

Diabetes prevalence in Denmark: Current state and prediction for 2030

Bendix Carstensen Steno Diabetes Center Copenhagen
Gentofte, Denmark
<http://BendixCarstensen.com>

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**Steno Diabetes Center
Copenhagen**

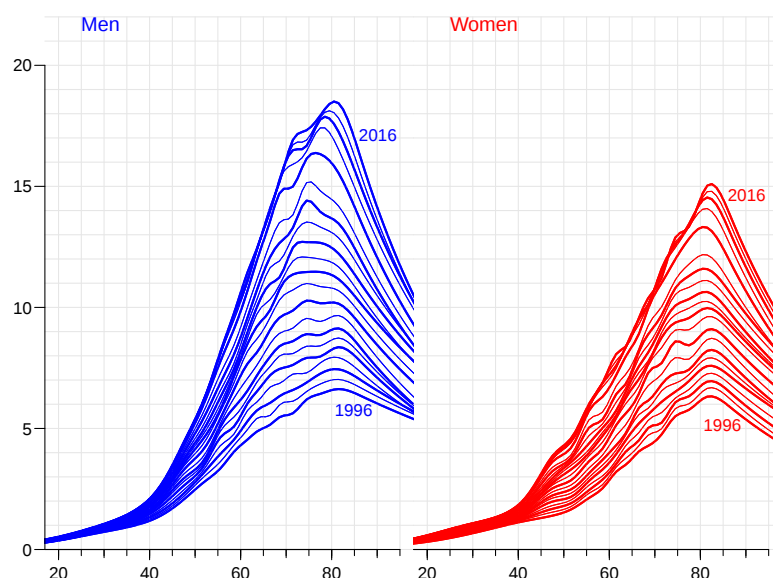
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DM in Denmark

- ▶ Diabetes register for the entire Danish population (≈ 5.5 mil.)
- ▶ Constructed from other registers:
 - ▶ National Patient register
 - ▶ Prescription register
 - ▶ Health Services register
 - ▶ Clinical quality database (DVDD, DiaBase)
- ▶ Covers 1996–2015 incl.:
 - ▶ Prevalence
 - ▶ DM incidence rates (new cases/PY in non-DM)
 - ▶ Mortality rates for DM persons
 - ▶ Mortality rates for non-DM persons

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Changing prevalence of DM in Denmark



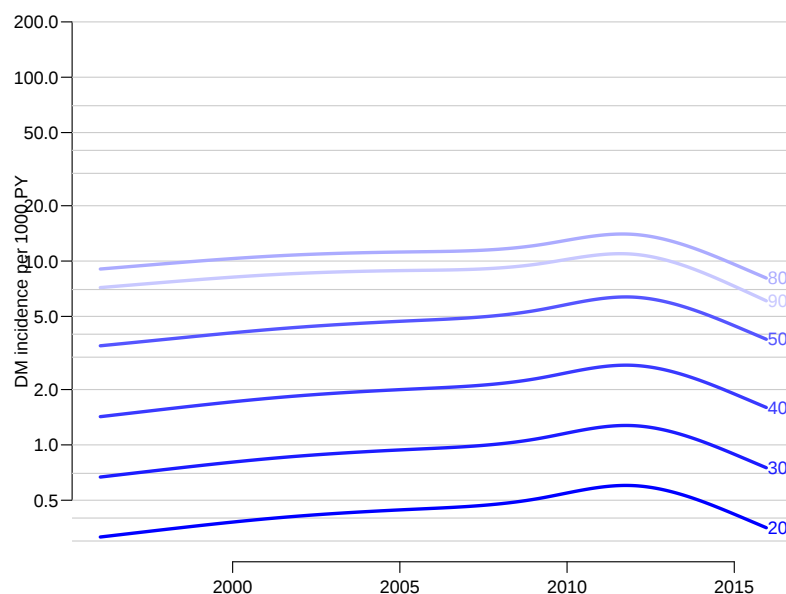
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Changing incidence and mortality (%/year)

