



APPENDIX AVAILABLE ON THE HEI WEB SITE

Research Report 171

Multicity Study of Air Pollution and Mortality in Latin America

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Appendix J. Data Correlation Tables

Note: Appendices Available on the Web may appear in a different order than in the original Investigators' Report, and some remnants of their original names may be apparent. HEI has not changed the content of these documents, only the letter identifier.*

Appendix G was originally Appendix I
Appendix H was originally Appendix II
Appendix I was originally Appendix III
Appendix J was originally Appendix IV

*Edited tables were moved from the Investigators' Report to Appendix G with the investigators' approval.

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Multi-city study of air pollution and health effects in Latin America

ESCALA

Appendix J

Final report review

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1 Data Correlation Analyses

1.1 PM₁₀ (24 hr daily mean average)

Table 1. Pearson correlations among monitoring stations, Porto Alegre.

	Esef	Rodoviaria	Santa Cecilia
Esef	1.000		
Rodoviaria	0.085	1.000	
Santa Cecilia	-0.094	-0.173	1.000

Table 2. Pearson correlations among monitoring stations, Rio de Janeiro.

	Arcoverde	Carioca	Saens Pena	São Cristovao	Jacarepagua	Centro
Arcoverde	1.000					
Carioca	0.716	1.000				
Saens Pena	0.806	0.725	1.000			
São Cristovão	0.725	0.637	0.792	1.000		
Jacarepaguá	0.718	0.579	0.779	0.704	1.000	
Centro	0.637	0.732	0.614	0.621	0.594	1.000

Table 3. Pearson correlations among monitoring stations, Sao Paulo.

	Dom Pedro II	Centro	Santo Amaro	Pinheiros	Santana	Lapa	Nossa Senhora do O	Cerqueira Cesar	Mooca	Ibirapuera	Congonhas	Cambuci	Penha	São Miguel Paulista
Dom Pedro II	1.000													
Centro	0.919	1.000												
Santo Amaro	0.863	0.841	1.000											
Pinheiros	0.906	0.877	0.886	1.000										
Santana	0.716	0.596	0.610	0.810	1.000									
Lapa	0.857	0.811	0.871	0.841	0.613	1.000								
Nossa Senhora do O	0.738	0.765	0.710	0.710	0.750	0.623	1.000							
Cerqueira Cesar	0.895	0.919	0.845	0.870	0.639	0.780	0.700	1.000						
Mooca	0.835	0.799	0.808	0.873	0.734	0.708	0.723	0.791	1.000					
Ibirapuera	0.809	0.829	0.762	0.860	0.718	0.701	0.687	0.809	0.776	1.000				
Congonhas	0.793	0.756	0.670	0.725	0.691	0.673	0.677	0.799	0.730	0.669	1.000			
Cambuci	0.824	0.824	0.751	0.878	0.734	0.709	0.769	0.789	0.788	0.788	0.715	1.000		
Penha	0.886	0.857	0.795	0.597	0.580	0.721	0.723	0.823	0.794	0.742	0.741	0.728	1.000	
São Miguel Paulista	0.784	0.727	0.781	0.839	0.819	0.791	0.684	0.706	0.765	0.757	0.638	0.763	0.766	1.000

Table 4. Pearson correlations among monitoring stations, Santiago.

	La Paz	La Florida	Las Condes	Parque O'Higgins	Pudahuel	Cerrillos	El Bosque
La Paz	1.000						
La Florida	0.915	1.000					
Las Condes	0.758	0.800	1.000				
Parque O'Higgins	0.943	0.900	0.689	1.000			
Pudahuel	0.857	0.827	0.575	0.892	1.000		
Cerrillos	0.917	0.861	0.694	0.927	0.879	1.000	
El Bosque	0.922	0.917	0.702	0.925	0.870	0.914	1.000

Table 5. Pearson correlations among monitoring stations, Concepción.

	San Vicente	Libertad
San Vicente	1.000	
Libertad	0.476	1.000

Table 6. Pearson correlations among monitoring stations, Mexico City.

