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The Study of Thimerosal and Autism

Documentation and Codebook for the Prenatal Ethylmercury Exposures File:

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This documentation was prepared by Cristofer Price and Yeqin He of Abt Associates Inc. for the Immunization Safety Office (ISO) of the Centers for Disease Control and Prevention (CDC) Atlanta, GA 30333. Questions about the documentation, substantive questions, or technical issues regarding the data file should be directed to the CDC ISO, MS D26, 1600 Clifton Road, Atlanta, Georgia 30333 (404-639-8256).

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Documentation and Codebook for the Prenatal Ethylmercury Exposures File

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1. Introduction to the Prenatal Ethylmercury Exposures File

The Prenatal Ethylmercury Exposures File contains the data that were used to construct the measures of prenatal exposure to ethylmercury from thimerosal-containing vaccines and immune globulin preparations received by study children’s mothers during their pregnancies with the study children. The Prenatal Ethylmercury Exposures File is provided with the public use data in order to make the calculation of exposure amounts transparent, and so that analysts have the potential to calculate alternative measures of exposure¹. For a full description of the creation of the measures prenatal exposure to ethylmercury from thimerosal-containing vaccines and immune globulin preparations received children’s mothers during their pregnancies with the study children, see Section 7.4 of the Technical Report (Volume 1).

¹ For example, a future analyst might want to create a measure that accounts for the pregnancy trimester when thimerosal-containing vaccines or immune globulin preparations were received. Or a future analyst might want to do an analysis where records with particular IG decision codes (Technical Report Section 7.4.3) are omitted from an analyses

2. File Formats and Variable Descriptions

The Prenatal Ethylmercury Exposures File is provided in three formats: 1) ASCII text format, 2) SAS file, and 3) Excel spreadsheet. For analysis purposes, the first two formats are recommended. The excel spreadsheet is provided because it is in a convenient format for visual inspection of the data. There are 1,095 records in the file.

Exhibit 1. Variables Included in the Prenatal Ethylmercury Exposures File

<u>Variable Name</u>	<u>Type</u>	<u>Label</u>	<u>Source^a</u>		<u>Notes^b</u>
			<u>Med. Chrt.</u>	<u>Par. Int.</u>	
Data Management Variables					
<i>ChildID</i>	Num	ChildID for Merging Data Sets			
Cumulative Exposure Variables					
<i>PreNatThimer</i>	Num	Cumulative mercury amount during pregnancy	X	X	Exposure variable used in main analyses
<i>PreNatThimer_Alt</i>	Num	Cumulative mercury amount during pregnancy (alternative)	X	X	Alternative exposure variable. See Vol I, Section 7.4.4 and Vol II Section 11.
Immune Globulin Variables					
<i>DecisionCode_IG</i>	Num	IG Decision code			See Vol. I Section 7.4.3
<i>PN_IG_MatReport</i>	Char	Maternal report of IG receipt during pregnancy		X	In parent interview, mother reported having received an immune globulin during her pregnancy
<i>RhStatus</i>	Num	Mat. Rh blood group 1=rhpos,2=rhNeg,8=Unknown	X		Maternal Rh blood group status
<i>d_IGdate1</i>	Num	Months from IG receipt #1 to birth of child	X		Months from receipt of IG to birth of child (e.g., 1.8 means that IG was received 1.8 months before child was born). Negative values indicate receipt after child was born (e.g., -0.03 means that IG was received 0.03 months after delivery). See Vol. I Section 7.4.3
<i>d_IGdate2</i>	Num	Months from IG receipt #2 to birth of child	X		
<i>d_IGdate3</i>	Num	Months from IG receipt #3 to birth of child	X		
<i>PN_IG1_Product</i>	Char	Type of IG product recieved (IG #1)	X		Final product type (e.g. Rhogam, Michrogam, Gamulin, Hyproh-d) used to determine ethylmercury exposure amount See Vol 1. Section 7.4.4
<i>PN_ProductInfo1</i>	Num	=1 if specific info recorded (IG #1)	X		See Vol 1. Section 7.4.4
<i>PN_IG1_amt</i>	Num	Mercury amount in IG #1			See Vol 1. Section 7.4.4

