**(WEB-ONLY) APPENDIX 1** Study questions pertaining to maternal occupation asked during computer assisted telephone interview, National Birth Defects Prevention Study, 1997-2002

1. The next section is a series of questions about your work experiences – paid, volunteer, or military service. This includes part-time and full-time jobs, jobs at home, and jobs on a farm or outside your home that lasted one month or more. Between three months before conception (-3) and the date of delivery (DOIB), did you have a job? (Response Options = Yes; No; Don’t Know)

If “No” or “Don’t Know”

1. Were you (READ CHOICES) or did you do something else?
   1. A homemaker/parent
   2. A student
   3. Disabled
   4. Unemployed/in between jobs
   5. Other

If “Yes”\*

1. What were the names of companies or organizations you worked for between (-3) and (DOIB)? (Free Response)
2. What was your job title there? (Free Response)
3. What did they make or do? IF CONGLOMERATE: What did your division make or do? (Free Response)
4. Describe what you did and how you did it. What were your main activities or duties? (Free Response)
5. Describe any chemicals or substances you handled or machines that you used. (Free Response)
6. What month and year did you start that job?
7. What month and year did you end that job?
8. How many days per week did you usually work?
9. How many hours per day did you usually work?
10. In your jobs between (-3) and (DOIB) did you work with or make (Response Options = Yes; No; Don’t Know):
    1. anaesthetic gases
    2. ionizing radiation, such as x-rays
    3. heavy metals (such as lead, mercury, nickel)
    4. pesticides, herbicides, fungicides, insecticides, or rat poison
    5. solvents like paint thinners, auto fluids, toluene, carbon disulfide, or carbon tetrachloride

For every “Yes” response, the following three questions were asked:

1. What was the name of the product?
2. During which months [of pregnancy] did you use the product?
3. How many hours or minutes per week were you around the product?

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| --- | --- | --- | --- | --- | --- | --- |
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\*Questions 3-15 asked for every job reported from 3 months before conception through the end of pregnancy.

**(WEB-ONLY) APPENDIX 2** Adjusted\* associations between exposure to classes of solvents from literature-based approach and selected simple, isolated congenital heart defects, following sensitivity analysis restricting women to those with jobs with 50% or greater probability of exposure, National Birth Defects Prevention Study, 1997-2002

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Any Solvent | | Aromatic Solvents | | Chlorinated Solvents | | Stoddard Solvent | |
|  |  |  |  |  |  |  |  |  |
|  | N† | OR (95% CI) | N† | OR (95% CI) | N† | OR (95% CI) | N† | OR (95% CI) |
|  |  |  |  |  |  |  |  |  |
| Any congenital heart defect | 81 | 1.4 (1.0 to 1.9) | 43 | 1.2 (0.8 to 1.9) | 33 | 1.0 (0.7 to 1.6) | 18 | 2.8 (1.3 to 6.2) |
|  |  |  |  |  |  |  |  |  |
| Conotruncal defects | 21 | 1.4 (0.8 to 2.4) | 11 | 1.1 (0.6 to 2.3) | 9 | 1.1 (0.5 to 2.3) | 3 | 2.1 (0.6 to 8.0) |
|  |  |  |  |  |  |  |  |  |
| Tetralogy of Fallot | 11 | 1.3 (0.7 to 2.7) | 5 | 0.7 (0.2 to 2.4) | 5 | 1.2 (0.5 to 3.2) | 2 | 2.8 (0.6 to 13.2) |
|  |  |  |  |  |  |  |  |  |
| D-transposition of the great arteries | 8 | 1.6 (0.8 to 3.5) | 5 | 1.8 (0.7 to 4.6) | 3 | 1.1 (0.3 to 3.5) | 1 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Anomalous pulmonary venous return | 0 | Not Estimated | 0 | Not Estimated | 0 | Not Estimated | 0 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Left ventricular outflow tract obstruction | 11 | 1.1 (0.5 to 2.1) | 7 | 1.0 (0.4 to 2.5) | 2 | 0.4 (0.1 to 1.6) | 3 | 2.9 (0.8 to 10.9) |
| defects |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Hypoplastic left heart syndrome | 3 | 0.5 (0.1 to 2.0) | 2 | 0.4 (0.1 to 3.0) | 0 | Not Estimated | 1 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Coarctation of the aorta | 6 | 1.8 (0.8 to 4.2) | 4 | 1.9 (0.7 to 5.5) | 1 | Not Estimated | 1 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Aortic stenosis | 2 | 1.2 (0.3 to 4.9) | 1 | Not Estimated | 1 | Not Estimated | 1 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Right ventricular outflow tract obstruction | 14 | 1.7 (0.9 to 3.0) | 7 | 1.4 (0.6 to 3.2) | 7 | 1.5 (0.7 to 3.4) | 4 | 4.6 (1.4 to 15.3) |
| defects |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
| Pulmonary valve stenosis | 12 | 1.7 (0.9 to 3.3) | 7 | 1.7 (0.8 to 3.8) | 6 | 1.5 (0.6 to 3.7) | 3 | 4.2 (1.1 to 16.2) |
|  |  |  |  |  |  |  |  |  |
| Septal defects | 32 | 1.5 (1.0 to 2.3) | 18 | 1.5 (0.8 to 2.5) | 12 | 1.0 (0.5 to 1.9) | 8 | 3.1 (1.2 to 8.0) |
|  |  |  |  |  |  |  |  |  |
| Ventricular septal defect - perimembranous | 15 | 1.6 (0.9 to 2.9) | 6 | 1.2 (0.5 to 2.7) | 7 | 1.3 (0.6 to 2.9) | 4 | 3.7 (1.1 to 12.2) |
|  |  |  |  |  |  |  |  |  |
| Ventricular septal defect - muscular | 4 | 1.1 (0.4 to 3.4) | 3 | 1.0 (0.3 to 3.8) | 2 | 1.1 (0.2 to 5.6) | 0 | Not Estimated |
|  |  |  |  |  |  |  |  |  |
| Atrial septal defect - secundum | 13 | 1.5 (0.8 to 2.8) | 9 | 1.8 (0.9 to 3.8) | 3 | 0.6 (0.2 to 2.0) | 4 | 3.8 (1.2 to 12.6) |
| or not otherwise specified |  |  |  |  |  |  |  |  |
|  |  | |  |  |  |  |  |  |
| \* Multivariable logistic regression models adjusted for maternal age, education, race-ethnicity, periconceptional smoking and periconceptional intake of folic acid | | | | | | | | |
|  |  | |  |  |  |  |  |  |
| supplements. | |  |  |  |  |  |  |  |
|  |  | |  |  |  |  |  |  |
| † Number of cases exposed to solvent | | | | | | | | |