

**Table 1: Abbreviations for Dioxin, Furan and Coplaner PCB Congeners and Congener Classes**

<i>Abbreviations for congener classes and specific congeners</i>	<i>Names for congener classes and specific congeners</i>
PCDDs	Polychlorinated Dibenzo-p-dioxins
	2,3,7,8-Tetrachlorodibenzo-p-dioxin
2378D	
12378D	1,2,3,7,8-Pentachlorodibenzo-p-dioxin
1234/678D	1,2,3,4,7,8- and 1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin (combined)
123789D	1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin
1234678D	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin
1234679D	1,2,3,4,6,7,9-Heptachlorodibenzo-p-dioxin
PCDDs	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin
PCDFs	Polychlorinated Dibenzofurans
	2,3,7,8-Tetrachlorodibenzofuran
2378F	1,2,3,7,8-Pentachlorodibenzofuran
12378F	2,3,4,7,8-Pentachlorodibenzofuran
23478F	1,2,3,4,7,8- and 1,2,3,6,7,8-Hexachlorodibenzofuran (combined)
1234/678F	
123789F	1,2,3,7,8,9-Hexachlorodibenzofuran
234678F	2,3,4,6,7,8-Hexachlorodibenzofuran
1234678F	1,2,3,4,6,7,8-Heptachlorodibenzofuran
1234789F	1,2,3,4,7,8,9-Heptachlorodibenzofuran
OCDF	1,2,3,4,6,7,8,9-Octachlorodibenzofuran
Coplaner PCBs	Coplaner Polychlorinated biphenyls
	2,3,4,4',5'-Pentachlorobiphenyl (PCB 114)
23445P	2,3,3',4,4'-Pentachlorobiphenyl (PCB 105)
23344P	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 156)
233445P	2,3,3',4,4',5'-Hexachlorobiphenyl (PCB 157)
233445P	3,3',4,4'-Tetrachlorobiphenyl (PCB 77)
3344P	

<i>Abbreviations for congener classes and specific congeners</i>	<i>Names for congener classes and specific congeners</i>
	3,4,4',5-Tetrachlorobiphenyl (PCB 81)
3445P	3,3',4,4',5-Pentachlorobiphenyl (PCB 126)
33445P	3,3',4,4',5,5'-Hexachlorobiphenyl (PCB 169)
334455P	

**Table 2: Descriptive characteristics of exposure investigation participants**

	<i>Females</i>		<i>Males</i>		<i>All Subjects</i>	
	N	%	N	%	N	%
Age (years)						
15-29	2	22.2	0	0.0	2	9.1
30-44	0	0.0	3	23.1	3	13.6
45-59	2	22.2	4	30.7	6	27.3
≥ 60	5	55.6	6	46.2	11	50.0
BMI (kg/m <sup>2</sup> )						
< 25.0	1	11.1	2	15.3	3	13.6
≥ 25.0	8	88.9	11	84.7	19	86.4
Length of Residence in Calcasieu Parish (years)						
< 10	0	0.0	0	0.0	0	0.0
10 – 30	2	22.2	1	7.7	3	13.6
31 – 50	3	33.3	6	46.2	9	40.9
51 – 70	3	33.3	5	28.5	8	36.4
≥ 71	1	11.1	1	7.7	2	9.1
Local Fish Consumption						
Yes	6	66.7	7	54.8	13	59.1
No	3	33.3	6	46.2	9	40.9
Local Crawfish Consumption						
Yes	6	66.7	9	69.2	15	68.2
No	3	33.3	4	30.8	7	31.8

**Table 3: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Sex**

<i>Congener</i>	<i>WHO TEF</i>	<i>Females (n=9)</i>		<i>Males (n=13)</i>		<i>All subjects (n=22)</i>	
		Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid
<i>PCDDs</i>							
2378D	1	10.72 (1.9-25.5)	10.7 (8.3)	4.38 (0.0-10.6)	4.4 (2.7)	6.98 (0.0-25.5)	7.0 (6.4)
12378D	1	42.76 (2.4-139.0)	42.8 (42.1)	14.51 (0.0-44.0)	14.5 (11.2)	26.06 (0.0-139.0)	26.1 (30.8)
1234/678D	0.1	184.11 (13.8-524.0)	18.4 (16.1)	86.42 (18.0-231.7)	8.6 (5.7)	126.38 (13.8-524.0)	12.6 (11.9)
123789D	0.1	22.41 (4.4-49.9)	2.2 (1.7)	8.76 (2.4-24.9)	0.9 (0.6)	14.35 (2.4-49.9)	1.4 (1.3)
1234678D	0.01	110.94 (24.4-243.0)	1.1 (0.7)	66.06 (7.6-318.0)	0.7 (0.8)	84.42 (7.6-318.0)	0.8 (0.8)
1234679D	0	1.26 (0.5-4.9)	0.0 (0.0)	0.73 (0.0-1.9)	0.0 (0.0)	0.95 (0.0-4.9)	0.0 (0.0)
OCDD	0.0001	938.33 (395.0-1540.0)	0.1 (0.0)	586.92 (206.0-2580.0)	0.1 (0.1)	730.68 (206.0-2580.0)	0.1 (0.1)
<i>PCDFs</i>							
2378F	0.1	0.00 (0.0-0.0)	0.0 (0.0)	0.17 (0.0-2.2)	0.0 (0.0)	0.10 (0.0-2.2)	0.0 (0.0)
12378F	0.05	0.22 (0.0-0.7)	0.0 (0.0)	0.55 (0.0-1.7)	0.0 (0.0)	0.42 (0.0-1.7)	0.0 (0.0)
23478F	0.5	12.13 (2.4-26.9)	6.1 (4.6)	10.32 (2.6-41.4)	5.2 (5.0)	11.06 (2.4-41.4)	5.5 (4.7)
1234/678F	0.1	20.46 (4.9-41.7)	2.0 (1.3)	23.07 (5.1-84.6)	2.3 (2.4)	22.00 (4.9-84.6)	2.2 (2.0)
123789F	0.1	0.01 (0.0-0.1)	0.0 (0.0)	0.03 (0.0-0.2)	0.0 (0.0)	0.02 (0.0-0.2)	0.0 (0.0)
234678F	0.1	2.06 (0.0-4.8)	0.2 (0.2)	2.28 (0.0-12.2)	0.2 (0.3)	2.19 (0.0-12.2)	0.2 (0.3)
1234678F	0.01	12.84 (6.0-19.3)	0.1 (0.0)	15.71 (4.0-72.5)	0.2 (0.2)	14.54 (4.0-72.5)	0.1 (0.2)
1234789F	0.01	0.03 (0.0-0.3)	0.0 (0.0)	0.16 (0.0-1.1)	0.0 (0.0)	0.11 (0.0-1.1)	0.0 (0.0)
<i>Coplanar PCBs</i>							
3445P	0.0001	0.89 (0.0-2.2)	0.0 (0.0)	1.48 (0.0-9.7)	0.0 (0.0)	1.24 (0.0-9.7)	0.0 (0.0)
33445P	0.1	57.10 (0.0-195.0)	5.7 (6.4)	36.52 (0.0-107.0)	3.7 (3.1)	44.94 (0.0-195.0)	4.5 (4.7)
334455P	0.01	40.84 (5.1-105.0)	0.4 (0.3)	42.64 (11.7-127.0)	0.4 (0.3)	41.90 (5.1-127.0)	0.4 (0.3)
Total		1457.12 (504.9-2619.6)	89.9 (76.8)	900.72 (258.6-3630.3)	41.1 (30.2)	1128.34 (258.6-3630.3)	61.0 (58.1)

