# Non-restorative sleep and insomnia in Korea

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## Aims

- To determine the prevalence of insomnia symptoms in the Korean general population
- To examine their evolution in the general population between 2001 and 2008

## Methods

#### Sample:

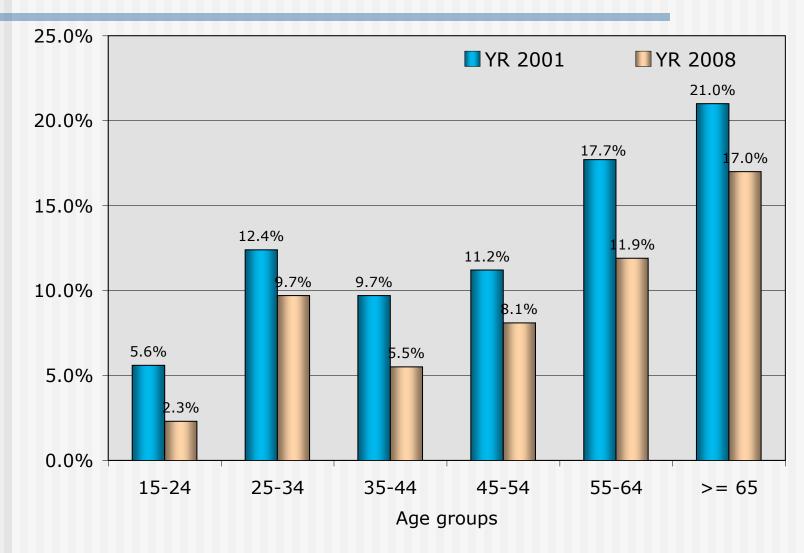
- 2001: 3,719 individuals ≥ 15 y.o.
- 2008: 2,537 individuals ≥ 15 y.o.
- representative of South Korea (37.4 M)
- Design: cross-sectional telephone inquiry
- Administration: Lay interviewers using Sleep-EVAL System

## Measures

#### Sleep questionnaire

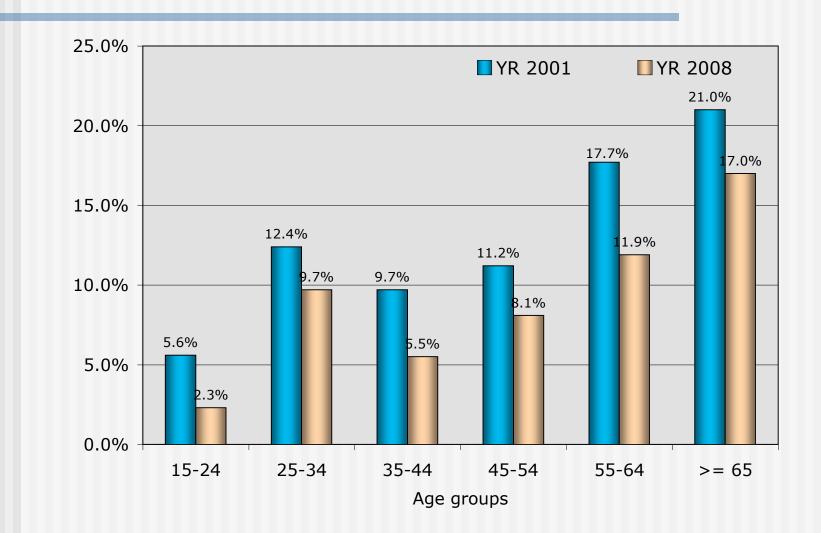
- Sleep-EVAL diagnoses (DSM-IV and ICSD)
- Past and current history of organic diseases

#### **Difficulty initiating sleep**



- Overall, prevalence of DIS was significantly higher in 2001
  - 2001: 4.1%
  - 2008: 2.3%
- Significant decrease were observed in
  - 15-24 y.o.
  - 55-64 y.o.

