



# A comparative study on the regulations regarding driving with dementia

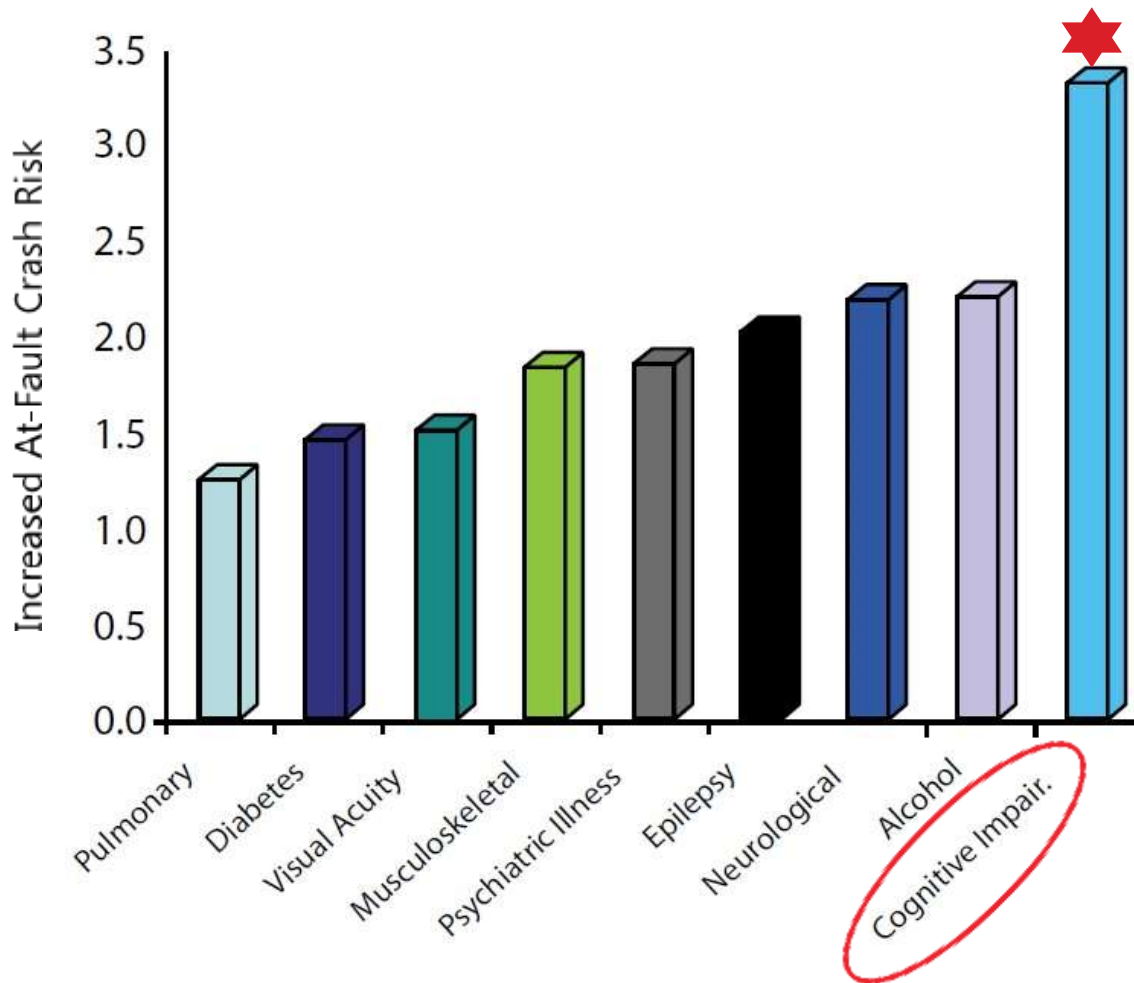
---

**Bin-Na Kim**

National Institute of Dementia

Republic of Korea

# Background

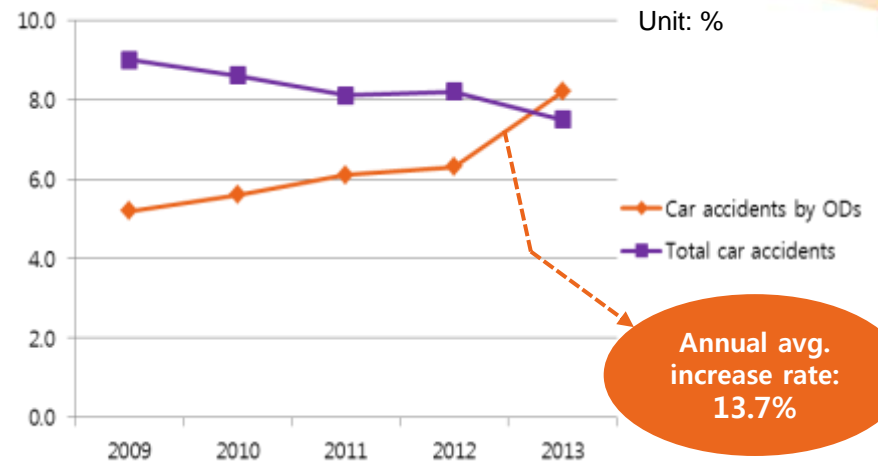
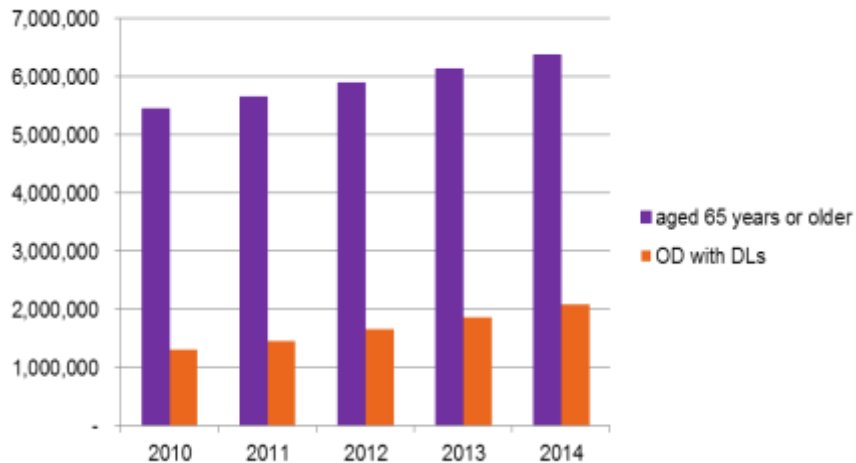


Comparing at-fault crashes for 8 common medical conditions & alcohol impairment

**Cognitive impairment** increased at-fault crashes more than other factors

- Source: Kristalovich, Lisa. Dementia and driving: From diagnosis to driving cessation and beyond. Occupational Therapy Now. 2010;12(5):20-22.

# Background: Republic of Korea



\* Source: The Road Traffic Authority, Republic of Korea

- As increasing older drivers (ODs), car accidents by ODs are also increasing.
- As increasing aged 65 years or older, the dementia prevalence are continuously increasing.
- Car accidents by drivers with dementia (DWDs) are projected to increase accident risk.

# Methods

To find key implications in developing or optimizing national strategies for regulating DL of OD and DWD

## Period

2014.10 – 2015.04

- Conducted a survey on national DL regulations for OD and DWD

## Targets

G7 + 3 Asia-Pacific countries

- US, Canada, UK, Germany, France, Italy, Australia, Japan, China, South Korea
- Where dementia is a national health priority