**Table 4: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Cohort**

<i>Congener</i>	<i>WHO TEF</i>	<i>1997 cohort (n=5)</i>		<i>1998 cohort (n=17)</i>		<i>All subjects (n=22)</i>	
		Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid
<i>PCDDs</i>							
2378D	1	3.64 (0.0-5.9)	3.6 (2.3)	7.96 (1.4-25.5)	8.0 (6.9)	6.98 (0.0-25.5)	7.0 (6.4)
12378D	1	11.76 (0.0-22.2)	11.8 (8.4)	30.27 (2.4-139.0)	30.3 (33.8)	26.06 (0.0-139.0)	26.1 (30.8)
1234/678D	0.1	78.66 (18.0-140.1)	7.9 (4.4)	140.42 (13.8-524.0)	14.0 (13.1)	126.38 (13.8-524.0)	12.6 (11.9)
123789D	0.1	8.40 (2.7-12.1)	0.8 (0.4)	16.09 (2.4-49.9)	1.6 (1.5)	14.35 (2.4-49.9)	1.4 (1.3)
1234678D	0.01	56.02 (7.6-100.0)	0.6 (0.4)	92.78 (11.6-318.0)	0.9 (0.9)	84.42 (7.6-318.0)	0.8 (0.8)
1234679D	0	0.78 (0.6-0.9)	0.0 (0.0)	0.99 (0.0-4.9)	0.0 (0.0)	0.95 (0.0-4.9)	0.0 (0.0)
OCDD	0.0001	411.2 (206.0-710.0)	0.0 (0.0)	824.65 (219.0-2580.0)	0.1 (0.1)	730.68 (206.0-2580.0)	0.1 (0.1)
<i>PCDFs</i>							
2378F	0.1	0.00 (0.0-0.0)	0.0 (0.0)	0.13 (0.0-2.2)	0.0 (0.0)	0.10 (0.0-2.2)	0.0 (0.0)
12378F	0.05	0.64 (0.0-1.3)	0.0 (0.0)	0.35 (0.0-1.7)	0.0 (0.0)	0.42 (0.0-1.7)	0.0 (0.0)
23478F	0.5	8.76 (2.6-16.1)	4.4 (2.4)	11.74 (2.4-41.4)	5.9 (5.2)	11.06 (2.4-41.4)	5.5 (4.7)
1234/678F	0.1	25.78 (5.1-65.9)	2.6 (2.4)	20.89 (4.9-84.6)	2.1 (2.0)	22.00 (4.9-84.6)	2.2 (2.0)
123789F	0.1	0.02 (0.0-0.1)	0.0 (0.0)	0.02 (0.0-0.2)	0.0 (0.0)	0.02 (0.0-0.2)	0.0 (0.0)
234678F	0.1	1.76 (0.0-3.6)	0.2 (0.1)	2.31 (0.0-12.2)	0.2 (0.3)	2.19 (0.0-12.2)	0.2 (0.3)
1234678F	0.01	19.38 (4.0-72.5)	0.2 (0.3)	13.11 (6.0-44.7)	0.1 (0.1)	14.54 (4.0-72.5)	0.1 (0.2)
1234789F	0.01	0.10 (0.0-0.5)	0.0 (0.0)	0.11 (0.0-1.1)	0.0 (0.0)	0.11 (0.0-1.1)	0.0 (0.0)
<i>Coplanar PCBs</i>							
3445P	0.0001	0.90 (0.0-1.6)	0.0 (0.0)	1.34 (0.0-9.7)	0.0 (0.0)	1.24 (0.0-9.7)	0.0 (0.0)
33445P	0.1	32.44 (0.0-58.6)	3.2 (2.4)	48.62 (0.0-195.0)	4.9 (5.2)	44.94 (0.0-195.0)	4.5 (4.7)
334455P	0.01	37.36 (11.7-69.9)	0.4 (0.2)	43.24 (5.1-127.0)	0.4 (0.3)	41.90 (5.1-127.0)	0.4 (0.3)
Total		697.6 (258.6-990.7)	35.7 (20.9)	1255.02 (306.2-3630.3)	68.5 (63.7)	1128.34 (258.6-3630.3)	61.0 (58.1)

**Table 5: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Sex in the 1998 Cohort**

<i>Congener</i>	<i>WHO TEF</i>	<i>Females in the 1998 cohort (n=9)</i>		<i>Males in the 1998 cohort (n=8)</i>		<i>All subjects in the 1998 cohort (n=17)</i>	
		Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid
<i>PCDDs</i>							
2378D	1	10.72 (1.9-25.5)	10.7 (8.3)	4.85 (1.4-10.6)	4.9 (3.0)	7.96 (1.4-25.5)	8.0 (6.9)
12378D	1	42.76 (2.4-139.0)	42.8 (42.1)	16.23 (4.5-44.0)	16.2 (12.9)	30.27 (2.4-139.0)	30.3 (33.8)
1234/678D	0.1	184.11 (13.8-524.0)	18.4 (16.1)	91.26 (25.4-231.7)	9.1 (6.7)	140.42 (13.8-524.0)	14.0 (13.1)
123789D	0.1	22.41 (4.4-49.9)	2.2 (1.7)	8.99 (2.4-24.9)	0.9 (0.7)	16.09 (2.4-49.9)	1.6 (1.5)
1234678D	0.01	110.94 (24.4-243.0)	1.1 (0.7)	72.34 (11.6-318.0)	0.7 (1.0)	92.78 (11.6-318.0)	0.9 (0.9)
1234679D	0	1.26 (0.5-4.9)	0.0 (0.0)	0.70 (0.0-1.9)	0.0 (0.0)	0.99 (0.0-4.9)	0.0 (0.0)
OCDD	0.0001	938.33 (395.0-1540.0)	0.1 (0.0)	696.75 (219.0-2580.0)	0.0 (0.0)	824.65 (219.0-2580.0)	0.1 (0.1)
<i>PCDFs</i>							
2378F	0.1	0.00 (0.0-0.0)	0.0 (0.0)	0.28 (0.0-2.2)	0.0 (0.0)	0.13 (0.0-2.2)	0.0 (0.0)
12378F	0.05	0.22 (0.0-0.7)	0.0 (0.0)	0.50 (0.0-1.7)	0.0 (0.0)	0.35 (0.0-1.7)	0.0 (0.0)
23478F	0.5	12.13 (2.4-26.9)	6.1 (4.6)	11.30 (4.1-41.4)	5.7 (6.2)	11.74 (2.4-41.4)	5.9 (5.2)
1234/678F	0.1	20.46 (4.9-41.7)	2.0 (1.3)	21.38 (6.9-84.6)	2.1 (2.6)	20.89 (4.9-84.6)	2.1 (2.0)
123789F	0.1	0.01 (0.0-0.1)	0.0 (0.0)	0.04 (0.0-0.2)	0.0 (0.0)	0.02 (0.0-0.2)	0.0 (0.0)
234678F	0.1	2.06 (0.0-4.8)	0.2 (0.2)	2.60 (0.0-12.2)	0.3 (0.4)	2.31 (0.0-12.2)	0.2 (0.3)
1234678F	0.01	12.84 (6.0-19.3)	0.1 (0.0)	13.41 (6.1-44.7)	0.1 (0.1)	13.11 (6.0-44.7)	0.1 (0.1)
1234789F	0.01	0.03 (0.0-0.3)	0.0 (0.0)	0.20 (0.0-1.1)	0.0 (0.0)	0.11 (0.0-1.1)	0.0 (0.0)
<i>Coplanar PCBs</i>							
3445P	0.0001	0.89 (0.0-2.2)	0.0 (0.0)	1.84 (0.0-9.7)	0.0 (0.0)	1.34 (0.0-9.7)	0.0 (0.0)
33445P	0.1	57.10 (30.9-195.0)	5.7 (6.4)	39.08 (6.6-107.0)	3.9 (3.6)	48.62 (0.0-195.0)	4.9 (5.2)
334455P	0.01	40.84 (5.1-105.0)	0.4 (0.3)	45.94 (14.1-127.0)	0.5 (0.4)	43.24 (5.1-127.0)	0.4 (0.3)
Total		1457.12 (504.9-2619.6)	89.9 (76.8)	1027.66 (306.2-3630.3)	44.4 (35.8)	1255.02 (306.2-3630.3)	68.5 (63.7)

**Table 6: Change in Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Participants**

<i>Congener</i>	<i>WHO TEF</i>	<i>1997/1998 sampling</i>		<i>2001 sampling</i>		<i>Change between 1997/1998 and 2001 sampling</i>	
		Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration (range), pg/g lipid	Mean WHO-TEQ (SD), pg TEQ/g lipid	Mean concentration change, pg/g lipid	Mean WHO-TEQ change, pg TEQ/g lipid
<i>PCDDs</i>							
2378D	1	7.02 (0.0-20.2)	7.0 (5.7)	6.98 (0.0-25.5)	7.0 (6.4)	- 0.04	0.0
12378D	1	26.26 (0.0-92.0)	26.3 (24.0)	26.06 (0.0-139.0)	26.1 (30.8)	- 0.20	- 0.2
1234/678D	0.1	119.83 (12.9-327.0)	12.0 (9.0)	126.38 (13.8-524.0)	12.6 (11.9)	+ 6.55	+ 0.6
123789D	0.1	15.75 (2.0-37.4)	1.6 (1.2)	14.35 (2.4-49.9)	1.4 (1.3)	- 1.40	- 0.2
1234678D	0.01	105.85 (18.3-458.0)	1.1 (1.0)	84.42 (7.6-318.0)	0.8 (0.8)	- 21.43	- 0.3
1234679D	0	3.39 (0.0-18.0)	0.0 (0.0)	0.95 (0.0-4.9)	0.0 (0.0)	- 2.44	0.0
OCDD	0.0001	939.55 (143.9-2970.0)	0.1 (0.1)	730.68 (206.0-2580.0)	0.1 (0.1)	- 208.87	0.0
<i>PCDFs</i>							
2378F	0.1	0.43 (0.0-2.4)	0.0 (0.1)	0.10 (0.0-2.2)	0.0 (0.0)	- 0.33	0.0
12378F	0.05	0.25 (0.0-3.0)	0.0 (0.0)	0.42 (0.0-1.7)	0.0 (0.0)	+ 0.17	0.0
23478F	0.5	10.36 (0.0-45.6)	5.2 (4.9)	11.06 (2.4-41.4)	5.5 (4.7)	+ 0.70	+ 0.3
1234/678F	0.1	24.02 (3.0-111.0)	2.4 (2.8)	22.00 (4.9-84.6)	2.2 (2.0)	- 2.02	- 0.2
123789F	0.1	0.99 (0.0-5.4)	0.1 (0.2)	0.02 (0.0-0.2)	0.0 (0.0)	- 0.97	- 0.1
234678F	0.1	2.78 (0.0-18.3)	0.3 (0.4)	2.19 (0.0-12.2)	0.2 (0.3)	- 0.59	- 0.1
1234678F	0.01	29.30 (5.8-208.8)	0.3 (0.4)	14.54 (4.0-72.5)	0.1 (0.2)	- 14.76	- 0.2
1234789F	0.01	0.50 (0.0-3.4)	0.0 (0.0)	0.11 (0.0-1.1)	0.0 (0.0)	- 0.39	0.0
<i>Coplanar PCBs</i>							
3445P	0.0001	0.68 (0.0-10.1)	0.0 (0.0)	1.24 (0.0-9.7)	0.0 (0.0)	+ 0.56	0.0
33445P	0.1	54.59 (7.9-186.0)	5.5 (4.7)	44.94 (0.0-195.0)	4.5 (4.7)	- 9.65	- 1.0
334455P	0.01	39.36 (0.0-138.0)	0.4 (0.3)	41.90 (5.1-127.0)	0.4 (0.3)	+ 2.54	0.0
Total		1380.91 (241.5-4371.0)	62.5 (48.5)	1128.34 (258.6-3630.3)	61.0 (58.1)	- 252.57	- 1.5