#### Nocturnal awakenings

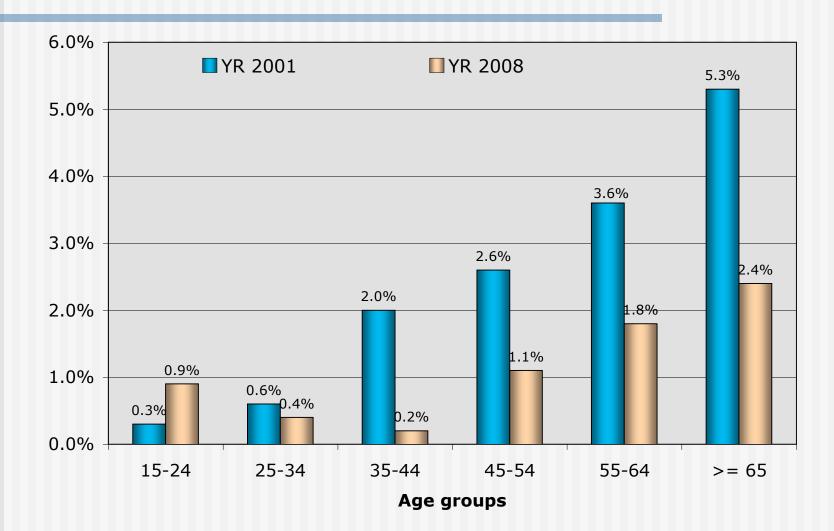


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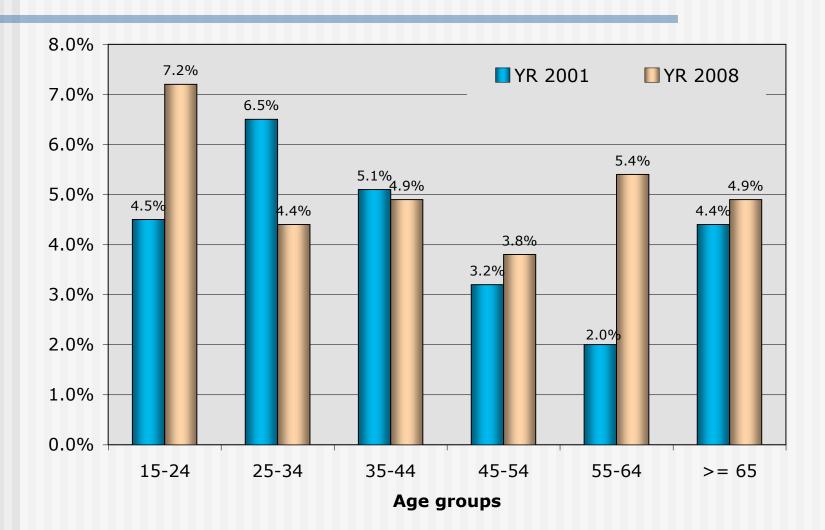
- Overall, prevalence of nocturnal awakenings was significantly higher in 2001
  - 2001: 11.8%
  - 2008: 8.3%
- Significant differences were observed in
  - 35-44 y.o.
  - 45-54 y.o.
  - 55-64 y.o.

#### Early morning awakening



- Overall, prevalence of EMA was significantly higher in 2001
  - 2001: 1.9%
  - 2008: 1.0%
- Significant differences were observed in
  - 35-44 y.o.
  - 45-54 y.o.
  - 55-64 y.o.

