

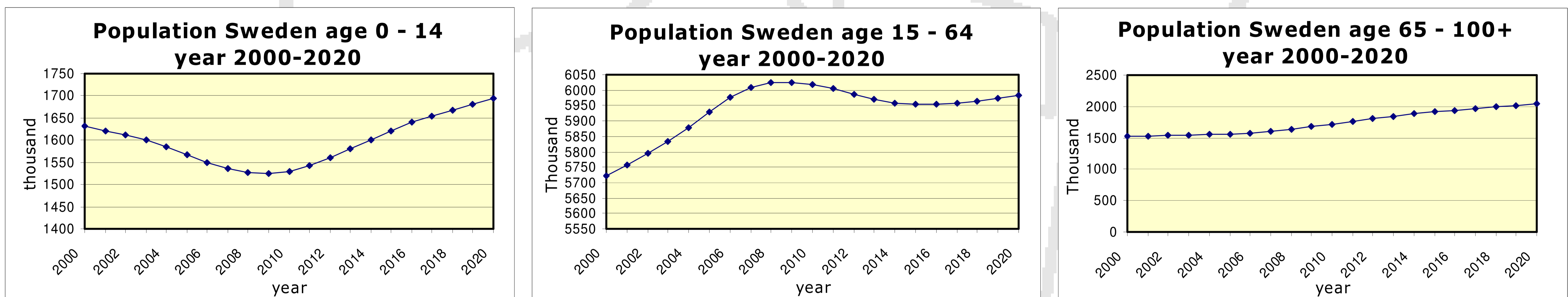
A Swedish CBA on acidification abatement the CAFE Baseline scenario

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Benefits: Health

The reduction in acid deposition over Sweden causes beneficial health effects. The valuation of the health effects following this reduction was performed on a grid cell specific level. The population size in each Swedish cell was used for the impact calculations. The population in each cell was divided into three age-specific subgroups according to Swedish average. The national growth rate for the three groups was used for all cells.

Population development in Sweden 2000 - 2020



Valuation

The values and exposure-response functions of health effects were used to quantify the effects of acidification on the Swedish population. Using benefit transfer methods, these values were taken from valuation studies based on CVM and MWTP. Extra attention was given to the effort on estimating the economic value of avoided mortal outcomes from reduced acid deposition. The table to the right shows the Net Present Value of the health benefits caused by reduced acid deposition from 2000 to 2020.

NPV of health benefits (thousand €₂₀₀₀)

Acidification effect	
Reduced days of breathing discomfort from NO ₂	17
Reduced mortality from NO ₂ – elders	10290
Congestive heart failure – elders	47
Restricted activity days – adults	7707
Bronchodilator usage - asthma adults	1814
Cough - asthma adults	2101
Lower resp symptoms - asthma adults	135
Bronchodilator usage - asthma children	131
Cough - asthma children	255
Lower resp symptoms - asthma children	35
Respiratory hospital admission (RHA)	39
Cerebrovascular hospital admission	364
Chronic mortality - deaths	86690
Chronic bronchitis - adults	11010
Chronic cough - children	369
TOTAL – Health benefits	121004