Integration WHO VIP and UN DRR in Korea

▶ National government sets 7safety indicators as a tool for grant allocation to local

① transport accident

② fire

③ crime(assault)

④ accidents

⑤ intentional self harm

⑥ infection disease

⑦ natural disaster

WHO VIP

UN DRR

▶ Local governments act and get a safety promotion and funds

-mortality (transport+fire+suicide+infect) : ('16) 20,128 → ('17) 19,129(△999)

-incident(fire+crime+accident) : ('16) 722,421 → ('17)93,892(△28,529)

-No evidence and data enough to review the performance for the disadvantaged in safety.

THANK YOU