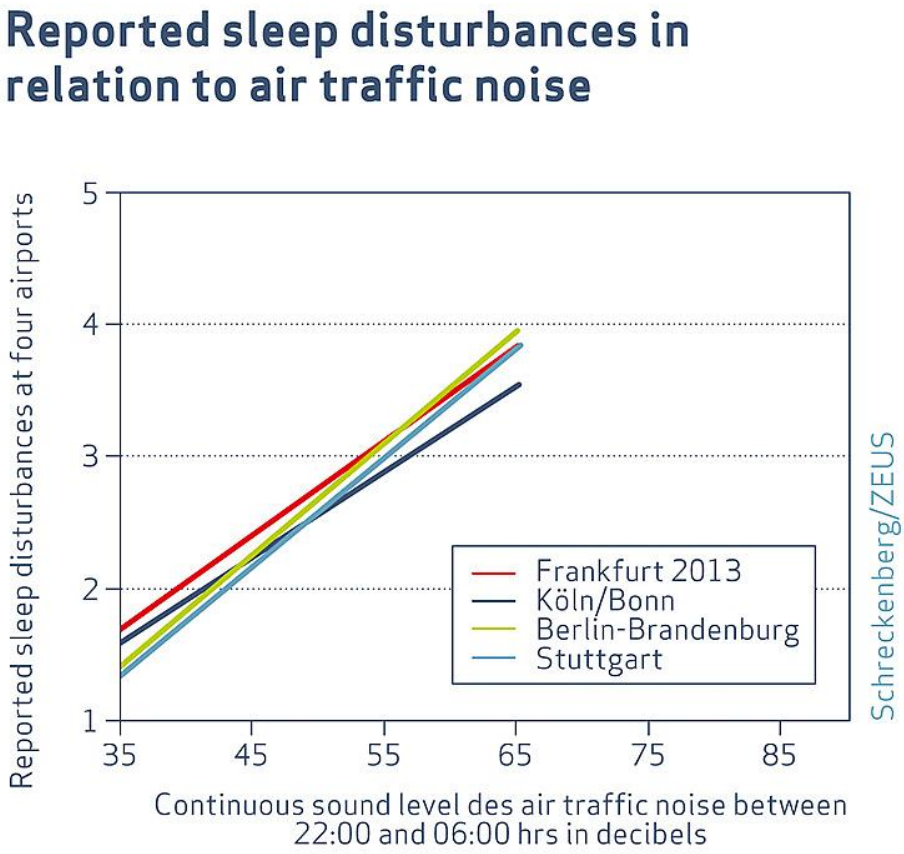
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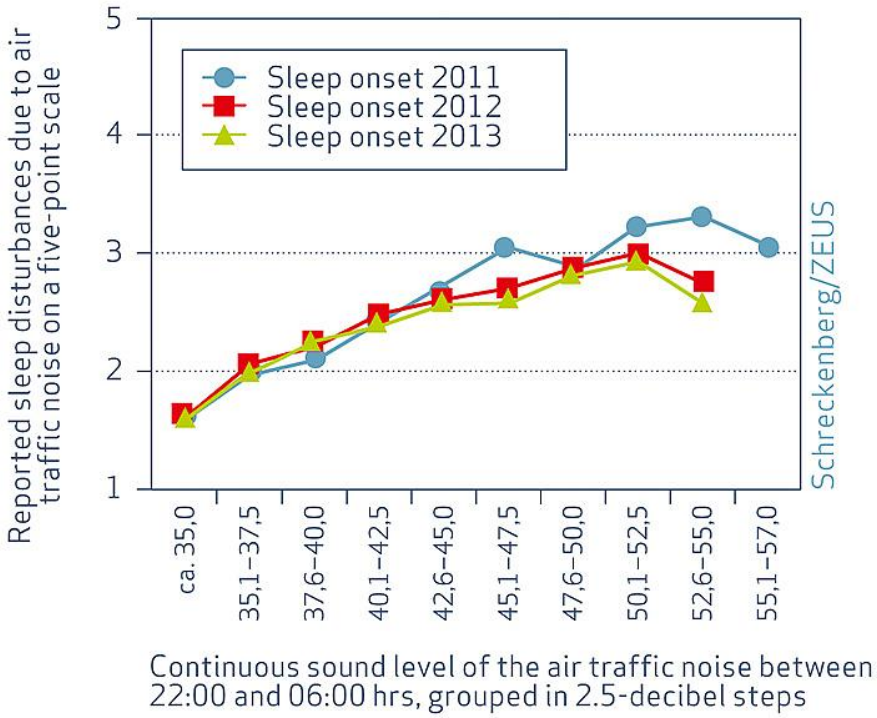
How residents around airports assess their sleep quality



The respondents provided details on their own sleep quality. In regions with slightly less air traffic noise exposure, residents around Frankfurt airport gave the poorest assessment of their sleep quality.