DM incidence change	Men	2.0 (1.9; 2.1)
	Women	2.2 (2.1; 2.3)
< 2012	Men	3.6 (3.5; 3.7)
	Women	3.5 (3.4; 3.7)
> 2012	Men	-11.1 (-11.6;-10.6)
	Women	-12.3 (-12.9;-11.8)
Mortality change, DM:	Men	-3.7 (-3.8; -3.5)
	Women	-3.3 (-3.4; -3.2)
Mortality change, no DM:	Men	-2.9 (-2.9; -2.8)
	Women	-2.4 (-2.5; -2.4)

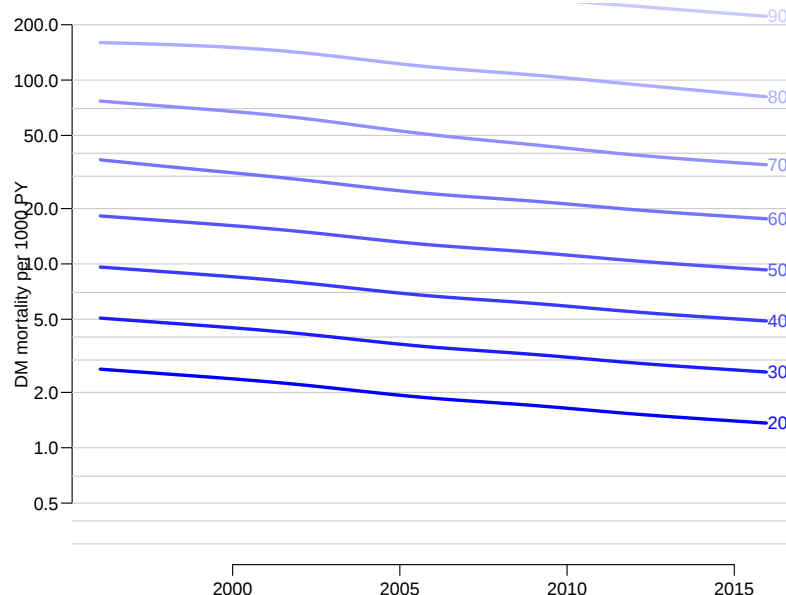
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Changing incidence of DM in Denmark



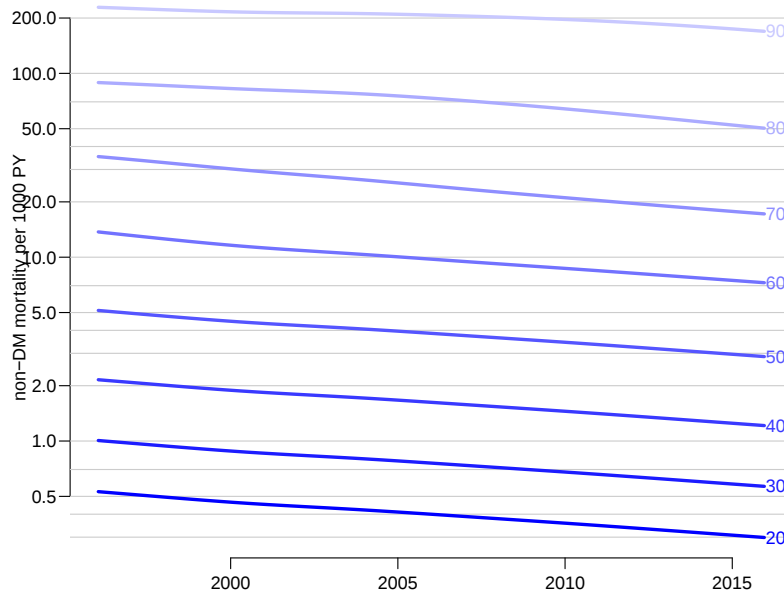
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Changing mortality in DM ptt. in Denmark