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			<u>Med. Chrt.</u>	<u>Par. Int.</u>	
<i>PN_IG1_Amt_alt</i>	Num	Alternate Mercury amount assigned for IG #1			See Vol 1. Section 7.4.4
<i>Chrt_IG_Prod1</i>	Char	Original chart text on IG #1 product	X		Original text as recorded in med. chart.
<i>Chrt_IG_Lot1</i>	Char	Original chart text on IG #1 lot number	X		Original text as recorded in med. chart.
<i>Chrt_IG_Mfr1</i>	Char	Original chart text on IG #1 manufacturer	X		Original text as recorded in med. chart.
<i>PN_IG2_Product</i>	Char	Type of IG product recieved (IG #2)	X		2 nd of up to 3 prenatal IGs received. See notes for IG #1.
<i>PN_ProductInfo2</i>	Num	=1 if specific info recorded (IG #2)	X		
<i>PN_IG2_amt</i>	Num	Mercury amount in IG #2			
<i>PN_IG2_Amt_alt</i>	Num	Alternate Mercury amount assigned for IG #2			
<i>Chrt_IG_Prod2</i>	Char	Original chart text on IG #2 product	X		
<i>Chrt_IG_Lot2</i>	Char	Original chart text on IG #2 lot number	X		
<i>Chrt_IG_Mfr2</i>	Char	Original chart text on IG #2 manufacturer label	X		
<i>PN_IG3_Product</i>	Char	Type of IG product recieved (IG #3)	X		3 rd of up to 3 prenatal IGs received. See notes for IG #1.
<i>PN_ProductInfo3</i>	Num	=1 if specific info recorded (IG #3)	X		
<i>PN_IG3_amt</i>	Num	Mercury amount in IG #3			
<i>PN_IG3_Amt_alt</i>	Num	Alternate Mercury amount assigned for IG #3			
Flu Vaccine Variables					
<i>DecisionCode_Flu</i>	Num	Decision code for prenatal flu receipt			See Vol. I Section 7.4.3
<i>PN_FluRecd</i>	Num	=1 if flu received during pregnancy, =0 else	X	X	
<i>PN_FluAmt</i>	Num	Mercury amount in flu receipt			
<i>PN_Flu_MatReport</i>	Char	Maternal report of flu receipt		X	
<i>PN_Flu_MatWhere</i>	Num	Maternal report 1=recvd in HMO, 2=outside HMO,8=DK		X	
<i>PN_Flu_Chart</i>	Num	=1 if med chart indicated flu receipt during pregnancy	X		
<i>d_fludate</i>	Num	Months from flu receipt to birth of child	X		
Rubella Vaccine Variables					
<i>PN_RubAmt</i>	Num	Mercury exposure amount from: Rubella			See Vol. I Section 7.4.4
<i>PN_RubRecd</i>	Num	=1 if recieved during pregnancy: Rubella	X		
<i>d_rubdate</i>	Num	Months from Rubella receipt to birth of child	X		

