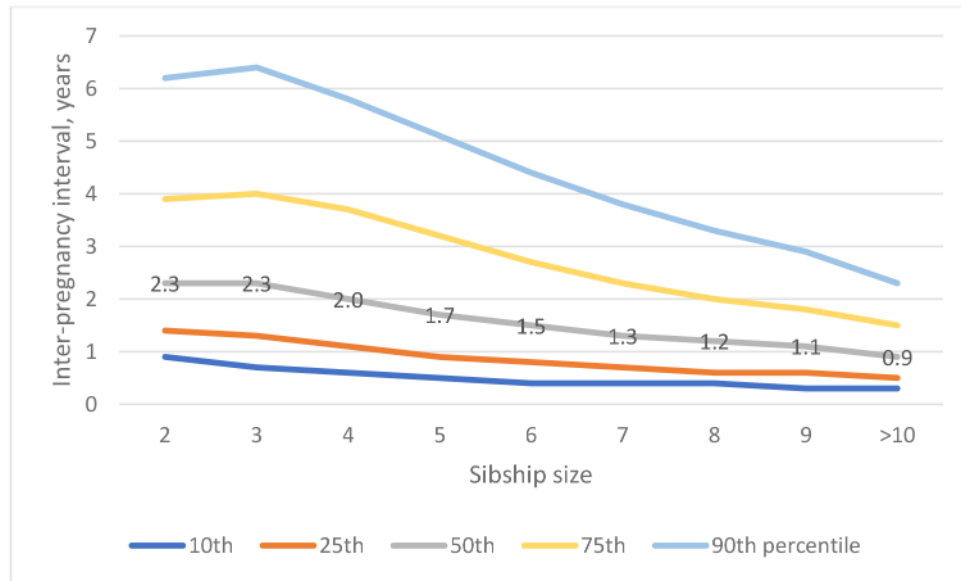


Supplementary Figure 1: Inter-pregnancy interval in mother-siblings cohort by the sibship size



Inter-pregnancy interval is the time period between one delivery and the estimated conception date of next pregnancy. Conception date was estimated based on delivery date and gestation age; we used the average gestational age (39 weeks) if it was missing. We excluded the first delivery (regardless of whether it was a singleton birth or multiple birth) when calculating the summary statistics of inter-pregnancy interval, as they were always zero by definition. The figure summarised the values for individual children, not by sibling clusters. The numbers in the plots represent the median values (p50).

Supplementary Table 1: The codelists used to define stillbirth in Hospital Episode Statistics

Data source	Fields	Codelist
Diagnosis codes	ICD10	P95, Z371, Z373, Z374, Z376, Z377
HES specific fields	Discharge method	5
	Birth status	2-4

Supplementary Table 2: The number of boys in the mother-siblings cohort

Sibship size	Number of boys in sibling cluster								Total
	0	1	2	3	4	5	6	>=7	
2	651248 (23.1%)	1446101 (51.4%)	718308 (25.5%)	—	—	—	—	—	2815657 (100%)
3	99068 (12.1%)	291315 (35.4%)	313113 (38.1%)	118503 (14.4%)	—	—	—	—	821999 (100%)
4	14640 (6.5%)	54677 (24.1%)	81170 (35.8%)	58580 (25.9%)	17448 (7.7%)	—	—	—	226515 (100%)
5	2234 (3.5%)	10193 (16.1%)	18594 (29.4%)	18669 (29.5%)	10802 (17.1%)	2706 (4.3%)	—	—	63198 (100%)
6	373 (1.9%)	2051 (10.3%)	4526 (22.7%)	5743 (28.8%)	4528 (22.7%)	2261 (11.3%)	446 (2.2%)	—	19928 (100%)
7	57 (0.9%)	389 (6.0%)	1051 (16.1%)	1647 (25.3%)	1696 (26.0%)	1154 (17.7%)	438 (6.7%)	86 (1.3%)	6518 (100%)
8	13 (0.5%)	78 (3.2%)	253 (10.4%)	511 (20.9%)	607 (24.9%)	583 (23.9%)	288 (11.8%)	108 (4.4%)	2441 (100%)
>=9	3 (0.2%)	24 (1.5%)	74 (4.6%)	215 (13.4%)	313 (19.6%)	397 (24.8%)	308 (19.3%)	98 (10.4%)	1600 (100%)
Total	767636 (19.4%)	1804828 (45.6%)	1137089 (28.7%)	203868 (5.2%)	35394 (0.9%)	7101 (0.2%)	1480 (0.1%)	348 (0.1%)	3957856 (100%)

The number of siblings and the number of boys in each mother-sibling cluster were counted up to January 2022.