

**Supplementary Materials**
**Table S1.** - Data and indicators.

<b>Data / Index</b>	<b>Source</b>	<b>Link</b>
Land take / Soil consumption 2019	ISPRA 2017-19	<a href="http://www.isprambiente.gov.it/it/temi/suolo-e-territorio/il-consumo-di-suolo/i-dati-sul-consumo-di-suolo">http://www.isprambiente.gov.it/it/temi/suolo-e-territorio/il-consumo-di-suolo/i-dati-sul-consumo-di-suolo</a>
Temperatures - average value 2007-2016		<a href="https://www.istat.it/it/archivio/temperature">https://www.istat.it/it/archivio/temperature</a>
Resident population on 1 January 2019		
Resident population 2019 > 65 years		<a href="http://demo.istat.it/">http://demo.istat.it/</a>
Population density 2019 - No. / Km <sup>2</sup>	ISTAT 2019-2020	<a href="http://demo.istat.it/pop2019/index3.html?fbclid=IwAR3ZfOAUbR1OBU3xD5qvD5FKWMhKW9Cxy1KF68GCZMJxgnly1Sle4MjlrEI">http://demo.istat.it/pop2019/index3.html?fbclid=IwAR3ZfOAUbR1OBU3xD5qvD5FKWMhKW9Cxy1KF68GCZMJxgnly1Sle4MjlrEI</a>
Commuting (O/D) 2011		<a href="https://www.istat.it/pendolarismo/grafici_province_cartografia_2011.html">https://www.istat.it/pendolarismo/grafici_province_cartografia_2011.html</a>
Industrial production		<a href="https://www.istat.it/it/archivio/produzione+industriale">https://www.istat.it/it/archivio/produzione+industriale</a>
Cycle paths- Km		
NO <sub>2</sub> - Annual average values in µg/mc		
Trees in the city - No. of trees in public areas / 100 inhabitants		
Efficient land use - index 0 -10		<a href="https://www.legambiente.it/wp-content/uploads/rapporto-ecosistema-urbano-2019.pdf">https://www.legambiente.it/wp-content/uploads/rapporto-ecosistema-urbano-2019.pdf</a>
Cycle paths - m/100 inhabitants	LEGAMBIENTE	<a href="#">9.pdf</a>
PM <sub>2.5</sub> - Annual average values in µg/mc	2019-2020	
NO <sub>2</sub> - Annual average values in µg/mc		
Ozone (O <sub>3</sub> ) - No. of days to exceed the 8 hour moving average of 120 µg / mc		
PM <sub>10</sub> + Ozone - overrun days 2017-2019 h		
PM <sub>10</sub> - overrun days 2015-2019		<a href="https://www.legambiente.it/wp-content/uploads/2020/01/Malaria-di-citta-2020.pdf">https://www.legambiente.it/wp-content/uploads/2020/01/Malaria-di-citta-2020.pdf</a>