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			<u>Med. Chrt.</u>	<u>Par. Int.</u>	
<i>rubprod</i>	Char	Chart text: Rubella product	X		
<i>rubman</i>	Char	Chart text: Rubella manufacturer	X		
<i>rublot</i>	Char	Chart text: Rubella lot number	X		
Tetanus – diphtheria Vaccine Variables					
<i>PN_TDAmt</i>	Num	Mercury exposure amount from: TD			See Vol. I Section 7.4.4
<i>PN_TDRecd</i>	Num	=1 if recieved during pregnancy: TD	X		
<i>d_TDdate</i>	Num	Months from TD receipt to birth of child	X		
<i>TDProd</i>	Char	Chart text: TD product	X		
<i>TDman</i>	Char	Chart text: TD manufacturer	X		
<i>TDlot</i>	Char	Chart text: TD lot number	X		
Tetanus Vaccine Variables					
<i>PN_TETAmt</i>	Num	Mercury exposure amount from: Tetanus			See Vol. I Section 7.4.4
<i>PN_tetrecd</i>	Num	=1 if recieved during pregnancy: Tetanus	X		
<i>d_tetdate</i>	Num	Months from Tetanus receipt to birth of child	X		
<i>tetProd</i>	Char	Chart text: Tetanus product	X		
<i>tetman</i>	Char	Chart text: Tetanus manufacturer	X		
<i>tetlot</i>	Char	Chart text: Tetanus lot number	X		
Hepatitis B Vaccine Variables					
<i>PN_HepBAmt</i>	Num	Mercury exposure amount from: HepB			See Vol. I Section 7.4.4
<i>PN_HepBrecd</i>	Num	=1 if recieved during pregnancy: HepB	X		
<i>d_hepBdate</i>	Num	Months from HepB receipt to birth of child	X		
<i>hepbProd</i>	Char	Chart text: HepB product	X		
<i>hepbman</i>	Char	Chart text: HepB manufacturer	X		
<i>hepblot</i>	Char	Chart text: HepB lot number	X		
Pneumococcal Vaccine Variables					
<i>PN_PneuAmt</i>	Num	Mercury exposure amount from: Pneumococcal			See Vol. I Section 7.4.4
<i>PN_pneurecd</i>	Num	=1 if recieved during pregnancy: Pneumococcal	X		
<i>d_pneudate</i>	Num	Months from Pneumococcal receipt to birth of child	X		
<i>pneuProd</i>	Char	Chart text: Pneumococcal product	X		
<i>pneuman</i>	Char	Chart text: Pneumococcal manufacturer	X		

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			<u>Med. Chrt.</u>	<u>Par. Int.</u>	
<i>pneulot</i>	Char	Chart text: Pneumococcal lot number	X		
Meningococcal Vaccine Variables					
<i>PN_MenAmt</i>	Num	Mercury exposure amount from: Meningococcal			See Vol. I Section 7.4.4
<i>PN_menrecd</i>	Num	=1 if recieved during pregnancy: Meningococcal	X		
<i>d_mendate</i>	Num	Months from Meningococcal receipt to birth of child	X		
<i>menProd</i>	Char	Chart text: Meningococcal product	X		
<i>menman</i>	Char	Chart text: Meningococcal manufacturer	X		
<i>menlot</i>	Char	Chart text: Meningococcal lot number	X		
Rabies Vaccine Variables					
<i>PN_rabAmt</i>	Num	Mercury exposure amount from: Rabies			See Vol. I Section 7.4.4
<i>PN_rabrecd</i>	Num	=1 if recieved during pregnancy: Rabies			
<i>d_rabdate</i>	Num	Months from Rabies receipt to birth of child	X		
<i>rabProd</i>	Char	Chart text: Rabies product	X		
<i>rabman</i>	Char	Chart text: Rabies manufacturer	X		
<i>rablot</i>	Char	Chart text: Rabies lot number	X		
Other Vaccine Variables					
<i>PN_OthvAmt</i>	Num	Mercury exposure amount from: Other Vaccine			See Vol. I Section 7.4.4
<i>PN_othvrecd</i>	Num	=1 if recieved during pregnancy: Other Vaccine	X		
<i>d_othvdate</i>	Num	Months from Other Vaccine receipt to birth of child	X		
<i>othvProd</i>	Char	Chart text: Other Vaccine product	X		
<i>othvman</i>	Char	Chart text: Other Vaccine manufacturer	X		
<i>othvlot</i>	Char	Chart text: Other Vaccine lot number	X		

^a Data Source: Medical chart abstraction, or reported by mother as part of parent interview.

^b Vol I and Vol II and section numbers correspond to Technical Reports Volumes I and II (Price et al, 2009), which are included with this data set.