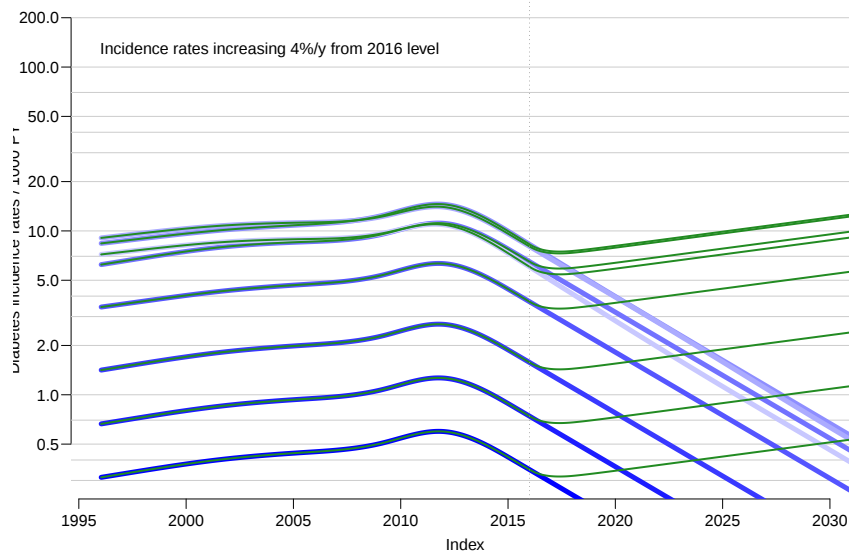
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Changing mortality among non-DM persons



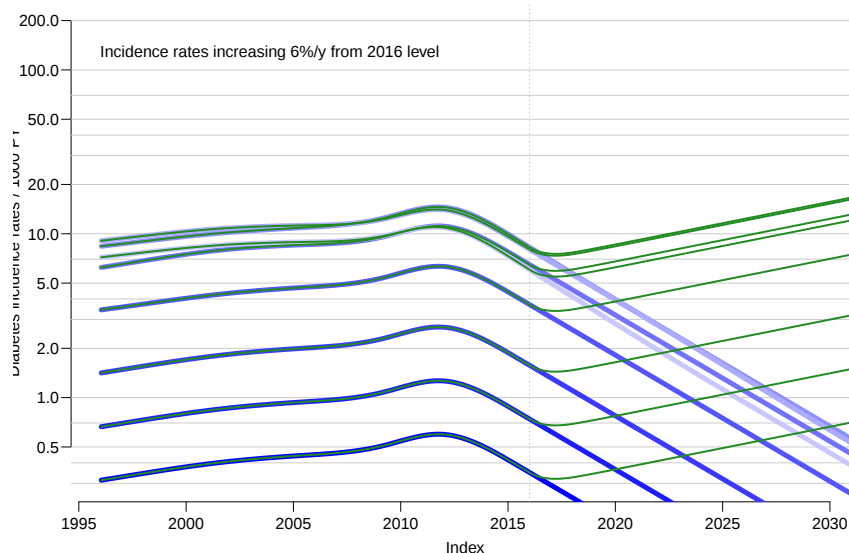
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Predicting DM incidence till 2030



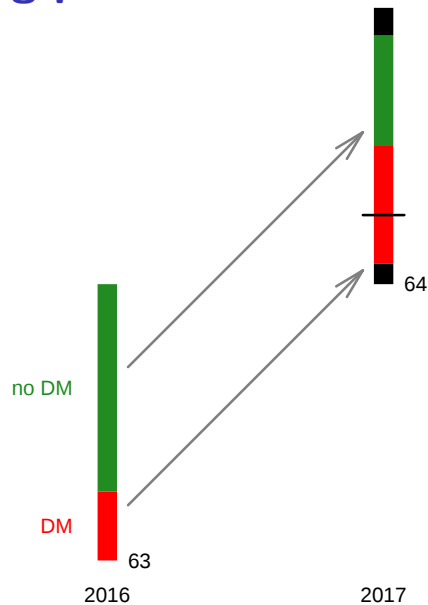
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Predicting DM incidence till 2030