## Methods

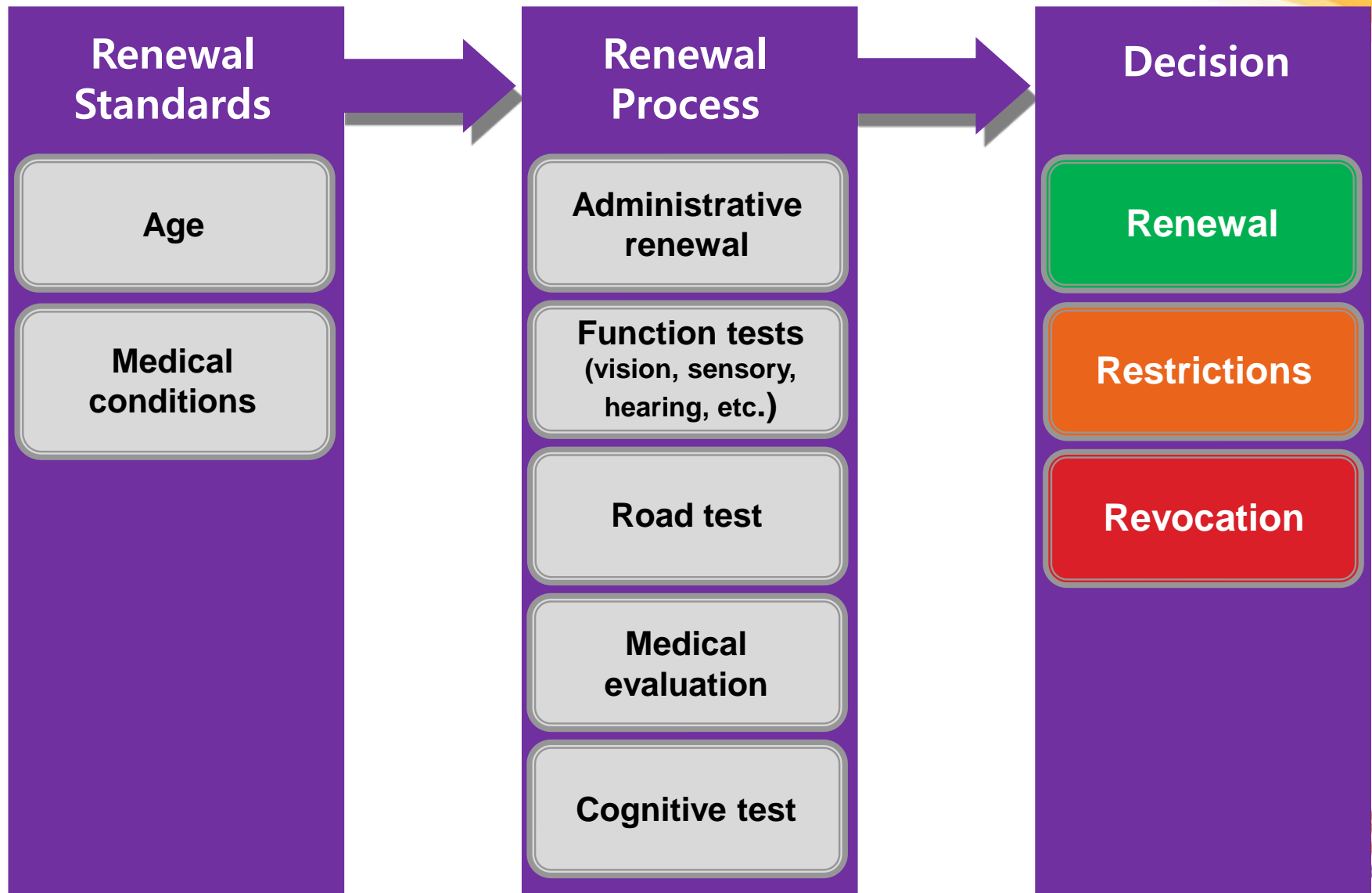
Review & comparison of official documents

- Reviewed about 60 official documents, websites, and research papers
- Compared regulations and processes by 4 frameworks below

## Frameworks

1. Legal basis for regulating DLs of OD & DWD
2. Processes for renewing DL of OD & DWD
3. Assessments required for renewing DL of OD & DWD
4. Decision processes of driving privilege of DWD

# Results: Flow of renewing DLs



# Legal basis for regulating DLs of ODs & DWDs

Country	Legal Authorities	Legal Basis
US	1.Federal: National Highway Traffic Safety Administration 2.Territorial: Department of Motor Vehicles	1.Federal: Transportation Equity Act for the 21st Century 2.Territorial: Vehicle Code
Canada	1.Federal: Canadian Council of Motor Transport Admin. 2.Territorial: vary by territories	1.Federal: National Safety Code 2.Territorial: Highway Traffic Acts
Australia	1.Federal: Austroads & National Transport Commission 2.Territorial: vary by territories	1.Federal: Australian Road Rules (National Transport Commission Act) 2.Territorial: Provincial Traffic Acts
UK	Driver and Vehicle Licensing Agency	1.The Road Traffic Act 2.Motor Vehicles Regulation 3.3rd European Commission(EC) Directive on DL
Germany	1.Federal Motor Transport Authority 2.Driving License Division	1.Road Traffic Act 2.Road Traffic Regulations 3.Driving License Ordinance
France	General Police Directorate License Office	1.Highway Code article R226-1, L 223-52. Article 7, Decree of 31/07/2012 2.EU Directive 91/439/EC
Italy	1.Department of Land Transport 2.Provincial Office of Motor Vehicles 3.Azienda Sanitaria Locale (ASL)	1.New Highway Code 2.Decree of the Ministry of Transport
Japan	1.Metropolitan Police Department 2.Driver License Center	1.Road Traffic Act 2.Health Insurance Law
China	Ministry of Public Security	1.Law of the PRC on Road Traffic Safety 2.PRC Administrative Licensing Law and the Regulations
South Korea	1.Korean National Police Agency, Traffic Bureau 2.Korea Road Traffic Authority	Road Traffic Act