**Table 7: Wilcoxon Sign Rank Test and Paired T-test for Decreases in Serum Congener Concentration by Cohort**

<i>Congener</i>	<i>1997 cohort</i>		<i>1998 cohort</i>		<i>All Participants</i>	
	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test
<i>PCDDs</i>						
2378D	↓	↓			↓	
12378D	↓	↓	↓	↓	↓	↓
1234/678D		↓				↓
123789D			↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓
1234678D	↓	↓	↓ <sup>++</sup>	↓ <sup>++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
1234679D	N/A	N/A	↓ <sup>+++</sup>	↓ <sup>+++</sup>	N/A	N/A
OCDD	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>
<i>PCDFs</i>						
2378F	↓ <sup>+</sup>	↓ <sup>++</sup>	↓ <sup>++</sup>	↓ <sup>++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
12378F			↓	↓		↓
23478F						
1234/678F	↓	↓	↓		↓	
123789F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
234678F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>
1234678F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
1234789F	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>++</sup>	↓ <sup>+</sup>
<i>Coplaner PCBs</i>						
3445P	N/A	N/A		↓ <sup>+++</sup>	N/A	N/A
33445P	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>++</sup>	↓ <sup>+++</sup>
334455P	↓	↓	↓	↓	↓	
Total Concentration	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>
Total TEQ	↓	↓	↓	↓	↓	↓

<sup>+</sup>p≤0.05; <sup>++</sup>p ≤ 0.01; <sup>+++</sup>p≤ 0.001; N/A, not analyzed



**Table 8: Wilcoxon Sign Rank Test and Paired T-test for Increases in Serum Congener Concentration by Cohort**

<i>Congener</i>	<i>1997 cohort</i>		<i>1998 cohort</i>		<i>All Participants</i>	
	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test
<i>PCDDs</i>						
2378D			↑	↑		↑
12378D						
1234/678D	↑		↑	↑	↑	
123789D	↑	↑				
1234678D						
1234679D	N/A	N/A			N/A	N/A
OCDD						
<i>PCDFs</i>						
2378F						
12378F	↑	↑			↑	
23478F	↑ <sup>+</sup>	↑	↑	↑	↑	↑
1234/678F				↑		↑
123789F						
234678F						
1234678F						
1234789F						
<i>Coplaner PCBs</i>						
3445P	N/A	N/A	↑ <sup>++</sup>		N/A	N/A
33445P						
334455P						↑
Total Concentration						
Total TEQ						

<sup>+</sup>p<0.05; <sup>++</sup>p ≤ 0.01; <sup>+++</sup>p≤ 0.001; N/A, not analyzed

**Table 9: Wilcoxon Sign Rank Test and Paired T-test for Decreases in Serum Congener Concentration by Cohort and Sex**

<i>Congener</i>	<i>1997 males</i>		<i>1998 males</i>		<i>1998 females</i>		<i>All Participants</i>	
	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test
<i>PCDDs</i>								
2378D	↓	↓					↓	
12378D	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>			↓	↓
1234/678D		↓	↓			↓		↓
123789D			↓ <sup>+</sup>	↓ <sup>+</sup>			↓	↓
1234678D	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
1234679D	N/A	N/A	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+</sup>	↓ <sup>+++</sup>	N/A	N/A
OCDD	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>
<i>PCDFs</i>								
2378F	↓ <sup>+</sup>	↓ <sup>++</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>		↓	↓ <sup>+++</sup>	↓ <sup>+++</sup>
12378F			↓	↓		↓		↓
23478F			↓	↓				
1234/678F	↓	↓	↓	↓			↓	
123789F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
234678F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>
1234678F	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>+</sup>	↓ <sup>++</sup>	↓	↓ <sup>+</sup>	↓ <sup>+++</sup>	↓ <sup>+++</sup>
1234789F	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓	↓ <sup>++</sup>	↓ <sup>+</sup>
<i>Coplaner PCBs</i>								
3445P	N/A	N/A	↓ <sup>+</sup>	↓ <sup>+</sup>			N/A	N/A
33445P	↓	↓ <sup>+</sup>	↓	↓	↓	↓	↓ <sup>++</sup>	↓ <sup>+++</sup>
334455P	↓	↓	↓	↓			↓	
Total Concentration	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>	↓	↓	↓ <sup>+</sup>	↓ <sup>+</sup>
Total TEQ	↓	↓	↓	↓			↓	↓

<sup>+</sup>p≤0.05; <sup>++</sup>p ≤ 0.01; <sup>+++</sup>p≤ 0.001; N/A, not analyzed

**Table 10: Wilcoxon Sign Rank Test and Paired T-test for Increases in Serum Congener Concentration by Cohort and Sex**

<i>Congener</i>	<i>1997 males</i>		<i>1998 males</i>		<i>1998 females</i>		<i>All Participants</i>	
	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test	Wilcoxon	Paired t-test
<i>PCDDs</i>								
2378D			↑	↑	↑	↑		↑
12378D					↑	↑		
1234/678D	↑			↑			↑	
123789D	↑	↑			↑	↑		
1234678D								
1234679D	N/A	N/A					N/A	N/A
OCDD								
<i>PCDFs</i>								
2378F					↑			
12378F	↑	↑			↑		↑	
23478F	↑+	↑			↑+	↑	↑	↑
1234/678F					↑++	↑+		↑
123789F								
234678F								
1234678F								
1234789F								
<i>Coplaner PCBs</i>								
3445P	N/A	N/A			↑	↑	N/A	N/A
33445P								
334455P					↑++	↑++		↑
Total Concentration								
Total TEQ					↑	↑		

↑p≤0.05; ++p ≤ 0.01; +++p≤ 0.001; N/A, not analyzed

**Table 11: Mean WHO-TEQs and Percent Contribution to the Total TEQ by Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Sex**

<i>Congener</i>	<i>Females (n=9)</i>		<i>Males (n=13)</i>		<i>All subjects (n=22)</i>	
	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ
<i>PCDDs</i>						
2378D	10.7	11.9	4.4	10.7	7.0	11.4
12378D	42.8	47.6	14.5	35.3	26.1	42.7
1234/678D	18.4	20.5	8.6	21.0	12.6	20.7
123789D	2.2	2.5	0.9	2.1	1.4	2.4
1234678D	1.1	1.2	0.7	1.6	0.8	1.4
1234679D	0.0	0.0	0.0	0.0	0.0	0.0
OCDD	0.1	0.1	0.1	0.1	0.1	0.1
<i>PCDFs</i>						
2378F	0.0	0.0	0.0	0.0	0.0	0.0
12378F	0.0	0.0	0.0	0.0	0.0	0.0
23478F	6.1	6.7	5.2	12.6	5.5	9.1
1234/678F	2.0	2.3	2.3	5.6	2.2	3.6
123789F	0.0	0.0	0.0	0.0	0.0	0.0
234678F	0.2	0.2	0.2	0.6	0.2	0.4
1234678F	0.1	0.1	0.2	0.4	0.1	0.2
1234789F	0.0	0.0	0.0	0.0	0.0	0.0
<i>Coplanar PCBs</i>						
3445P	0.0	0.0	0.0	0.0	0.0	0.0
33445P	5.7	6.4	3.7	8.9	4.5	7.4
334455P	0.4	0.5	0.4	1.0	0.4	0.7
Total	89.9	100.0	41.1	100.0	61.0	100.0

**Table 12: Mean WHO-TEQs and Percent Contribution to the Total TEQ by Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Cohort**

<i>Congener</i>	<i>1997 cohort (n=5)</i>		<i>1998 cohort (n=17)</i>		<i>All subjects (n=22)</i>	
	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ
<i>PCDDs</i>						
2378D	3.6	10.2	8.0	11.6	7.0	11.4
12378D	11.8	32.9	30.3	44.2	26.1	42.7
1234/678D	7.9	22.0	14.0	20.5	12.6	20.7
123789D	0.8	2.4	1.6	2.3	1.4	2.4
1234678D	0.6	1.6	0.9	1.4	0.8	1.4
1234679D	0.0	0.0	0.0	0.0	0.0	0.0
OCDD	0.0	0.1	0.1	0.1	0.1	0.1
<i>PCDFs</i>						
2378F	0.0	0.0	0.0	0.0	0.0	0.0
12378F	0.0	0.0	0.0	0.0	0.0	0.0
23478F	4.4	12.3	5.9	8.6	5.5	9.1
1234/678F	2.6	7.2	2.1	3.0	2.2	3.6
123789F	0.0	0.0	0.0	0.0	0.0	0.0
234678F	0.2	0.5	0.2	0.3	0.2	0.4
1234678F	0.2	0.5	0.1	0.2	0.1	0.2
1234789F	0.0	0.0	0.0	0.0	0.0	0.0
<i>Coplanar PCBs</i>						
3445P	0.0	0.0	0.0	0.0	0.0	0.0
33445P	3.2	9.1	4.9	7.1	4.5	7.4
334455P	0.4	1.1	0.4	0.6	0.4	0.7
Total	35.7	100.0	68.5	100.0	61.0	100.0

