***Sample exclusion criteria:***

Children were excluded from analyses if they: 1) had missing AEDC scores (*n*=382); 2) were from a multiple birth, in which case one child from each twin or triplet set was randomly selected (excluded *n*=274); 3) had a parent who had died during the study period (*n*=132); 4) were identified by the teacher as ‘special needs’ in the AEDC dataset (*n*=753); or 5) had a diagnosis of developmental disorder (e.g., autism) or cerebral palsy in the Health Department datasets (*n*=41). Children considered as ‘special needs’ are those with a diagnosed disability (physical, intellectual), as identified on the child’s school record. AEDC category scores are not calculated for these children, since they have already been identified as having substantial developmental needs, and are receiving in-school assistance. Children with a developmental disorder or cerebral palsy were likewise excluded to limit the potential for confounding school readiness outcomes with pre-existing developmental conditions. Children whose parents had died were excluded from the sample to limit the potential for confounding the association between developmental vulnerability and parental death, with the association between developmental vulnerability and parental psychiatric disorder.

***Details of data sources for covariates:***

Datasets were linked by the WA Data Linkage Branch by matching identifiers common to the sets of records (e.g., name, address etc.), using a probabilistic matching approach and clerical review (Holman *et al*., 2008). Biological child-parent links were made using the WA Family Connections Genealogical System (Glasson *et al*., 2008), which uses birth records to link children with parents within administrative data sets.

***Child characteristics***

Child gender, year of birth, and Aboriginality were obtained from the Midwives Notification System, provided by the WA Health Department, and Birth Registrations, from the WA Department of the Attorney General. These datasets contain pregnancy and birth information for all births in WA. In the AEDC dataset, teacher-reported information identified children who spoke English as a second language (ESL). If there were any values for Aboriginality missing from the birth information, this was imputed from the AEDC dataset, which takes this information from the child’s school enrolment record.

***Parent characteristics***

Parental age and mother’s marital status were obtained from the Midwives Notification System and Birth Registrations, and were recorded at the time of the child’s birth.

***Community characteristics***

In the AEDC dataset, each child is assigned an ID for the local community in which they were residing at the time of AEDC completion. Each local community ID has corresponding values for the Australian Standard Geographical Classification (ASGC; Australian Bureau of Statistics, 2011a) and Index of Relative Socioeconomic Disadvantage (IRSD; Australian Bureau of Statistics, 2011b), which are determined by the Australian Bureau of Statistics. The ASGC classifies a geographical area as metropolitan, inner/outer regional, or remote/very remote, based on the access to goods, services, and opportunities for social interaction in that area. Due to smaller cohort numbers outside the metropolitan areas, these five categories were collapsed into three (metropolitan, regional, remote). The IRSD is derived from census information that reflects area-level disadvantage such as low income, low educational attainment, high unemployment, and jobs in relatively unskilled occupations. Local communities are given a score ranging from 1 (most disadvantaged) to 5 (least disadvantaged).

**References for supplementary material**

**Australian Bureau of Statistics** (2011a). Australian Standard Geographical Classification. (<http://www.abs.gov.au/websitedbs/D3310114.nsf/home/Australian+Standard+Geographical+Classification+(ASGC)>)

**Australian Bureau of Statistics** (2011b). Index of Relative Socio-economic Disadvantage. (<http://www.abs.gov.au/ausstats/abs@.nsf/Lookup/2033.0.55.001main+features100052011>)

**Glasson EJ, de Klerk NH, Bass AJ, Rosman DL, Palmer LJ, & Holman CDJ** (2008). Cohort profile: The Western Australian Familiy Connections Genealogical Project. *International Journal of Epidemiology*, **37**, 30-35.

**Holman CDJ, Bass JA, Rosman DL, Smith MB, Semmens JB, Glasson EJ, Brook EL, Trutwein B, Rouse IL, Watson CR, de Klerk NH, & Stanley FJ** (2008). A decade of data linkage in Western Australia: Strategic design, applications and benefits of the WA data linkage system. *Australian Health Review*, **32**, 766–777.