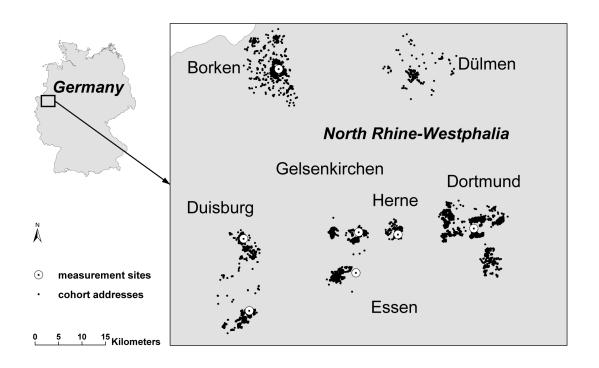
E-Figure\_1. Timing of the cross-sectional studies, number of participants by study area, and number of participants that were followed-up for vital status and migration\*. In 1987, 1993 and 1994 cross-sectional studies were performed in Borken and in Dormagen, Düsseldorf, Hürth, Köln, Leverkusen, and Wuppertal (data not shown). Names and addresses of the participants from these places were no longer available for the present study.

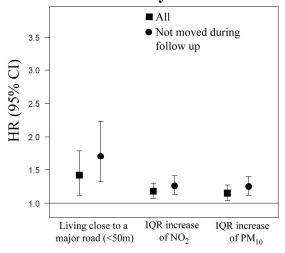
		Cross-sectional study (baseline questionnaire)									
Non-industrial reference areas											
Borken	163	123	301			267			441	276	1534 (97.6%
Dülmen	148										148 (100%)
Industrial areas											
Dortmund NE	235					351					581 (99.1%)
Dortmund NW	320					283					600 (99.5%)
Dortmund S	256										252 (98.4%)
Dui sburg N						345					345 (100%)
Dui sburg S						340					339 (99.7%)
Essen						293					291 (99.3%)
Gelsenkirchen		268				324					525 (88.7%
Herne						140					138 (98.6%
Total	1122	391	301			2343			441	276	4752 (97.5%)
	1			- 1	- 1		- 1				- // +
	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	2006 2007 20

**E-Figure\_2.** Map of North Rhine-Westphalia showing the location of the participants' baseline addresses (N = 4.615) and the location of the air pollution monitoring stations (N=7). There is no measurement station in Dülmen.

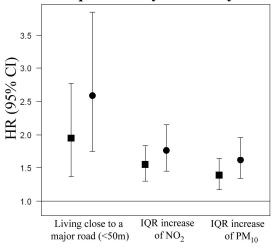


**E-Figure\_3** Adjusted hazard rate ratios (HR) for all-cause and cardiopulmonary mortality for the entire cohort and for those who never moved.

## **A All-cause Mortality**



## **B** Cardio-pulmonary Mortality



**E-Figure\_4** Annual mean concentrations of (a) particulate matter with a diameter of less than  $10~\mu m$  (PM $_{10}$ ) and (b) nitrogen dioxide (NO $_2$ ) from 1982 to 2008, by study area.