**Table 13: Mean WHO-TEQs and Percent Contribution to the Total TEQ by Dioxin, Furan, and Coplanar PCB Congeners in Serum of 2001 Exposure Investigation Participants by Sex in the 1998 Cohort**

<i>Congener</i>	<i>Females in the 1998 cohort (n=9)</i>		<i>Males in the 1998 cohort (n=8)</i>		<i>All subjects in the 1998 cohort (n=17)</i>	
	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ
<i>PCDDs</i>						
2378D	10.7	11.9	4.9	10.9	8.0	11.6
12378D	42.8	47.6	16.2	36.5	30.3	44.2
1234/678D	18.4	20.5	9.1	20.6	14.0	20.5
123789D	2.2	2.5	0.9	2.0	1.6	2.3
1234678D	1.1	1.2	0.7	1.6	0.9	1.4
1234679D	0.0	0.0	0.0	0.0	0.0	0.0
OCDD	0.1	0.1	0.1	0.2	0.1	0.1
<i>PCDFs</i>						
2378F	0.0	0.0	0.0	0.0	0.0	0.0
12378F	0.0	0.0	0.0	0.0	0.0	0.0
23478F	6.1	6.7	5.7	12.7	5.9	8.6
1234/678F	2.0	2.3	2.1	4.8	2.1	3.0
123789F	0.0	0.0	0.0	0.0	0.0	0.0
234678F	0.2	0.2	0.3	0.6	0.2	0.3
1234678F	0.1	0.1	0.1	0.3	0.1	0.2
1234789F	0.0	0.0	0.0	0.0	0.0	0.0
<i>Coplanar PCBs</i>						
3445P	0.0	0.0	0.0	0.0	0.0	0.0
33445P	5.7	6.4	3.9	8.8	4.9	7.1
334455P	0.4	0.5	0.5	1.0	0.4	0.6
Total	89.9	100.0	44.4	100.0	68.5	100.0

**Table 14: Change in Mean WHO-TEQs and Percent Contribution to the Total TEQ by Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Participants**

<i>Congener</i>	<i>1997/1998 sampling</i>		<i>2001 sampling</i>		<i>Changes between 1997/1998 and 2001 sampling</i>	
	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to total TEQ	Mean WHO-TEQ change, pg TEQ/g lipid	Percent change in TEQ
<i>PCDDs</i>						
2378D	7.0	11.2	7.0	11.4	0.0	0.0
12378D	26.3	42.1	26.1	42.7	- 0.2	- 0.8
1234/678D	12.0	19.2	12.6	20.7	+ 0.6	+ 5.0
123789D	1.6	2.6	1.4	2.4	- 0.2	- 12.5
1234678D	1.1	1.8	0.8	1.4	- 0.3	- 27.3
1234679D	0.0	0.0	0.0	0.0	0.0	0.0
OCDD	0.1	0.2	0.1	0.1	0.0	0.0
<i>PCDFs</i>						
2378F	0.0	0.1	0.0	0.0	0.0	0.0
12378F	0.0	0.0	0.0	0.0	0.0	0.0
23478F	5.2	8.3	5.5	9.1	+ 0.3	+ 5.5
1234/678F	2.4	3.8	2.2	3.6	- 0.2	- 8.3
123789F	0.1	0.2	0.0	0.0	- 0.1	- 100.0
234678F	0.3	0.5	0.2	0.4	- 0.1	- 33.3
1234678F	0.3	0.5	0.1	0.2	- 0.2	- 66.6
1234789F	0.0	0.0	0.0	0.0	0.0	0.0
<i>Coplanar PCBs</i>						
3445P	0.0	0.0	0.0	0.0	0.0	0.0
33445P	5.5	8.8	4.5	7.4	- 1.0	- 18.2
334455P	0.4	0.6	0.4	0.7	0.0	0.0
Total	62.5	100.0	61.0	100.0	- 1.5	- 2.4

**Table 15: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Environmental Samples**

<i>Congener</i>	<i>WHO TEF</i>	<i>Surface soil (n=20)</i>		<i>Indoor dust (n=18)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
<i>PCDDs</i>					
2378D	1	0.07 (0.0-0.7)	0.1 (0.2)	0.06 (0.0-0.7)	0.1 (0.2)
12378D	1	0.51 (0.0-4.3)	0.5 (1.0)	0.49 (0.0-1.6)	0.5 (0.7)
1234/678D	0.1	4.55 (0.1-22.4)	0.5 (0.6)	16.70 (0.0-76.8)	1.7 (2.2)
123789D	0.1	2.51 (0.0-21.2)	0.3 (0.5)	4.22 (0.0-14.4)	0.4 (0.4)
1234678D	0.01	88.82 (2.6-349.4)	0.9 (1.1)	796.08 (23.1-5369.1)	8.0 (13.8)
OCDD	0.0001	1012.32 (39.6-6034.1)	0.1 (0.1)	6949.60 (286.1-29438.8)	0.7 (0.8)
<i>PCDFs</i>					
2378F	0.1	0.33 (0.0-1.7)	0.0 (0.1)	1.22 (0.0-6.7)	0.1 (0.2)
12378F	0.05	0.31 (0.0-2.0)	0.0 (0.0)	0.52 (0.0-3.3)	0.0 (0.1)
23478F	0.5	0.68 (0.0-3.2)	0.0 (0.0)	1.25 (0.0-6.5)	0.6 (1.0)
1234/678F	0.1	2.54 (0.0-13.4)	0.3 (0.3)	8.81 (0.0-26.9)	0.9 (0.9)
123789F	0.1	0.08 (0.0-0.4)	0.0 (0.0)	0.16 (0.0-1.4)	0.0 (0.0)
234678F	0.1	1.30 (0.0-6.6)	0.1 (0.2)	5.05 (0.0-14.0)	0.5 (0.5)
1234678F	0.01	25.13 (0.5-133.5)	0.3 (0.3)	118.78 (0.0-385.9)	1.2 (1.4)
1234789F	0.01	1.21 (0.0-6.3)	0.0 (0.0)	7.87 (0.0-38.4)	0.1 (0.1)
OCDF	0.0001	46.06 (0.5-213.5)	0.0 (0.0)	357.67 (12.7-1747.5)	0.0 (0.1)
<i>Coplanar PCBs</i>					
23445P	0.0001	624.36 (18.2-3054.7)	0.1 (0.1)	2336.89 (0.0-7079.8)	0.2 (0.2)
23344P	0.0001	250.32 (7.4-1178.5)	0.0 (0.0)	1044.35 (0.0-3155.6)	0.1 (0.1)
233445P	0.0005	140.15 (2.5-579.9)	0.1 (0.1)	430.67 (67.9-1536.6)	0.2 (0.2)
233445'P	0.0005	39.28 (1.4-178.7)	0.0 (0.0)	92.98 (13.5-347.3)	0.0 (0.0)
3344P	0.0001	11.87 (0.0-35.2)	0.0 (0.0)	216.24 (35.8-1201.1)	0.0 (0.0)



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<i>Congener</i>	<i>WHO TEF</i>	<i>Surface soil (n=20)</i>		<i>Indoor dust (n=18)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
33445P	0.1	6.32 (0.2-26.6)	0.6 (0.8)	18.68 (3.5-83.4)	1.9 (2.2)
334455P	0.01	0.72 (0.1-3.3)	0.0 (0.0)	1.26 (0.0-3.7)	0.0 (0.0)
Total		2267.49 (75.5-7296.0)	3.9 (4.7)	12408.99 (334.8-47034.7)	17.4 (21.7)