**Table S1.** (continued) - Data and indicators.

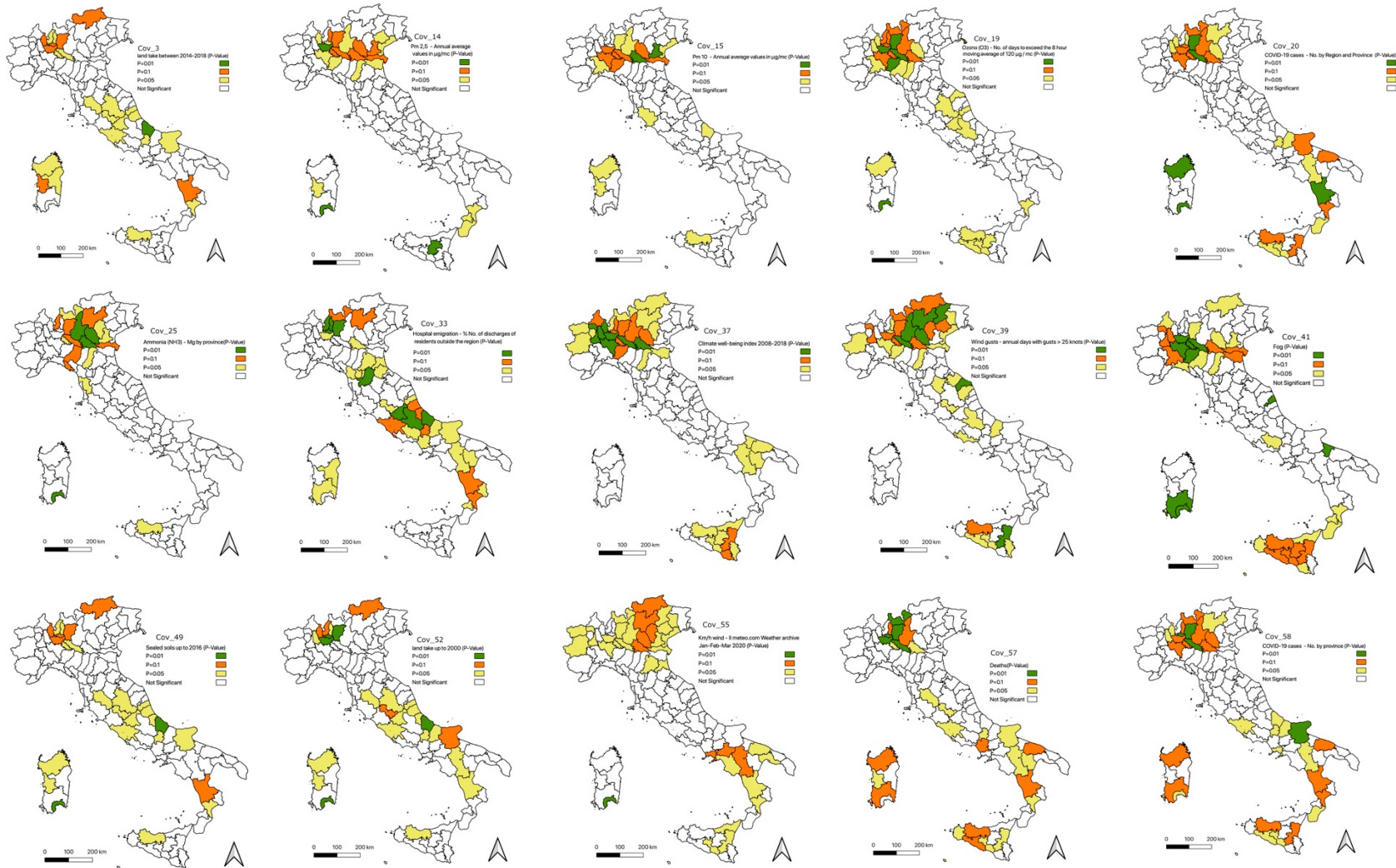
Data / Index	Source	Link
COVID-19 cases - No. by province	ITALIAN MINISTRY OF HEALTH 2020	<a href="http://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=italiano&amp;id=5351&amp;area=nuovoCoronavirus&amp;menu=vuoto">http://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=italiano&amp;id=5351&amp;area=nuovoCoronavirus&amp;menu=vuoto</a>
Global climate change	NASA 2020	<a href="https://climate.nasa.gov/climate_resource_center/interactives">https://climate.nasa.gov/climate_resource_center/interactives</a>
COVID-19 cases - No. by Region and Province	DPC 2020	<a href="http://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=italiano&amp;id=5351&amp;area=nuovoCoronavirus&amp;menu=vuoto">http://www.salute.gov.it/portale/nuovocoronavirus/dettaglioContenutiNuovoCoronavirus.jsp?lingua=italiano&amp;id=5351&amp;area=nuovoCoronavirus&amp;menu=vuoto</a>
COVID-19 Bulletins	ISS 2020	<a href="https://www.epicentro.iss.it/">https://www.epicentro.iss.it/</a>
Report - Issue 1-3	WHO 2020	<a href="http://www.emro.who.int/health-topics/corona-virus/situation-reports.html">http://www.emro.who.int/health-topics/corona-virus/situation-reports.html</a>

