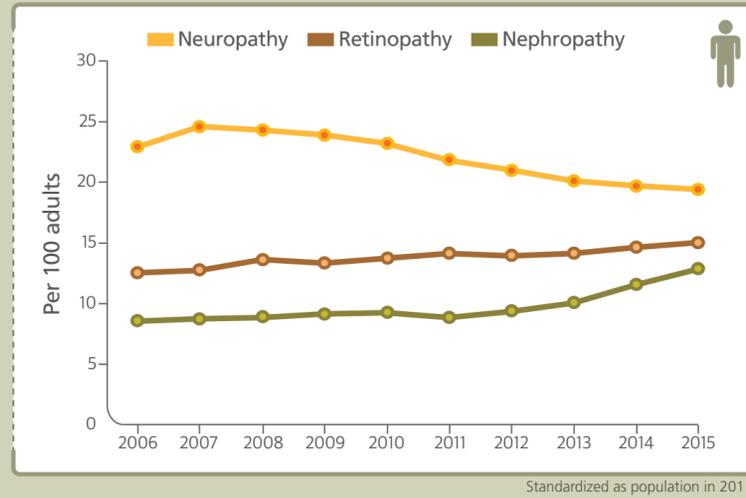


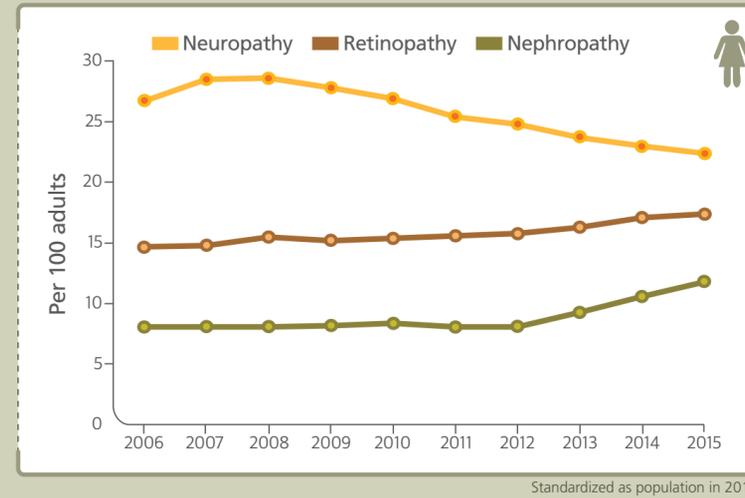
Microvascular complications

- The prevalence rate of diabetic neuropathy declined in both men (from 23.0 to 19.5 per 100 adults with diabetes) and women (from 26.7 to 22.4 per 100 adults with diabetes) from 2006 to 2015.
- In contrast, a rising trend was seen in diabetic retinopathy rate (men, from 12.6 to 15.1; women, from 14.7 to 17.4 per 100 adults with diabetes) and diabetic nephropathy rate (men, from 8.6 to 12.9; women, from 8.1 to 11.8 per 100 adults with diabetes).
- Diabetic nephropathy is the most common cause of end-stage renal disease (ESRD). The prevalence rate of ESRD also tended to increase (men, from 90 to 117; women, from 73 to 100 per 10,000 adults with diabetes).
- However, there was a decreasing trend in proliferative diabetic retinopathy (PDR) rate (men, from 138 to 126; women, from 120 to 104 per 10,000 adults with diabetes) and lower-limb amputation rate (men, from 17.4 to 13.8; women, from 5.9 to 5.2 per 10,000 adults with diabetes).