#### Nonrestorative sleep



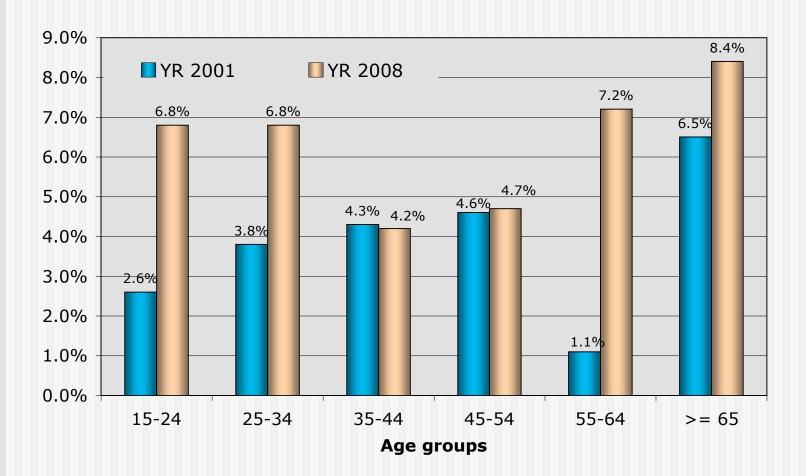
#### Overall prevalence of NRS was similar:

- 2001: 4.8%
- 2008: 5.1%

#### Significant differences were observed in

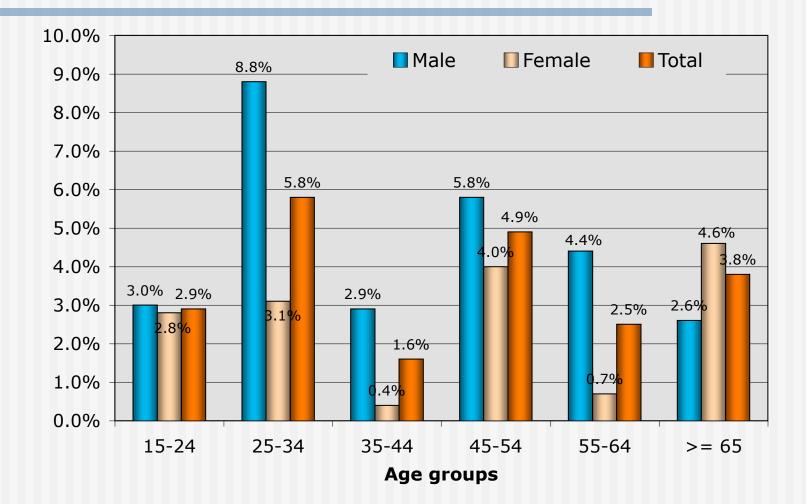
- 15-24 y.o.
- 55-64 y.o.

## **Global sleep dissatisfaction**



- Overall, prevalence of GSD was significantly higher in 2008
  - 2001: 3.7%
  - 2008: 6.1%
- Significant differences were observed in
  - 15-24 y.o.
  - 25-34 y.o.
  - 55-64 y.o.

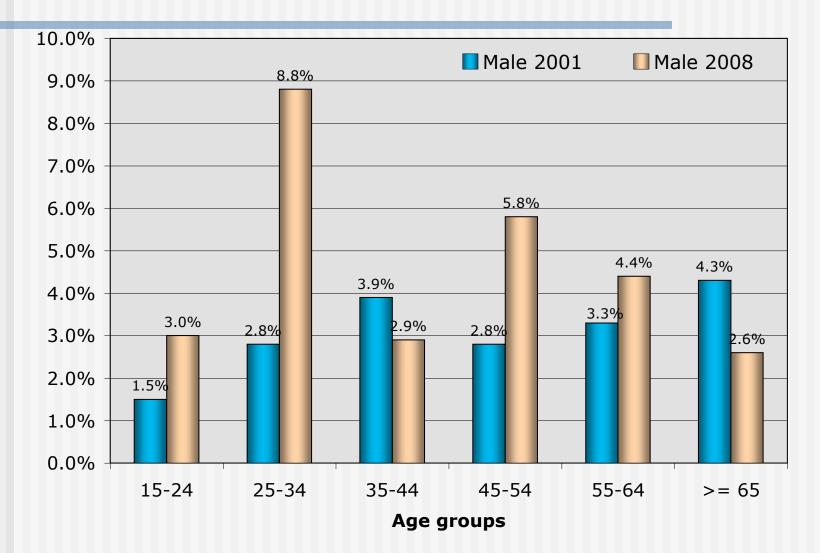
# Prevalence of OSAS (2008)