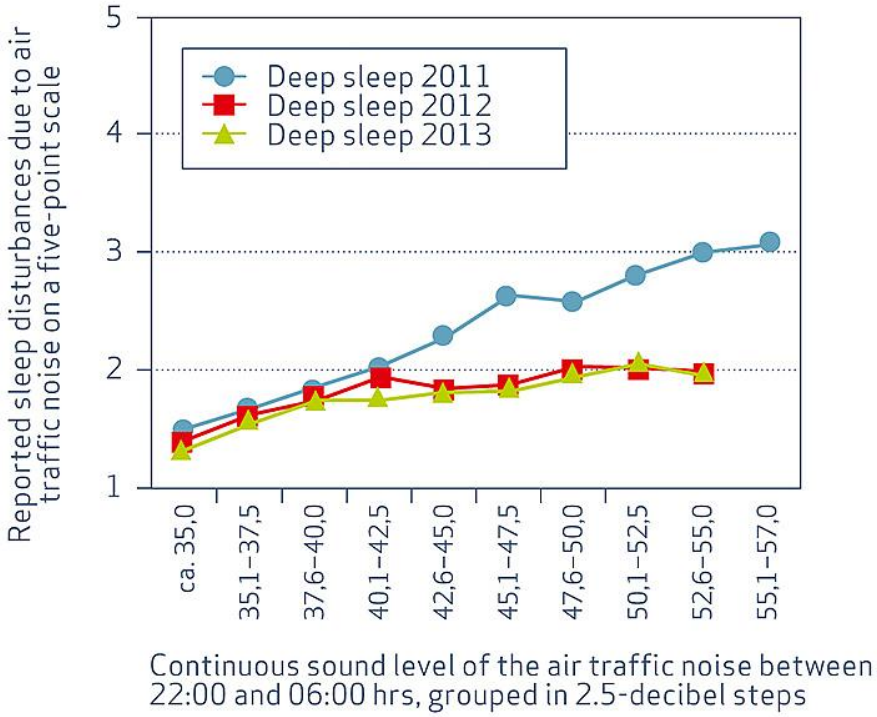
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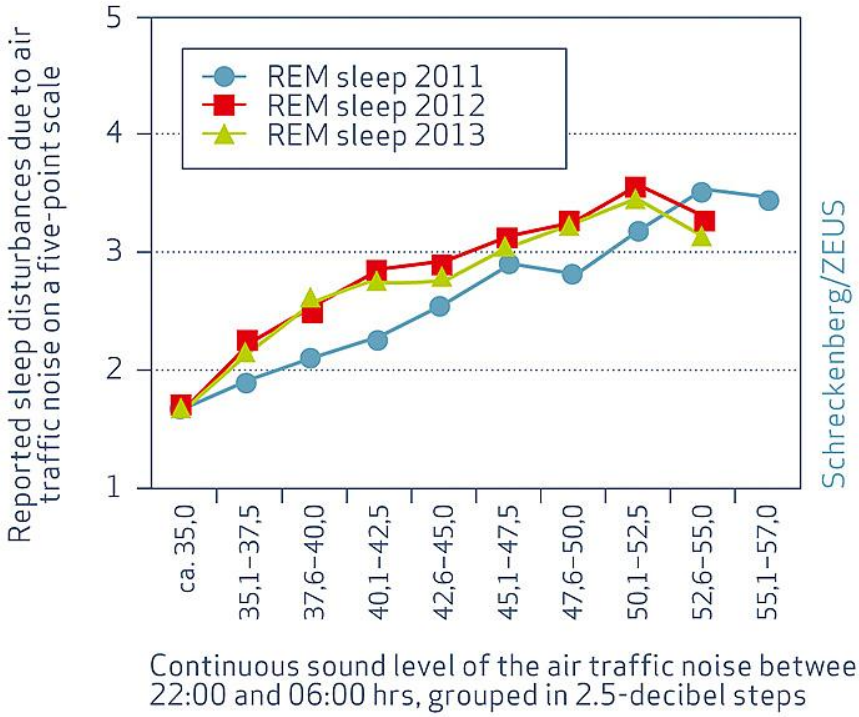
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For all three sleep phases, the answers of the respondents in the three investigation years showed some substantial differences.

A somewhat different picture emerged when the scientists analyzed the answers on sleep quality at the various locations. Within the framework of the Quality of Life Study, the NORAH team did not directly examine the sleep quality of the study participants, but rather asked them to what extent their sleep was disturbed by traffic noise. A five-point scale was again used here. The result: in 2011, i.e. before the introduction of the curfew on scheduled flights between 23:00 and 05:00 hrs at Frankfurt airport, the people in this region felt considerably more disturbed in their sleep by air traffic noise than those at other airports - at both low and high continuous sound levels. In the two following years, the sleep disturbances decreased somewhat from the point of few of the people concerned in the Frankfurt region: at continuous sound levels from around 57 decibels, the people here perceived their sleep as less disturbed than the respondents in the environs of the planned Berlin-Brandenburg airport. At lower continuous sound levels the people in the Rhine-Main region still felt more disturbed in their sleep. This is followed in second place by the respondents in the environs of Cologne/Bonn airport. A further analysis of the answers showed that the respondents were mainly of the opinion that they slept better through the night after the introduction of the night flight curfew at Frankfurt airport. Their assessments of the sleep onset and REM sleep phases differ substantially less from each other in the three years. For further results on the sleep quality

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in the Rhine-Main region, please refer to the NORAH Sleep Study (see NORAH Knowledge No. 10 – results of the Sleep Study).