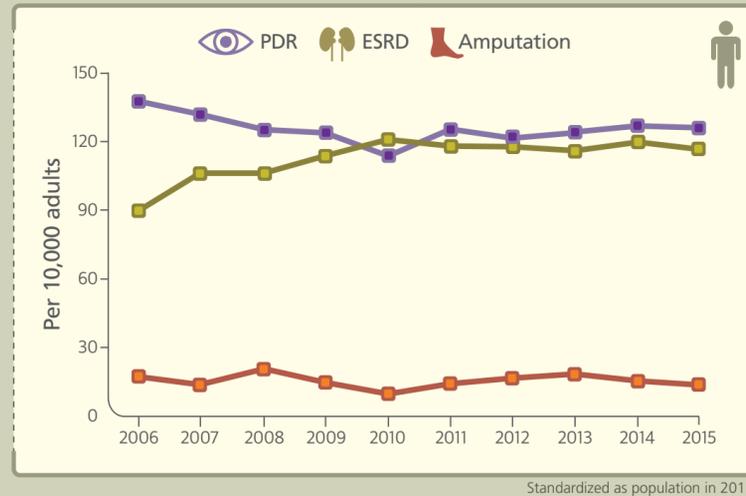
Trends of microvascular complications in diabetes (men)



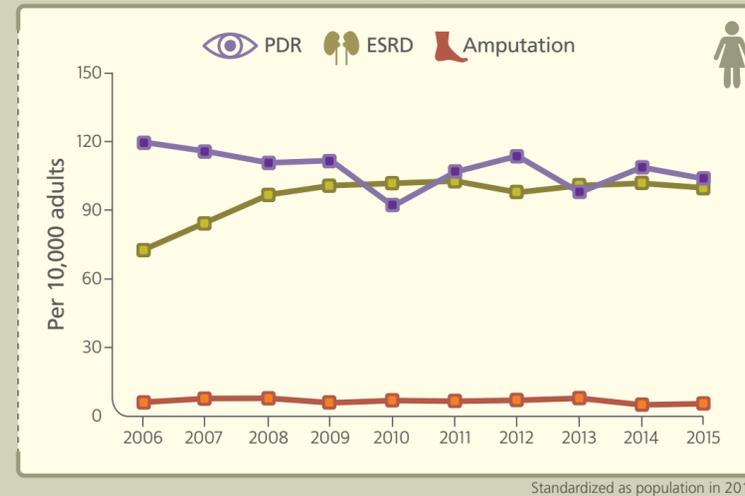
Trends of microvascular complications in diabetes (women)



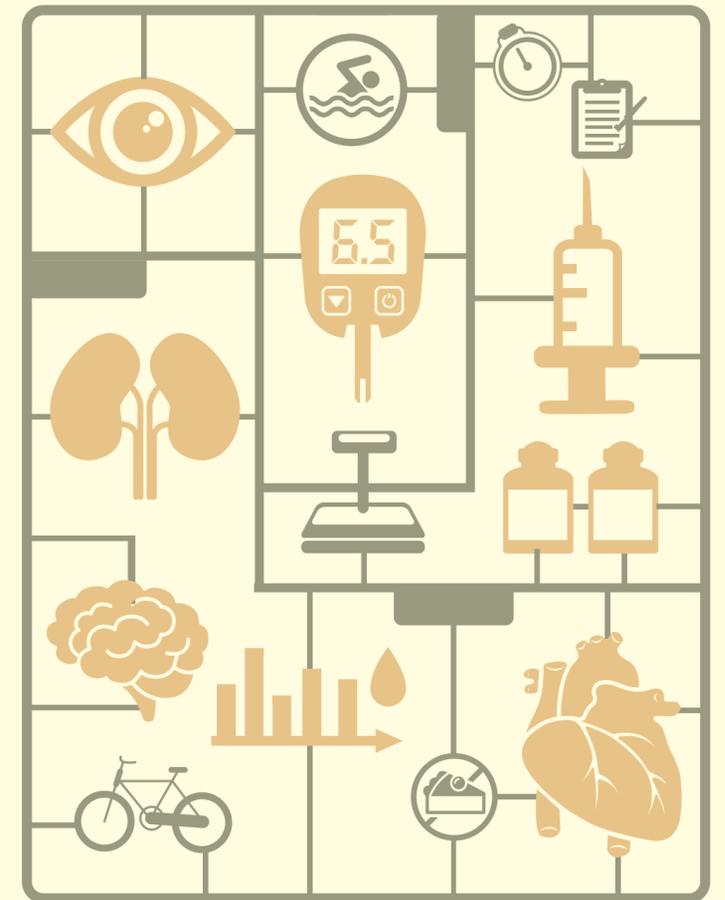
Trends of severe microvascular complications in diabetes (men)