	Xalostoc	San Agustín	Cerro Estrella	La Villa	Villa de las Flores	Tláhuac	Acatlán	Nezahualcoyotl	Tultitlán	Taxqueña	Pedregal	Plateros	Hangares	Merced	Santa Úrsula	Tlalnepantla
Xalostoc	1.000															
San Agustín	0.752	1.000														
Cerro Estrella	0.618	0.785	1.000													
La Villa Villa de las Flores	0.631	0.827	0.689	1.000												
Tláhuac	0.471	0.652	0.628	0.548	1.000											
Acatlán	0.622	0.709	0.693	0.725	0.637	0.526	1.000									
Nezahualcoyotl	0.451	0.561	0.571	0.551	0.508	0.577	0.652	1.000								
Tultitlán	0.575	0.615	0.669	0.690	0.725	0.607	0.474	0.671	1.000							
Taxqueña	0.764	0.775	0.787	0.825	0.715	0.685	0.728	0.589	0.529	1.000						
Pedregal	0.543	0.717	0.698	0.583	0.482	0.573	0.713	0.531	0.530	0.844	1.000					
Plateros	0.701	0.763	0.769	0.819	0.676	0.704	0.756	0.493	0.518	0.891	0.903	1.000				
Hangares	0.723	0.848	0.819	0.843	0.797	0.689	0.721	0.775	0.678	0.785	0.750	0.789	1.000			
Merced	0.652	0.745	0.709	0.649	0.575	0.597	0.686	0.542	0.638	0.762	0.626	0.757	0.805	1.000		
Santa Úrsula	0.720	0.826	0.822	0.847	0.777	0.798	0.770	0.695	0.615	0.883	0.867	0.885	0.849	0.805	1.000	
Tlalnepantla	0.617	0.734	0.661	0.654	0.605	0.479	0.703	0.560	0.558	0.785	0.726	0.810	0.689	0.610	0.731	1.000

Table 7. Pearson correlations among monitoring stations, Monterrey.

	Sureste	Noreste	Centro	Noroeste	Suroeste
Sureste	1.000				
Noreste	0.679	1.000			
Centro	0.664	0.651	1.000		
Noroeste	0.642	0.813	0.665	1.000	
Suroeste	0.659	0.645	0.787	0.728	1.000

Table 8. Pearson correlations among monitoring stations, Toluca.

	Oxtotitlán	Toluca	Metepec	San Lorenzo	San Mateo	Aeropuerto	San Cristobal
Oxtotitlán	1.000						
Toluca	0.619	1.000					
Metepec	0.707	0.787	1.000				
San Lorenzo	0.760	0.638	0.814	1.000			
San Mateo	0.771	0.588	0.784	0.816	1.000		
Aeropuerto	0.691	0.635	0.807	0.820	0.872	1.000	
San Cristobal	0.758	0.620	0.817	0.785	0.820	0.778	1.000

1.2 O₃ (8hr max moving average)

Table 9. Pearson correlations among monitoring stations, Porto Alegre.

	Esef	Rodoviária	Santa Cecilia
Esef	1.000		
Rodoviária	0.116	1.000	
Santa Cecilia	-0.004	-0.022	1.000

Table 10. Pearson correlations among monitoring stations, Rio de Janeiro.

	Centro	Jacarepaguá
Centro	1.000	
Jacarepaguá	0.083	1.000

Table 11. Pearson correlations among monitoring stations, Sao Paulo*.

	Dom Pedro II	Mooca	Santana	São M Paulista	Santo Amaro	Pinheiros	Ibirapuera	N. Senhora O
Dom Pedro II	1.000							
Mooca	0.905	1.000						
Santana	0.829	0.854	1.000					
São M Paulista	0.801	0.854	0.845	1.000				
Santo Amaro	0.806	0.867	0.844	0.780	1.000			
Pinheiros	0.863	0.876	0.804	0.758	0.853	1.000		
Ibirapuera	0.863	0.915	0.886	0.848	0.907	0.903	1.000	
N. Senhora O	0.792	0.825	0.848	0.879	0.831	0.822	0.874	1.000

* Two stations were excluded from this analysis due to very sparse data

Table 12. Pearson correlations among monitoring stations, Santiago.