**Table 16: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Environmental Samples**

<i>Congener</i>	<i>WHO TEF</i>	<i>Attic dust (n=14)</i>		<i>Well water (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/L	Mean WHO-TEQ (SD), pg TEQ/L
<i>PCDDs</i>					
2378D	1	0.36 (0.0-1.5)	0.4 (0.6)	0.00 (0.0-0.0)	0.0 (0.0)
12378D	1	3.14 (0.0-11.5)	3.1 (4.3)	0.00 (0.0-0.0)	0.0 (0.0)
1234/678D	0.1	206.83 (0.0-1691.0)	20.7 (46.4)	0.00 (0.0-0.0)	0.0 (0.0)
123789D	0.1	36.47 (0.0-196.3)	3.6 (6.2)	0.00 (0.0-0.0)	0.0 (0.0)
1234678D	0.01	4465.62 (20.9-34150.2)	44.7 (94.7)	0.00 (0.0-0.0)	0.0 (0.0)
OCDD	0.0001	24290.96 (204.9-174768.2)	2.4 (4.8)	0.00 (0.0-0.0)	0.0 (0.0)
<i>PCDFs</i>					
2378F	0.1	6.48 (0.0-28.3)	0.6 (0.9)	0.00 (0.0-0.0)	0.0 (0.0)
12378F	0.05	4.70 (0.0-21.3)	0.2 (0.4)	0.00 (0.0-0.0)	0.0 (0.0)
23478F	0.5	16.30 (0.0-70.9)	8.2 (11.4)	0.00 (0.0-0.0)	0.0 (0.0)
1234/678F	0.1	74.73 (0.0-400.0)	7.5 (11.7)	0.00 (0.0-0.0)	0.0 (0.0)
123789F	0.1	1.43 (0.0-6.0)	0.1 (0.2)	0.00 (0.0-0.0)	0.0 (0.0)
234678F	0.1	66.88 (0.0-503.4)	6.7 (13.7)	0.00 (0.0-0.0)	0.0 (0.0)
1234678F	0.01	2152.57 (5.3-20771.3)	21.5 (56.6)	0.00 (0.0-0.0)	0.0 (0.0)
1234789F	0.01	94.07 (0.0-834.2)	0.9 (2.3)	0.00 (0.0-0.0)	0.0 (0.0)
OCDF	0.0001	4091.56 (7.2-39126.3)	0.4 (1.1)	0.00 (0.0-0.0)	0.0 (0.0)
<i>Coplanar PCBs</i>					
23445P	0.0001	4587.47 (0.0-36797.7)	0.5 (1.0)	0.00 (0.0-0.0)	0.0 (0.0)
23344P	0.0001	2638.47 (0.0-21903.3)	0.3 (0.6)	0.00 (0.0-0.0)	0.0 (0.0)
233445P	0.0005	1059.03 (0.0-8779.6)	0.5 (1.2)	0.00 (0.0-0.0)	0.0 (0.0)
233445'P	0.0005	238.86 (0.0-1950.7)	0.1 (0.3)	0.00 (0.0-0.0)	0.0 (0.0)
3344P	0.0001	472.93 (20.8-3353.8)	0.0 (0.1)	0.00 (0.0-0.0)	0.0 (0.0)
33445P	0.1	49.63 (0.0-222.0)	5.0 (7.7)	0.00 (0.0-0.0)	0.0 (0.0)

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		<i>Attic dust (n=14)</i>		<i>Well water (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/L	Mean WHO-TEQ (SD), pg TEQ/L
334455P	0.01	3.76 (0.0-21.1)	0.0 (0.1)	0.00 (0.0-0.0)	0.0 (0.0)
Total		44843.81 (382.3-347598.5)	127.5 (252.3)	0.00 (0.0-0.0)	0.0 (0.0)

**Table 17: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Environmental Samples**

<i>Congener</i>	<i>WHO TEF</i>	<i>Fish (n=8)</i>		<i>Vegetables (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
<i>PCDDs</i>					
2378D	1	0.52 (0.0-1.6)	0.5 (0.5)	0.00 (0.0-0.0)	0.0 (0.0)
12378D	1	0.43 (0.0-1.2)	0.4 (0.4)	0.00 (0.0-0.0)	0.0 (0.0)
1234/678D	0.1	0.71 (0.0-1.3)	0.1 (0.1)	0.00 (0.0-0.0)	0.0 (0.0)
123789D	0.1	0.11 (0.0-0.2)	0.0 (0.0)	0.02 (0.0-0.1)	0.0 (0.0)
1234678D	0.01	0.66 (0.0-1.4)	0.0 (0.0)	0.13 (0.0-0.3)	0.0 (0.0)
OCDD	0.0001	3.49 (0.0-13.9)	0.0 (0.0)	0.60 (0.0-1.2)	0.0 (0.0)
<i>PCDFs</i>					
2378F	0.1	3.91 (0.0-14.0)	0.4 (0.5)	0.00 (0.0-0.0)	0.0 (0.0)
12378F	0.05	3.38 (0.0-15.5)	0.2 (0.3)	0.00 (0.0-0.0)	0.0 (0.0)
23478F	0.5	5.98 (0.0-25.0)	3.0 (4.2)	0.02 (0.0-0.1)	0.0 (0.0)
1234/678F	0.1	3.15 (0.0-17.7)	0.3 (0.6)	0.02 (0.0-0.1)	0.0 (0.0)
123789F	0.1	0.05 (0.0-0.3)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
234678F	0.1	0.59 (0.0-1.8)	0.1 (0.1)	0.05 (0.0-0.1)	0.0 (0.0)
1234678F	0.01	0.46 (0.0-2.3)	0.0 (0.0)	0.09 (0.0-0.2)	0.0 (0.0)
1234789F	0.01	0.07 (0.0-0.4)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
OCDF	0.0001	0.69 (0.0-2.4)	0.0 (0.0)	0.10 (0.0-0.2)	0.0 (0.0)
<i>Coplanar PCBs</i>					
23445P	0.0001	330.84 (242.3-476.4)	0.0 (0.0)	13.38 (0.0-40.1)	0.0 (0.0)
23344P	0.0001	97.49 (58.79-148.6)	0.0 (0.0)	5.13 (0.0-15.4)	0.0 (0.0)
233445P	0.0005	34.00 (16.6-64.6)	0.0 (0.0)	1.66 (1.0-2.1)	0.0 (0.0)
233445'P	0.0005	10.13 (6.0-17.6)	0.0 (0.0)	0.33 (0.0-0.5)	0.0 (0.0)
3344P	0.0001	112.09 (2.6-372.1)	0.0 (0.0)	0.32 (0.0-1.0)	0.0 (0.0)
33445P	0.1	154.38 (0.7-569.7)	15.4 (19.3)	0.08 (0.0-0.1)	0.0 (0.0)

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		<i>Fish (n=8)</i>		<i>Vegetables (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
334455P	0.01	11.48 (0.0-36.2)	0.1 (0.1)	0.00 (0.0-0.0)	0.0 (0.0)
Total		479.30 (154.6-825.7)	20.6 (23.2)	21.94 (1.1-61.1)	0.0 (0.0)

**Table 18: Mean Concentration and Mean WHO-TEQs of Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Environmental Samples**

<i>Congener</i>	<i>WHO TEF</i>	<i>Fruits (n=3)</i>		<i>Nuts (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
<i>PCDDs</i>					
2378D	1	0.00 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
12378D	1	0.01 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
1234/678D	0.1	0.03 (0.0-0.1)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
123789D	0.1	0.02 (0.0-0.1)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
1234678D	0.01	0.14 (0.0-0.4)	0.0 (0.0)	0.09 (0.0-0.3)	0.0 (0.0)
OCDD	0.0001	0.72 (0.0-2.2)	0.0 (0.0)	0.58 (0.0-1.7)	0.0 (0.0)
<i>PCDFs</i>					
2378F	0.1	0.00 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
12378F	0.05	0.01 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
23478F	0.5	0.01 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
1234/678F	0.1	0.02 (0.0-0.1)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
123789F	0.1	0.00 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
234678F	0.1	0.02 (0.0-0.1)	0.0 (0.0)	0.03 (0.0-0.1)	0.0 (0.0)
1234678F	0.01	0.02 (0.0-0.1)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
1234789F	0.01	0.00 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
OCDF	0.0001	0.05 (0.0-0.1)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
<i>Coplanar PCBs</i>					
23445P	0.0001	70.02 (0.0-150.8)	0.0 (0.0)	66.88 (0.0-143.9)	0.0 (0.0)
23344P	0.0001	24.63 (0.0-48.8)	0.0 (0.0)	27.85 (0.0-56.4)	0.0 (0.0)
233445P	0.0005	3.28 (0.0-6.2)	0.0 (0.0)	3.84 (0.0-5.9)	0.0 (0.0)
233445'P	0.0005	0.66 (0.0-1.2)	0.0 (0.0)	0.83 (0.0-1.3)	0.0 (0.0)
3344P	0.0001	9.76 (0.8-21.0)	0.0 (0.0)	7.21 (1.4-16.7)	0.0 (0.0)
33445P	0.1	0.24 (0.1-0.3)	0.0 (0.0)	0.14 (0.1-0.2)	0.0 (0.0)

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		<i>Fruits (n=3)</i>		<i>Nuts (n=3)</i>	
		Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g	Mean concentration (range), pg/g	Mean WHO-TEQ (SD), pg TEQ/g
334455P	0.01	0.00 (0.0-0.0)	0.0 (0.0)	0.00 (0.0-0.0)	0.0 (0.0)
Total		109.64 (3.6-228.7)	0.0 (0.0)	107.4 (1.5-225.4)	0.0 (0.0)

**Table 19: Mean WHO-TEQs and Percent Contribution to Total TEQ by Dioxin, Furan, and Coplanar PCB Congeners in 2001 Exposure Investigation Environmental Samples**