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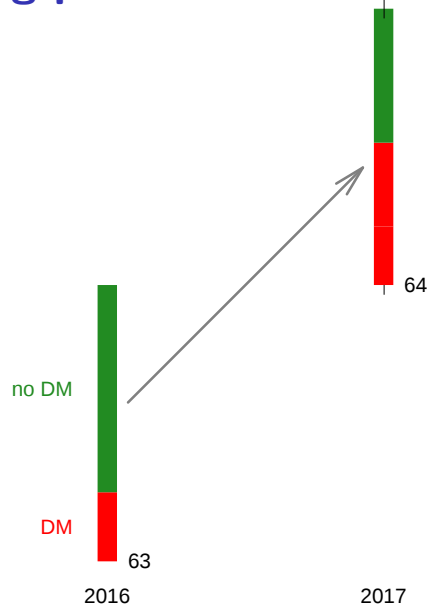
Predicting prevalence in small steps



Using:
Incidence rates of DM
Mortality rates for DM ptt.
Mortality rates for non-DM

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Predicting prevalence in small steps



Using:
Incidence rates of DM
Mortality rates for DM ptt.
Mortality rates for non-DM

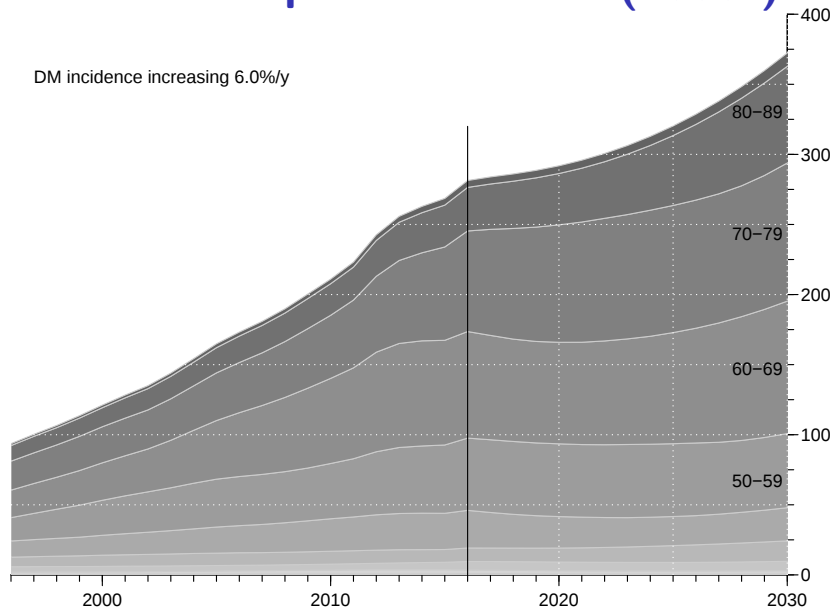
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Predicting prevalence

- ▶ Age-specific prevalences each year
- ▶ Multiply with population forecast from Statistics Denmark
- ▶ → the **number** of diabetes patients
- ▶ We make the prediction under different incidence scenarios:
 - ▶ rates are as in 2016
 - ▶ increase 2% per year
 - ▶ increase 4% per year
 - ▶ increase 6% per year
- ▶ Assume mortality decrease 2.5% in non-DM persons
- ▶ Assume mortality decrease 3.5% in DM patients

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Number of DM patients in DK (1000s)



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Summary

- ▶ Mortality decreasing stably:
 - ▶ 2.5% / y for non-DM
 - ▶ 3.5% / y for DM ptt.
- ▶ Incidence rates
 - ▶ increasing till 2012 (3.5% / y)
 - ▶ then decreasing (12% / y)
- ▶ no good explanation (HbA_{1c}-criteria?)
- ▶ Prediction is **very** much guesswork.
- ▶ Total no. DM ptt. in 2030: **370,000**

Thanks for your attention.

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