Global, Regional and Country Specific Lifetime Risks of Stroke, 1990 and 2016

Introduction

 Stroke accounts for almost 5% of all disabilityadjusted life-years and 10% of all deaths worldwide, with the bulk of this burden occuring in low-income and middle-income countries. According to several surveys, the global burden of stroke has been increasing, and prevention of stroke may require an improved understanding of the risks among younger persons.

Methods

They used estimates from the Global Burden of Disease study 2016 of the rate of first stroke, cause-specific mortality, and all-cause mortality at the global regional (21 GBD regions nested within 7 GBD super-regions) and national (195 countries) levels, stratified according to age and sex. • Analyses were performed seperately for ischemic stroke and hemorragic stroke.

Results

• In 2016, the global life-time risk of stroke from the age of 25 years onward was 24.9% (95% uncertainty interval, 23.5 to 26.2).



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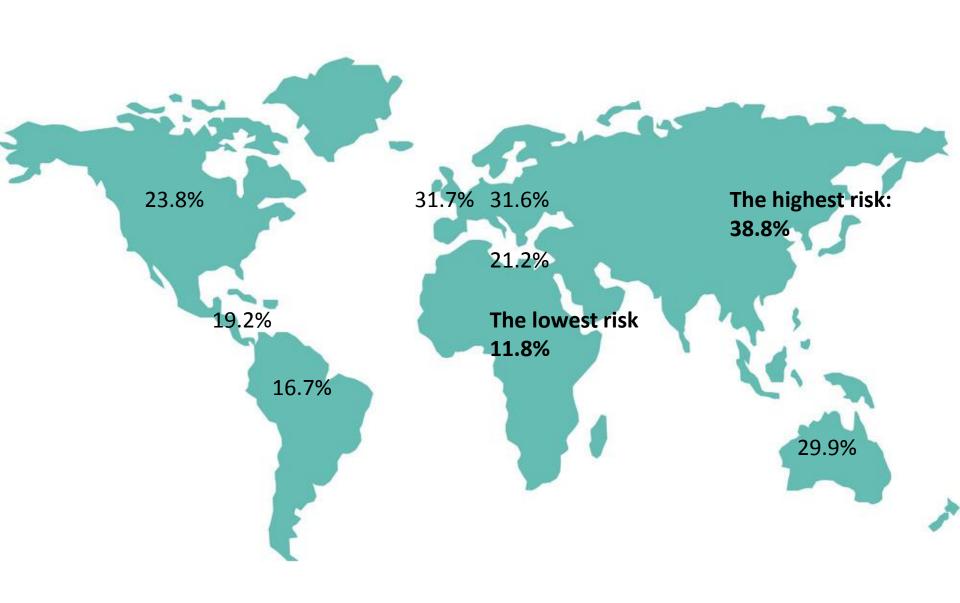


My name is 刘洁宇(我叫刘洁宇)

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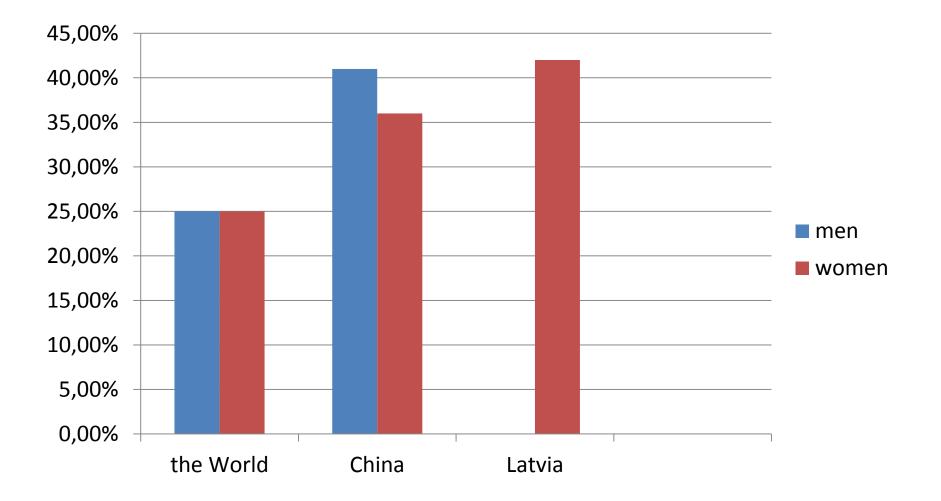


- China had the highest estimated risk : 39.3%
- The risks were similarly high in Bosnia and Herzegovina, Bulgaria, Latvia, Macedonia, Montenegro, Romania and Russia.





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 The high risk among women was also noted in Albania, Belarus, Bosnia and Herzegovina, Bulgaria, Lithuania, Macedonai, Montenegro, Romnai, Russia, Serbia, Slovakia and Ukraine.

- The estimates of global lifetime risk of stroke icreased from 22.8% in 1990 to 24.9% in 2016.
- The increase of ischemic stroke (12.5%) was greater than the hemorragic stroke (4%)

Discussion

 Many of the national estimated lifetime risks of stroke reported in this study are similar to or higher than those observed in specific populations in the same country in studies other than the GBD study such as the Framingham Heart Study cohort (21.1% among women, 16.9% among men). • A Chinese cohort showed that the lifetime risk of stroke is 14.7% among women and 18% among men.

- The epidemiologic approaches used in our study have limitations.
- The acuracy of the estimates of life-time risk of stroke was limited by the acuracy and availibality of epidemiologic data from the countries studied.

conclusion

 This study provided global, regional, and country specific estimates of the lifetime risk of stroke according to sex and age, although the precision of the estimates is limited by insufficient data in some countries

- The global life-time risk of stroke is approximately 25% starting at the age of 25 years among both men and women, with large geographic variation.
- The high numbers are presumed to be in East Asia, Central and Eastern Europe .