<i>Congener</i>	<i>Surface soil (n=20)</i>		<i>Indoor dust (n=18)</i>		<i>Attic dust (n=14)</i>		<i>Fish (n=8)</i>	
	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ
<i>PCDDs</i>								
2378D	0.1	1.8	0.1	0.4	0.4	0.3	0.5	2.5
12378D	0.5	13.1	0.5	2.8	3.1	2.5	0.4	2.1
1234/678D	0.5	11.7	1.7	9.7	20.7	16.2	0.1	0.3
123789D	0.3	6.6	0.4	2.5	3.6	2.9	0.0	0.1
1234678D	0.9	22.9	8.0	45.9	44.7	35.0	0.0	0.0
OCDD	0.1	2.6	0.7	4.0	2.4	1.9	0.0	0.0
<i>PCDFs</i>								
2378F	0.0	0.9	0.1	0.7	0.6	0.5	0.4	1.9
12378F	0.0	0.4	0.0	0.2	0.2	0.2	0.2	0.8
23478F	0.0	0.9	0.6	3.6	8.2	6.4	3.0	14.5
1234/678F	0.3	6.5	0.9	5.1	7.5	5.9	0.3	1.5
123789F	0.0	0.2	0.0	0.1	0.1	0.1	0.0	0.0
234678F	0.1	3.3	0.5	2.9	6.7	5.2	0.1	0.3
1234678F	0.3	6.5	1.2	6.9	21.5	16.9	0.0	0.0
1234789F	0.0	0.3	0.1	0.5	0.9	0.7	0.0	0.0
OCDF	0.0	0.1	0.0	0.2	0.4	0.3	0.0	0.0
<i>Coplanar PCBs</i>								
23445P	0.1	1.6	0.2	1.4	0.5	0.4	0.0	0.1
23344P	0.0	0.6	0.1	0.6	0.3	0.2	0.0	0.0
233445P	0.1	1.8	0.2	1.3	0.5	0.4	0.0	0.0
233445'P	0.0	0.5	0.0	0.3	0.1	0.1	0.0	0.0
3344P	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.1



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	<i>Surface soil (n=20)</i>		<i>Indoor dust (n=18)</i>		<i>Attic dust (n=14)</i>		<i>Fish (n=8)</i>	
	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ	Mean WHO-TEQ, pg TEQ/g	Percent contribution to total TEQ
33445P	0.6	16.2	1.9	10.9	5.0	3.9	15.4	74.9
334455P	0.0	0.2	0.0	0.1	0.0	0.0	0.1	0.6
Total	3.9	100	17.4	100	127.5	100	20.6	100

**Table 20: Statistically Significant Spearman Rank Correlation Coefficients for 2001 Serum Congener Concentration and Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			
1234678D	0.48 <sup>+</sup>		
1234679D	0.54 <sup>+</sup>		
OCDD			
<i>PCDFs</i>			
2378F			
12378F			
23478F			
1234/678F			
123789F			
234678F			
1234678F			
1234789F			
<i>Coplanar PCBs</i>			
3445P			
33445P			+
334455P			
Total TEQ			

<sup>+</sup>p ≤ 0.05

**Table 21: Linear Regression for All 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			0.02 (0.369)
1234678D	0.034 (0.355)		
1234679D			
OCDD	0.044 (0.247)		
<i>PCDFs</i>			
2378F			
12378F			
23478F			
1234/678F			
123789F	0.022 (1.121)		
234678F			
1234678F			
1234789F			
<i>Coplaner PCBs</i>			
3445P			
33445P			0.049 (0.638)
334455P			0.016 (0.702)
Total TEQ			

**Table 22: Linear Regression for Female 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			0.036 (0.493)
1234678D			
1234679D	0.046 (0.413)		
OCDD			
<i>PCDFs</i>			
2378F			
12378F			
23478F			
1234/678F			
123789F			
234678F			
1234678F			
1234789F			
<i>Coplaner PCBs</i>			
3445P			
33445P		0.019 (-0.847)	
334455P			
Total TEQ			

**Table 23: Linear Regression for Male 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			
1234678D	0.037 (0.403)		
1234679D			
OCDD			
<i>PCDFs</i>			
2378F			
12378F			
23478F			
1234/678F			
123789F			
234678F		0.034 (0.138)	
1234678F			
1234789F			
<i>Coplaner PCBs</i>			
3445P			
33445P			
334455P			
Total TEQ			

**Table 24: Linear Regression for 2001 EI Participants from the 1997 Cohort; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D		*	
12378D		*	
1234/678D		0.005 (1.042)	0.029 (0.828)
123789D		0.026 (0.910)	
1234678D		0.028 (0.762)	
1234679D			
OCDD			
<i>PCDFs</i>			
2378F			
12378F		*	*
23478F		*	
1234/678F	0.044 (0.510)	0.016 (0.746)	
123789F	*	*	*
234678F			
1234678F			
1234789F			
<i>Coplaner PCBs</i>			
3445P			
33445P	0.005 (0.515)		
334455P	*	*	*
Total TEQ			

\* N too low

**Table 25: Linear Regression for 2001 EI Participants from the 1998 Cohort; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			0.042 (0.407)
1234678D			
1234679D	0.017 (0.335)		
OCDD			
<i>PCDFs</i>			
2378F			
12378F		0.045 (-1.486)	
23478F			
1234/678F			
123789F			
234678F			
1234678F			
1234789F			0.030 (0.284)
<i>Coplaner PCBs</i>			
3445P			
33445P			
334455P			
Total TEQ			

**Table 26: General Linear Model (GLM) Repeated Measures Analysis for all 2001 EI Participants; Statistically Significant P-Values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor Dust</i>	<i>Attic Dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D	0.047		
1234678D	0.035		0.033
1234679D			
OCDD	0.040		0.030
<i>PCDFs</i>			
2378F			
12378F			0.041
23478F			
1234/678F			
123789F			
234678F			
1234678F			
1234789F			
<i>Coplanar PCBs</i>			
3445P	0.005	0.004	0.003
33445P	0.028		
334455P			
Total TEQ			



**Table 27: General Linear Model (GLM) Repeated Measures Analysis for Male 2001 EI Participants; Statistically Significant P-values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D	*	*	
123789D	*		
1234678D	*	*	*
1234679D	*		
OCDD	*	*	*
<i>PCDFs</i>			
2378F			
12378F			0.007
23478F			
1234/678F		*	*
123789F	*		
234678F	*		
1234678F	*	*	*
1234789F	*		
<i>Coplanar PCBs</i>			
3445P	*	*	*
33445P	*		
334455P	0.028 *		
Total TEQ			

\* N too low

**Table 28: General Linear Model (GLM) Repeated Measures Analysis for Female 2001 EI Participants; Statistically Significant P-Values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D			
1234678D			
1234679D			
OCDD			
<i>PCDFs</i>			
2378F	0.032		
12378F	0.038	<0.0001	
23478F			
1234/678F			
123789F			
234678F			
1234678F			
1234789F			
<i>Coplanar PCBs</i>			
3445P			
33445P			
334455P			
Total TEQ			

**Table 29: General Linear Model (GLM) Repeated Measures Analysis for 1997 Cohort Participants; Statistically Significant P-Values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D		*	
12378D		*	*
1234/678D	*	*	*
123789D	*	*	*
1234678D	*		*
1234679D		*	*
OCDD		*	*
<i>PCDFs</i>			
2378F			*
12378F			*
23478F			*
1234/678F	*	*	*
123789F	*	*	*
234678F	*	*	*
1234678F	*	*	*
1234789F	*	*	*
<i>Coplanar PCBs</i>			
3445P	*	*	*
33445P			
334455P	*	*	*
Total TEQ			

\* N too low

**Table 30: General Linear Model (GLM) Repeated Measures Analysis for 1998 Cohort Participants; Statistically Significant P-values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Log Transformed Environmental Congener Concentration**

<i>Congener</i>	<i>Surface soil</i>	<i>Indoor dust</i>	<i>Attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D			
123789D	0.043		
1234678D	0.031		0.030
1234679D	*	0.002	0.020
OCDD	0.056		0.040
<i>PCDFs</i>			
2378F	0.012	0.009	0.036
12378F			
23478F			
1234/678F			
123789F	0.043		
234678F			
1234678F			
1234789F			
<i>Coplanar PCBs</i>			
3445P			
33445P			
334455P			
Total TEQ			

\* N too low

**Table 31: Statistically Significant Spearman Rank Correlation Coefficients for 2001 Serum Congener Concentration and Demographic Data Results**

<i>Congener</i>	<i>Age</i>	<i>BMI</i>	<i>Weight change</i>	<i>Sex</i>
<i>PCDDs</i>				
2378D	0.71 <sup>+++</sup>			
12378D	0.69 <sup>+++</sup>			
1234/678D	0.67 <sup>++</sup>			
123789D	0.70 <sup>+++</sup>	0.47 <sup>+</sup>		
1234678D	0.56 <sup>++</sup>			-0.44 <sup>+</sup>
1234679D				
OCDD	0.54 <sup>++</sup>			
<i>PCDFs</i>				
2378F				
12378F			-0.55 <sup>++</sup>	
23478F	0.80 <sup>+++</sup>			
1234/678F	0.75 <sup>+++</sup>			
123789F				
234678F	0.61 <sup>++</sup>	0.49 <sup>+</sup>		
1234678F	0.53 <sup>+</sup>	0.43 <sup>+</sup>		
1234789F			-0.44 <sup>+</sup>	
<i>Coplanar PCBs</i>				
3445P				
33445P				
334455P	0.87 <sup>+++</sup>			
Total TEQ	0.71 <sup>+++</sup>			