Trends of severe microvascular complications in diabetes (women)



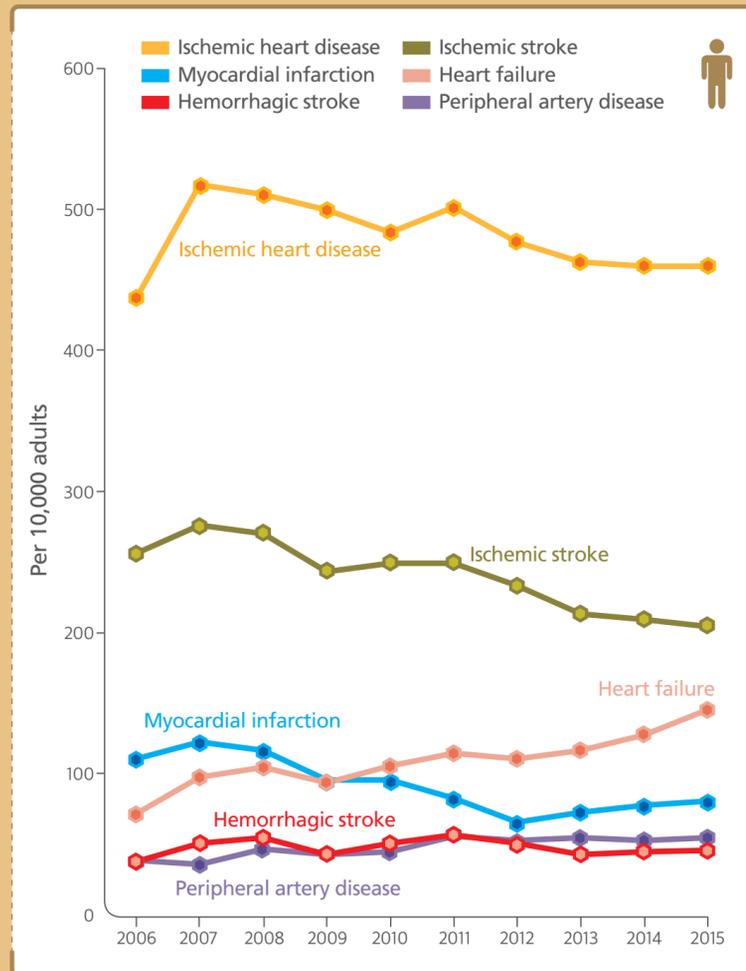
Diabetes & Complications in Korea



Cardiovascular complications

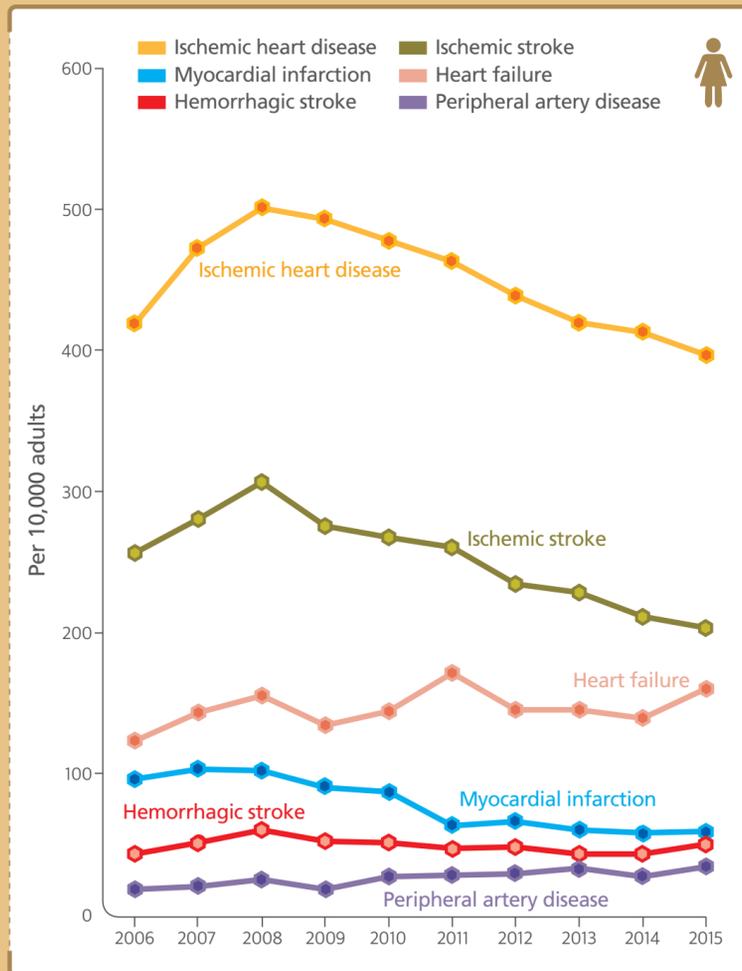
- During the period of 2006-2015, the prevalence rates of major cardiovascular complications - ischemic heart disease, stroke, and myocardial infarction-all tend to be declined.
- There was a decreasing trend in ischemic heart disease rate (men, from 438 to 461; women, from 419 to 397 per 10,000 adults with diabetes), myocardial infarction rate (men, from 111 to 81; women, from 97 to 60 per 10,000 adults with diabetes) and stroke rate (men, from 291 to 254; women, from 308 to 258 per 10,000 adults with diabetes).