	La Paz	La Florida	Las Condes	Parque O'Higgins	Pudahuel	Cerrillos	El Bosque
La Paz	1.000						
La Florida	0.957	1.000					
Las Condes	0.955	0.954	1.000				
Parque O'Higgins	0.972	0.967	0.950	1.000			
Pudahuel	0.940	0.935	0.909	0.966	1.000		
Cerrillos	0.945	0.945	0.917	0.970	0.968	1.000	
El Bosque	0.954	0.971	0.925	0.969	0.947	0.957	1.000

Table 13. Pearson correlations among monitoring stations, Mexico City.

	Lagunilla	Tacuba	Acatlán	San Agustín	Azcapot	Tlalne	Xalos	Merced	Pedre	Cerro Estrella	Plat	Hang	UAM Iztapalapa	Benito Juárez	Taxq	Cuaji	Chapingo	Tláhuac	Santa Úrsula	Coyo	
Lagunilla	1.000																				
Tacuba	0.836	1.000																			
Acatlán	0.760	0.838	1.000																		
San Agustín	0.759	0.726	0.677	1.000																	
Azcapot	0.688	0.813	0.824	0.698	1.000																
Tlalne	0.753	0.830	0.886	0.725	0.833	1.000															
Xalos	0.770	0.734	0.754	0.792	0.706	0.820	1.000														
Merced	0.796	0.727	0.747	0.687	0.708	0.710	0.736	1.000													
Pedre	0.791	0.759	0.712	0.636	0.657	0.636	0.622	0.765	1.000												
Cerro Estrella	0.749	0.669	0.541	0.641	0.500	0.503	0.546	0.641	0.768	1.000											
Plat	0.782	0.766	0.744	0.671	0.712	0.668	0.629	0.779	0.846	0.713	1.000										
Hang	0.806	0.706	0.684	0.702	0.620	0.610	0.643	0.797	0.798	0.800	0.780	1.000									
UAM Iztapalapa	0.784	0.691	0.628	0.697	0.589	0.593	0.648	0.715	0.774	0.856	0.781	0.831	1.000								
Benito Juárez	0.810	0.778	0.643	0.588	0.609	0.590	0.581	0.729	0.791	0.740	0.768	0.762	0.759	1.000							
Taxq	0.794	0.749	0.700	0.682	0.664	0.662	0.683	0.806	0.844	0.806	0.810	0.809	0.835	0.786	1.000						
Cuaji	0.695	0.729	0.678	0.586	0.721	0.616	0.529	0.704	0.754	0.623	0.785	0.682	0.647	0.778	0.684	1.000					
Chapingo	0.547	0.443	0.515	0.593	0.575	0.519	0.576	0.666	0.507	0.508	0.555	0.585	0.553	0.516	0.565	0.566	1.000				
Tláhuac	0.592	0.481	0.379	0.504	0.389	0.328	0.352	0.543	0.678	0.787	0.645	0.702	0.712	0.621	0.661	0.565	0.500	1.000			
Santa Úrsula	0.806	0.715	0.642	0.695	0.687	0.579	0.546	0.786	0.865	0.841	0.864	0.820	0.786	0.867	0.838	0.816	0.697	0.790	1.000		
Coyo	0.940	0.886	0.856	0.849	0.851	0.821	0.745	0.918	0.963	0.903	0.974	0.915	0.955	0.756	0.899	0.905	0.829	0.793	0.943	1.000	

Table 14. Pearson correlations among monitoring stations, Monterrey.

	Sureste	Noreste	Centro	Noroeste	Suroeste
Sureste	1.000				
Noreste	0.850	1.000			
Centro	0.841	0.823	1.000		
Noroeste	0.817	0.810	0.864	1.000	
Suroeste	0.773	0.727	0.870	0.851	1.000

Table 15. Pearson correlations among monitoring stations, Toluca.

	Oxtotitlán	Toluca	Metepec	San Lorenzo	San Mateo	Aeropuerto	San Cristobal
Oxtotitlán	1.000						
Toluca	0.889	1.000					
Metepec	0.827	0.859	1.000				
San Lorenzo	0.913	0.904	0.876	1.000			
San Mateo	0.744	0.798	0.806	0.788	1.000		
Aeropuerto	0.661	0.800	0.731	0.802	0.682	1.000	
San Cristobal	0.912	0.872	0.810	0.939	0.754	0.653	1.000