<sup>+</sup>p ≤ 0.05; <sup>++</sup>p ≤ 0.01; <sup>+++</sup>p ≤ 0.001

**Table 32: Linear Regression for All 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>BMI</i>	<i>Weight change</i>	<i>Sex</i>	<i>Gardening</i>	<i>Fish consumption</i>
<i>PCDDs</i>						
2378D	0.001 (0.060)			0.049 (-0.332)		
12378D	<0.0001 (0.023)					
1234/678D	<0.0001 (0.018)					
123789D	0.001 (0.014)	0.025 (0.020)		0.022 (-0.346)		
1234678D	0.019 (0.013)	0.027 (0.025)			0.035 (0.455)	
1234679D			0.042 (-0.004)			
OCDD	0.011 (0.009)			0.023 (-0.271)		
<i>PCDFs</i>						
2378F						
12378F						
23478F	<0.0001 (0.016)					
1234/678F	<0.0001 (0.015)					
123789F						0.040 (-0.225)
234678F	0.003 (0.016)				0.050 (0.415)	
1234678F	0.023 (0.009)					
1234789F						
<i>Coplaner PCBs</i>						
3445P						
33445P						
334455P	<0.0001 (0.020)					
Total TEQ	<0.0001 (0.018)					

**Table 33: Linear Regression for Female 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>BMI</i>	<i>Weight change</i>
<i>PCDDs</i>			
2378D	<0.0001 (0.020)		
12378D	<0.0001 (0.027)		
1234/678D	<0.0001 (0.025)		
123789D	0.003 (0.017)		
1234678D	0.014 (0.013)	0.011 (0.030)	
1234679D			0.036 (-0.007)
OCDD	0.004 (0.009)		
<i>PCDFs</i>			
2378F			0.043 (-0.009)
12378F			
23478F	0.001 (0.020)		
1234/678F	0.001 (0.015)		
123789F			
234678F	0.025 (0.018)		
1234678F	0.02 (0.007)	0.014 (0.010)	
1234789F			
<i>Coplaner PCBs</i>			
3445P			
33445P			
334455P	<0.0001 (0.022)		
Total TEQ	<0.0001 (0.022)		

**Table 34: Linear Regression for Male 2001 EI Participants; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Gardening</i>
<i>PCDDs</i>		
2378D	0.023 (0.014)	
12378D	0.024 (0.020)	
1234/678D	0.006 (0.013)	0.036 (0.398)
123789D	0.010 (0.013)	0.021 (0.382)
1234678D		0.035 (0.596)
1234679D		
OCDD	0.046 (0.010)	
<i>PCDFs</i>		
2378F		
12378F		
23478F	0.005 (0.010)	0.035 (0.390)
1234/678F	0.018 (0.016)	
123789F		0.026 (-0.273)
234678F		
1234678F		
1234789F		
<i>Coplaner PCBs</i>		
3445P		
33445P		
334455P	<0.0001 (0.018)	0.005 (0.480)
Total TEQ	0.012 (0.015)	0.041 (0.413)



**Table 35: Linear Regression for 2001 EI Participants from the 1997 Cohort; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Weight change</i>	<i>Gardening</i>
<i>PCDDs</i>			
2378D	<0.0001 (0.045)	0.013 (-0.041)	
12378D	0.001 (0.064)	0.012 (-0.059)	
1234/678D	0.021 (0.032)	0.031 (-0.030)	
123789D	0.020 (0.025)	0.012 (-0.024)	
1234678D		0.048 (-0.040)	
1234679D			
OCDD			
<i>PCDFs</i>			
2378F			
12378F			
23478F	0.014 (0.028)		
1234/678F			
123789F			0.005 (-0.508)
234678F	0.029 (0.292)		
1234678F			
1234789F	0.030 (-0.013)		
<i>Coplaner PCBs</i>			
3445P			
33445P			
334455P	0.041 (0.026)	0.012 (-0.026)	
Total TEQ	0.002 (0.039)	0.017 (-0.035)	

**Table 36: Linear Regression for 2001 EI Participants from the 1998 Cohort; Statistically Significant P-values (slope) for Log Transformed 2001 Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Gardening</i>
<i>PCDDs</i>		
2378D	0.001 (0.015)	
12378D	<0.0001 (0.021)	
1234/678D	<0.0001 (0.017)	
123789D	0.004 (0.014)	
1234678D	0.042 (0.012)	0.041 (0.493)
1234679D		
OCDD	0.008 (0.010)	0.030 (0.342)
<i>PCDFs</i>		
2378F		
12378F		
23478F	<0.0001 (0.016)	
1234/678F	<0.0001 (0.014)	
123789F		
234678F	0.015 (0.015)	0.049 (0.506)
1234678F	0.007 (0.008)	
1234789F		
<i>Coplaner PCBs</i>		
3445P		
33445P		
334455P	<0.0001 (0.020)	
Total TEQ	<0.0001 (0.017)	

**Table 37: General Linear Model (GLM) Repeated Measures Analysis for all 2001 EI Participants; Statistically Significant P-Values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Weight Change</i>	<i>Sex</i>	<i>Gardening</i>	<i>Age of house</i>	<i>Time between tests</i>
<i>PCDDs</i>						
2378D		0.020	0.010			
12378D			0.047			
1234/678D						
123789D			0.030			
1234678D						
1234679D					0.050	
OCDD						0.020
<i>PCDFs</i>						
2378F		0.037				
12378F						
23478F			0.030			
1234/678F						
123789F	0.046					
234678F				0.044		
1234678F						
1234789F						
<i>Coplanar PCBs</i>						
3445P						
33445P						
334455P	0.033					
Total TEQ						

**Table 38: General Linear Model (GLM) Repeated Measures Analysis for Male 2001 EI Participants; Statistically Significant P-Values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Gardening</i>	<i>Age of house</i>	<i>Residence time</i>	<i>Time between tests</i>
<i>PCDDs</i>					
2378D					
12378D					
1234/678D		0.042	0.036		
123789D		0.025			
1234678D		0.033			
1234679D	*				
OCDD	0.038				
<i>PCDFs</i>					
2378F	0.040			0.004	
12378F					
23478F	0.026	0.037	0.007		
1234/678F					
123789F		0.025			
234678F					
1234678F			0.031	0.001	
1234789F					
<i>Coplanar PCBs</i>					
3445P					<0.0001
33445P	*				
334455P		0.005			
Total TEQ					

\* N too low

**Table 39: General Linear Model (GLM) Repeated Measures Analysis for Female 2001 EI Participants; Statistically Significant P-values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Gardening</i>	<i>Age of house</i>	<i>Time between tests</i>
<i>PCDDs</i>				
2378D	*	0.034		*
12378D	*			*
1234/678D	*			*
123789D	*			
1234678D	*			
1234679D	*		*	*
OCDD	*			*
<i>PCDFs</i>				
2378F	*			
12378F	*			*
23478F	*			*
1234/678F	*			*
123789F	*			*
234678F	*	*		*
1234678F	*			
1234789F	*			
<i>Coplanar PCBs</i>				
3445P	*			*
33445P	*			
334455P	*	*		*
		*		
Total TEQ				

\* N too low

\*

**Table 40: General Linear Model (GLM) Repeated Measures Analysis for 1997 Cohort Participants; Statistically Significant P-values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Weight change</i>	<i>Gardening</i>	<i>Eating Crawfish</i>	<i>Age of house</i>	<i>Residence time</i>
<i>PCDDs</i>						
2378D				0.040	*	
12378D				0.049	*	
1234/678D						
123789D						*
1234678D						
1234679D	*	*	*		*	*
OCDD	0.040					
<i>PCDFs</i>						
2378F					*	
12378F					*	
23478F	0.022				*	
1234/678F					*	
123789F					*	
234678F					*	
1234678F						
1234789F			*			
<i>Coplanar PCBs</i>			*			
3445P			*		*	
33445P						
334455P		0.046	*		*	
Total TEQ						

\* N too low

**Table 41: General Linear Model (GLM) Repeated Measures Analysis for 1998 Cohort Participants; P-values for Association Between the Change in 1<sup>st</sup> and 2<sup>nd</sup> Log Transformed Serum Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Age</i>	<i>Gardening</i>	<i>Eating Crawfish</i>	<i>Age of house</i>	<i>Residence time</i>
<i>PCDDs</i>					
2378D			0.035		
12378D					
1234/678D			0.045		
123789D					0.030
1234678D			0.004		
1234679D				<0.001	
OCDD		0.049	0.036		
<i>PCDFs</i>					
2378F	0.036				
12378F					0.038
23478F					
1234/678F			0.019		
123789F					
234678F		0.042	0.009		
1234678F					
1234789F					
<i>Coplanar PCBs</i>					
3445P					
33445P					
334455P	0.027				
Total TEQ				0.006	

\* N too low

**Table 42: Statistically Significant Spearman Rank Correlation Coefficients for Environmental Congener Concentration and Demographic Data**

<i>Congener</i>	<i>Indoor dust and attic dust</i>	<i>Indoor dust and surface soil</i>	<i>Age of house and attic dust</i>
<i>PCDDs</i>			
2378D			
12378D			
1234/678D	0.87 <sup>+++</sup>		
123789D	0.60 <sup>+</sup>		
1234678D	0.86 <sup>++</sup>		<sup>+</sup>
1234679D	0.84 <sup>+++</sup>		
OCDD	0.71 <sup>++</sup>		0.54 <sup>+</sup>
<i>PCDFs</i>			
2378F		<sup>+</sup>	0.82 <sup>+++</sup>
12378F			0.68 <sup>+</sup>
23478F	0.72 <sup>++</sup>		<sup>+</sup>
1234/678F	0.87 <sup>+++</sup>		<sup>+</sup>
123789F			0.73 <sup>+++</sup>
234678F	0.80 <sup>+++</sup>	0.52 <sup>+</sup>	0.54 <sup>+</sup>
1234678F	0.89 <sup>+++</sup>	0.54	0.73 <sup>++</sup>
1234789F	0.71 <sup>++</sup>		
<i>Coplanar PCBs</i>			
3445P	0.76 <sup>++</sup>	0.54 <sup>+</sup>	
33445P	0.59	<sup>+</sup>	
334455P			
		0.56	
Total TEQ		0.58	