- A rising trend was seen in heart failure rate (men, from 72 to 146; women, from 124 to 161 per 10,000 adults with diabetes) and peripheral artery disease rate (men, from 19 to 35 per 10,000 adults with diabetes).
- The prevalence rates of revascularization slightly decreased: percutaneous coronary intervention rate (men, from 97 to 95; women, from 56 to 50 per 10,000 adults with diabetes) and coronary artery bypass surgery rate (men, from 11 to 7; women, from 4 to 4 per 10,000 adults with diabetes).

Trends of cardiovascular complications in diabetes (men)



Standardized as population in 2011

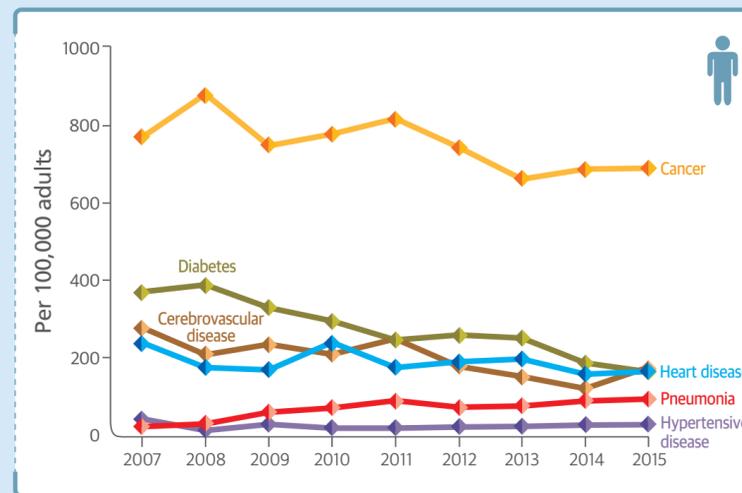
Trends of cardiovascular complications in diabetes (women)