## Men (4.7%) are more likely than women (2.6%) to have OSAS

Odds ratio: 1.88 (1.22-2.90)

## OSAS (Men)

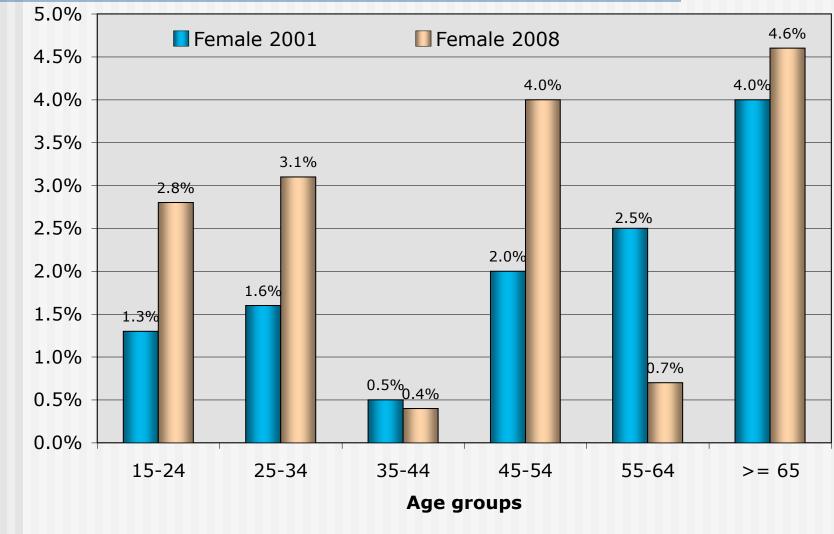


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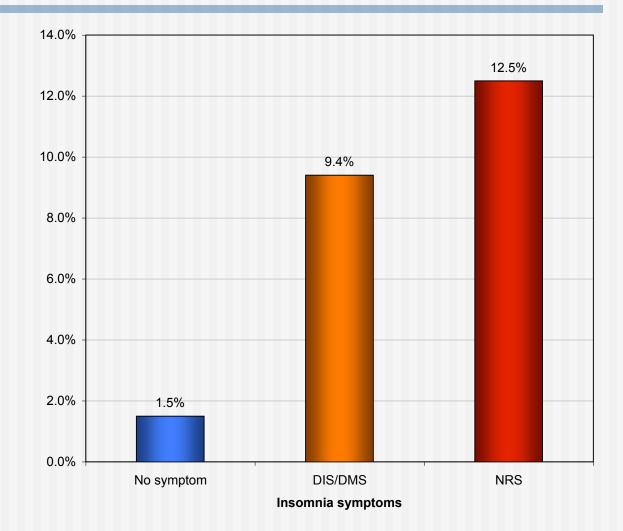
- Overall, prevalence of OSAS was significantly higher in 2008
  - 2001: 2.9%
  - 2008: 4.7%
- Significant differences were observed in
  - 25-34 y.o.

## OSAS (Women)



- Overall, prevalence of OSAS was significantly higher in 2008
  - 2001: 1.7%
  - 2008: 2.6%

#### NRS and OSAS



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#### After adjusting for age and gender, odds of having OSAS were:

- 12.0 (6.2-23.2) in NRS individuals
- 9.1 (4.7-17.7) in DIS/DMS individuals

## Conclusions

- 1/8 individuals reported insomnia symptoms in 2008 and 1/6 individuals in 2001
- Prevalence of OSAS has significantly increased in 8 years both in men and in women
- 1/20 men and 1/38 women have OSAS