<sup>+</sup>p ≤ 0.05; <sup>++</sup>p ≤ 0.01; <sup>+++</sup>p ≤ 0.001



**Table 43: Comparison of Total TEQs by Age Quartile in the 2001 Exposure Investigation Participants and the 2002 Lafayette Parish Reference Population; Nondetects = 1/2 Limit of Detection**

	<i>Dioxin Total TEQs</i>					
	2001 Exposure Investigation			2002 Lafayette Parish		
Age quartiles	N	Mean	Median	N	Mean	Median
15-29	2	11.25	11.25	26	7.48	6.47
30-44	3	15.34	12.98	31	14.46	14.04
45-59	6	45.80	36.29	31	19.79	18.62
60+	11	93.18	70.23	32	43.32	36.00
Total	22	62.20	40.50	120	22.02	15.56

**Table 44: Comparison of Percent Contribution by Congener to Total Concentration in the 2001 Exposure Investigation Participants and the 2002 Lafayette Parish Reference Population; Nondetect = ½ Limit of Detection**

<i>Congener</i>	<i>2001 Exposure Investigation</i>		<i>2002 Lafayette Parish</i>	
	Mean concentration, pg/g lipid	Percent contribution to mean concentration	Mean concentration, pg/g lipid	Percent contribution to mean concentration
<i>PCDDs</i>				
2378D	7.00	0.62	2.76	0.53
12378D	26.09	2.31	7.32	1.41
1234/678D	126.45	11.18	20.96	4.05
123789D	14.35	1.27	6.09	1.18
1234678D	84.42	7.46	50.18	9.70
1234679D	0.96	0.08	0.00	0.00
OCDD	730.68	64.61	373.43	72.18
<i>PCDFs</i>				
2378F	0.51	0.05	0.78	0.15
12378F	0.68	0.06	0.83	0.16
23478F	11.06	0.98	6.18	1.19
1234/678F	22.01	1.95	4.94	0.96
123789F	0.29	0.03	1.28	0.25
234678F	2.25	0.20	1.50	0.29
1234678F	14.54	1.29	0.00	0.00
1234789F	0.73	0.06	0.00	0.00
<i>Coplaner PCBs</i>				
3445P	2.06	0.18	4.56	0.88
33445P	45.01	3.98	19.53	3.77
334455P	41.90	3.70	16.99	3.28
Total	1130.99	100.00	517.33	100.00

**Table 45: Comparison of Percent Contribution by Congener to Total TEQ in the 2001 Exposure Investigation Participants and the 2002 Lafayette Parish Reference Population; Nondetect = 1/2 Limit of Detection**

<i>Congener</i>	<i>WHO TEF</i>	<i>2001 Exposure Investigation</i>		<i>2002 Lafayette Parish</i>	
		Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to mean total WHO-TEQ	Mean WHO-TEQ, pg TEQ/g lipid	Percent contribution to mean total WHO-TEQ
<i>PCDDs</i>					
2378D	1	7.00	11.43	2.76	14.13
12378D	1	26.09	42.62	7.32	37.48
1234/678D	0.1	12.65	20.66	2.10	10.75
123789D	0.1	1.43	2.33	0.61	3.12
1234678D	0.01	0.84	1.37	0.50	2.56
1234679D	0	0.00	0.00	0.00	0.00
OCDD	0.0001	0.07	0.12	0.04	0.20
<i>PCDFs</i>					
2378F	0.1	0.05	0.08	0.08	0.41
12378F	0.05	0.03	0.05	0.04	0.20
23478F	0.5	5.53	9.03	3.09	15.82
1234/678F	0.1	2.20	3.59	0.49	2.51
123789F	0.1	0.03	0.05	0.13	0.67
234678F	0.1	0.22	0.36	0.15	0.77
1234678F	0.01	0.15	0.25	0.10	0.51
1234789F	0.01	0.01	0.02	0.00	0.00
<i>Coplaner PCBs</i>					
3445P	0.0001	0.00	0.00	0.00	0.00
33445P	0.1	4.50	7.35	1.95	9.98
334455P	0.01	0.42	0.69	0.17	0.87
Totals		61.22	100.00	19.53	100.00

**Table 46: Comparison of Total TEQs by Age Quartiles in the 2001 Exposure Investigation Participants and the 3 States Meta-analysis Reference Population; Nondetect = ½ Limit of Detection**

	<i>Dioxin Total TEQ</i>					
	2001 Exposure Investigation			3 States Meta-analysis		
Age quartiles	N	Mean	Median	N	Mean	Median
15-29	2	11.25	11.25	16	14.26	13.98
30-44	3	15.34	12.98	98	15.35	13.23
45-59	6	45.80	36.29	64	18.48	16.82
60+	11	93.18	70.23	36	27.53	25.99
Total	22	62.20	40.50	214	18.25	16.20

**Table 47: Comparison by Congener for 95<sup>th</sup> Percentile Concentrations in the 2001 EI and 1999-2000 NCEH Sampling**

<i>Congener</i>	<i>95<sup>th</sup> percentile for initial EI sampling (1997/1998)</i>	<i>95<sup>th</sup> percentile for follow-up EI sampling (2001)</i>	<i>95<sup>th</sup> percentile for NCEH sampling (1999-2000), all persons 20 and over*</i>	<i>95% confidence intervals for NCEH sampling (1999-2000), all persons 20 and over</i>	<i>Frequency of 2001 EI concentrations above the NCEH 95th percentile</i>
2378D	19.98	24.99	<LOD	-	-
12378D	88.10	128.80	<LOD	-	-
1234/678D	318.00	495.95	*	*	-
123789D	37.28	49.27	<LOD	-	-
1234678D	424.25	306.75	119	102 - 139	18.2% (4/22)
1234679D	16.92	4.45	Not reported	Not reported	-
OCDD	2863.50	2424.00	948	822 - 1080	27.3% (6/22)
2378F	2.28	1.87	<LOD	-	-
12378F	2.63	1.64	<LOD	-	-
23478F	42.17	39.23	16.1	13.9 - 17.2	13.6% (3/22)
1234/678F	108.77	81.80	<LOD	-	-
123789F	5.21	0.19	<LOD	-	-
234678F	16.29	11.09	<LOD	-	-
1234678F	192.47	68.33	18.4	15.0 - 23.8	22.7% (5/22)
1234789F	3.30	1.01	Not reported	Not reported	-
3445P	9.31	8.65	<LOD	-	-
33445P	180.00	184.95	89.5	66.1 - 110	13.6% (3/22)
334455P	130.35	123.70	47.8	42.8 - 51.0	31.8% (7/22)

LOD = Limit of Detection

\* 123478D was not reported in the NCEH analysis so there are no applicable 95<sup>th</sup> percentile data for the combined congeners (1234/678D)

**Table 48: Comparison by Congener for 95<sup>th</sup> Percentile Concentrations in the 2001 EI and 2001-2002 NCEH Sampling**

<i>Congener</i>	<i>95<sup>th</sup> percentile for initial EI sampling (1997/1998)</i>	<i>95<sup>th</sup> percentile for follow-up EI sampling (2001)</i>	<i>95<sup>th</sup> percentile for NCEH sampling (1999-2000), all persons 20 and over*</i>	<i>95% confidence intervals for NCEH sampling (2001-2002), all persons 20 and over</i>	<i>Frequency of 2001 EI concentrations above the NCEH 95th percentile</i>
2378D	19.98	24.99	<LOD	-	-
12378D	88.10	128.80	15.8	13.3 - 19.8	54.5% (12/22)
1234/678D	318.00	495.95	141.9	111 - 173	31.8% (7/22)
123789D	37.28	49.27	16.9	14.3 - 20.0	27.3% (6/22)
1234678D	424.25	306.75	147	126 - 177	18.2% (4/22)
1234679D	16.92	4.45	Not reported	Not reported	-
OCDD	2863.50	2424.00	1260	997 - 1610	13.6% (3/22)
2378F	2.28	1.87	<LOD	-	-
12378F	2.63	1.64	<LOD	-	-
23478F	42.17	39.23	18.0	16.1 - 21.1	13.6% (3/22)
1234/678F	108.77	81.80	29.4	23.9 - 35.7	22.7% (5/22)
123789F	5.21	0.19	<LOD	-	-
234678F	16.29	11.09	<LOD	-	-
1234678F	192.47	68.33	27.1	22.5 - 32.0	9.1% (2/22)
1234789F	3.30	1.01	<LOD	Not reported	-
3445P	9.31	8.65	<LOD	-	-
33445P	180.00	184.95	108.0	92.7 - 116	9.1% (2/22)
334455P	130.35	123.70	60.7	55.8 - 65.8	18.2% (4/22)

LOD = Limit of Detection