# Renewal cycle of DLs of ODs

Country	Commencement Age	Renewal Cycle
Germany	None	None
France	None	15 years for all ages
UK	≥ 70 years	3 years
Italy	≥ 50 years	50 ~ 70: 5 years 70 ~ 80: 3 years ≥ 80: 2 years
US	65 ~ 85 years	2 ~ 6 years
Canada	65 ~ 80 years	3 ~ 5 years
Australia	70 ~ 85 years	1 ~ 2 years
Japan	≥ 70 years	3 years
South Korea	≥ 65 years	5 years
China	60 ~ 69 years	1 year



# Evaluation for renewing DLs of ODs & DWDs

Country	Assessments					Guidelines for medical evaluation
	Administrative	Functional tests	Road test	Medical evaluation	Cognitive test	
US	●	●	●	●	⊙	●
Canada	●	●	●	●	●	●
Australia	●	●	●	●	X	●
UK	●	●	●	●	●	●
Italy	●	●	X	●	●	●
Japan	●	●	X	●	●	●
China	●	●	X	●	X	X
South Korea	●	●	X	X	X	X
Germany	X	X	X	X	X	●
France	●	X	X	X	X	●

- : Implementation
- ⊙: Varied by states



# Evaluation: Duty of report

Country	Duty of report			
	Physician report		Self-report	
	With consent	Without consent	Self-declaration	Self-report with medical certificates by physicians
US	X	◐	◐	X
Canada	X	●	◐	X
Australia	X	○	●	X
UK	◐	○	●	X
France	◐	X	X	X
Italy	X	X	X	●
Japan	X	X	X	●
China	X	X	●	X
South Korea	X	X	●	X
Germany	X	○	X	X

- : Mandatory
- ◐: Varied by the states
- ◑: Voluntary with patients' consent
- : On behalf of patients if DWDs do not follow the physician's notification

# Decision of driving privilege of DWDs

Country	Mild dementia			Advanced dementia
	Restrictions	Follow-up	Revocation	Revocation
US	●	●	X	●
Canada	●			●
Australia	●			●
UK	●			●
Germany	X			●
France	X		X	●
Italy	X	X	X	●
South Korea	X	X	X	●
Japan	X	X	●	●
China	X	X	●	●

No nighttime driving,  
no freeway driving,  
or restriction of  
driving area,  
conditional DLs

- When PWD with revoked DLs drive cars, their automobile insurances could be invalidated in UK, Australia, Germany, Italy, France.

# Privileges of DWDs to stop driving

- Drivers who experience deterioration of driving skills have been encouraged to voluntarily return DLs.
- OD aged over 75 years should display the Kōreisha mark on both the front and rear of the car (to indicate “aged person at the wheel”).

Reinforcing self-actions

Japan

Intensifying incentives

For the motility needs of DWDs,  
public transportation benefits may be offered.

- Ridership discounts
- Discounts or free admission to cultural facilities, etc.

To alleviate inconvenience of motility,  
assistive incentives system should be developed.

# Conclusion

**1<sup>st</sup>**

A safety driving management system for DWDs should be promoted by optimizing renewal cycle.

**2<sup>nd</sup>**

To be balanced both the safety of the public and the rights of DWDs, a reasonable evaluation system and multi-stages actions should be developed.

**3<sup>rd</sup>**

Education programs should be developed to increase public awareness of driving safety of ODs and DWDs.

Thank you!

E-mail for more questions: [bonnie822@nid.or.kr](mailto:bonnie822@nid.or.kr)