Standardized as population in 2011

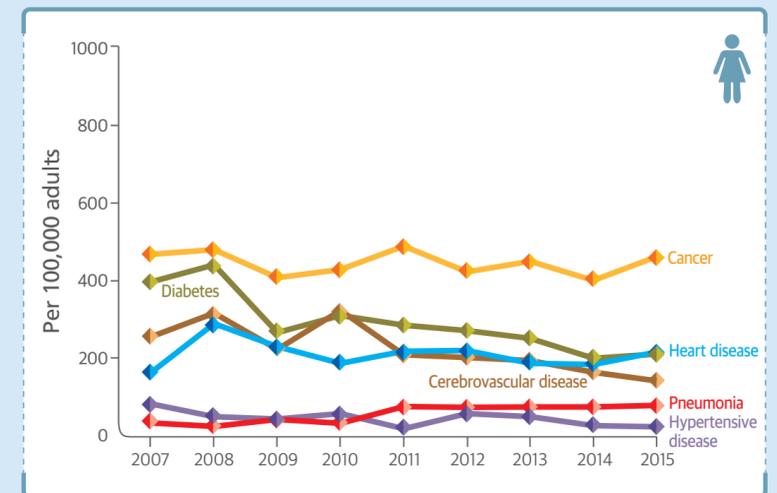
- During the period of 2007-2015, mortality rate decreased in both men (from 2,599 to 2,010 per 100,000 adults with diabetes) and women (from 1,939 to 1,662 per 100,000 adults with diabetes).
- The prevalence rates of death due to cancer, cerebrovascular disease, diabetes, heart disease, or hypertensive disease decreased in both men and women.
- However, the prevalence rate of death due to pneumonia increased in both men (from 22 to 93 per 100,000 adults with diabetes) and women (from 34 to 79 per 100,000 adults with diabetes).
- In 2015, the six leading causes of death accounted for 66.7% of all deaths occurring in Korean adults with diabetes: cancer (30.3%), heart disease (10.5%), diabetes (10.5%), cerebrovascular disease (8.9%), pneumonia (5.0%), and hypertensive disease (1.5%).

Trends of mortality rates for the six leading causes of death in diabetes (men)



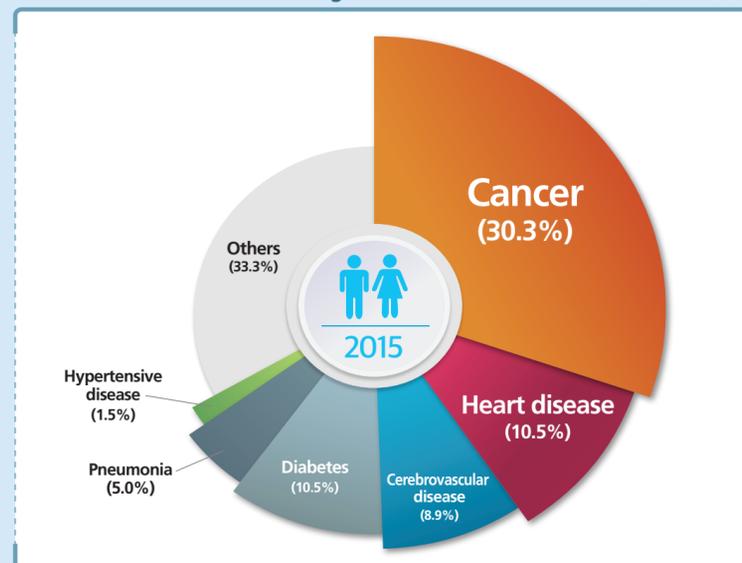
Standardized as population in 2011

Trends of mortality rates for the six leading causes of death in diabetes (women)



Standardized as population in 2011

Distribution of the six leading causes of death in diabetes, 2015 (%)



Methods

The age-standardized complication and mortality rates in diabetic people over the age of 30 were determined from the 2006-2015 National Health Insurance Service-National Sample Cohort (NHIS-NSC) conducted by the National Health Insurance Service (NHIS).

Complications and mortality rates were adjusted through direct standardization based on the year 2011 distribution of study people with diabetes across sexes and five-year age groups from 30-34 to 85 years and older.

The diagnosis of microvascular complications was made when patients were treated for the same disease more than twice in inpatient or outpatient settings, or when any related medications were prescribed. Severe microvascular complications were defined as combining corresponding diagnosis and the related procedures. Cardiovascular complications were defined as hospitalization with a diagnosis of each cardiovascular disease.

Mortality was defined by death status and cause of death in the NHIS-NSC, which was linked to the National Death Registry using unique resident registration numbers.