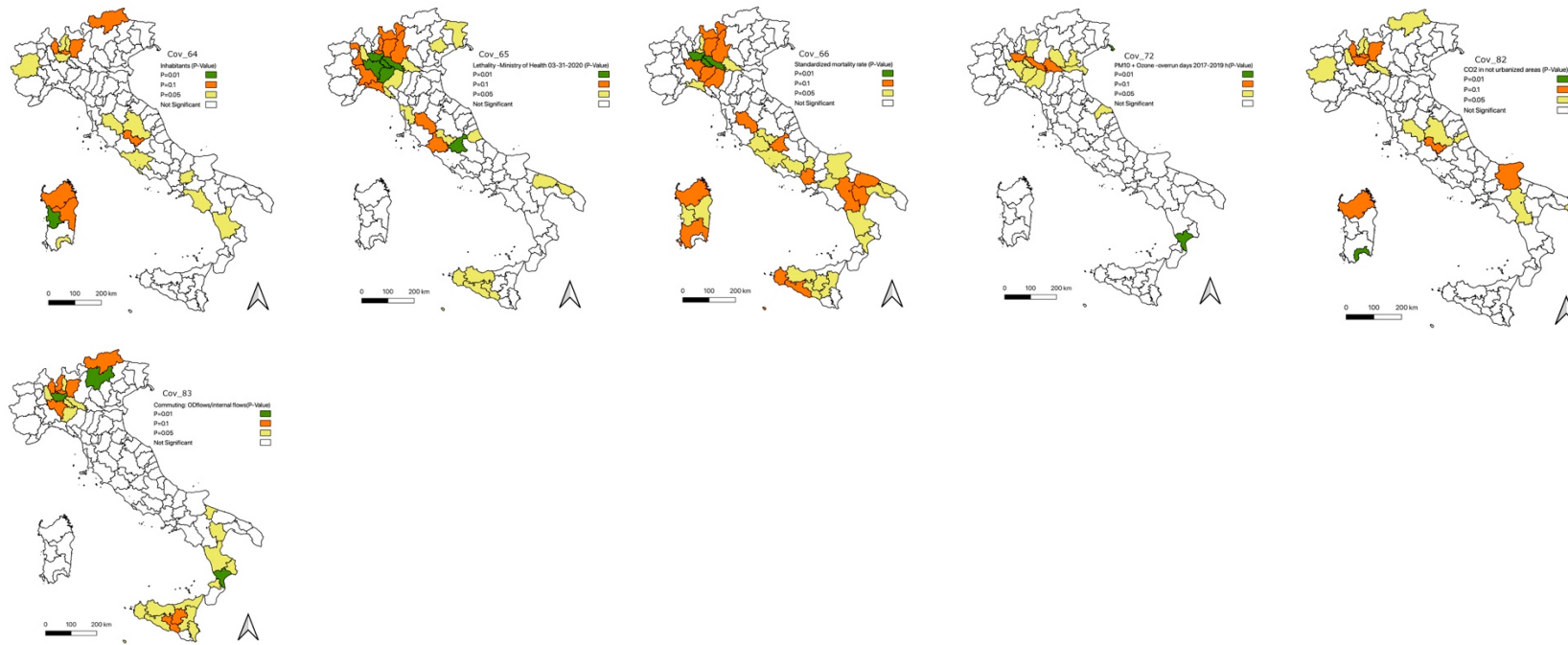
**Table S2.** - Data Viewers.

Viewers	Source	Link
Air transport connections	Flight Connections	<a href="https://www.flightconnections.com/">https://www.flightconnections.com/</a>
Air transport connections (2)	Flight Radar 24	<a href="https://www.flightradar24.com/">https://www.flightradar24.com/</a>
Maritime transport	Marine Traffic	<a href="http://www.marinetraffic.com">http://www.marinetraffic.com</a>
Weather	Ilmeteo.it	<a href="https://www.ilmeteo.it/">https://www.ilmeteo.it/</a>
Wind	Windfinder	<a href="https://it.windfinder.com/">https://it.windfinder.com/</a>
Air quality	Aqicn.org	<a href="https://aqicn.org/map/italy/">https://aqicn.org/map/italy/</a>
Air quality	NY Times	<a href="https://www.nytimes.com/interactive/2019/12/02/climate/air-pollution-compare-ar-ul.html">https://www.nytimes.com/interactive/2019/12/02/climate/air-pollution-compare-ar-ul.html</a>
Air quality	Waqi - World Air Quality Index	<a href="https://waqi.info/it/">https://waqi.info/it/</a>
Air quality	Breezometer	<a href="https://breezometer.com/air-quality-map/">https://breezometer.com/air-quality-map/</a>

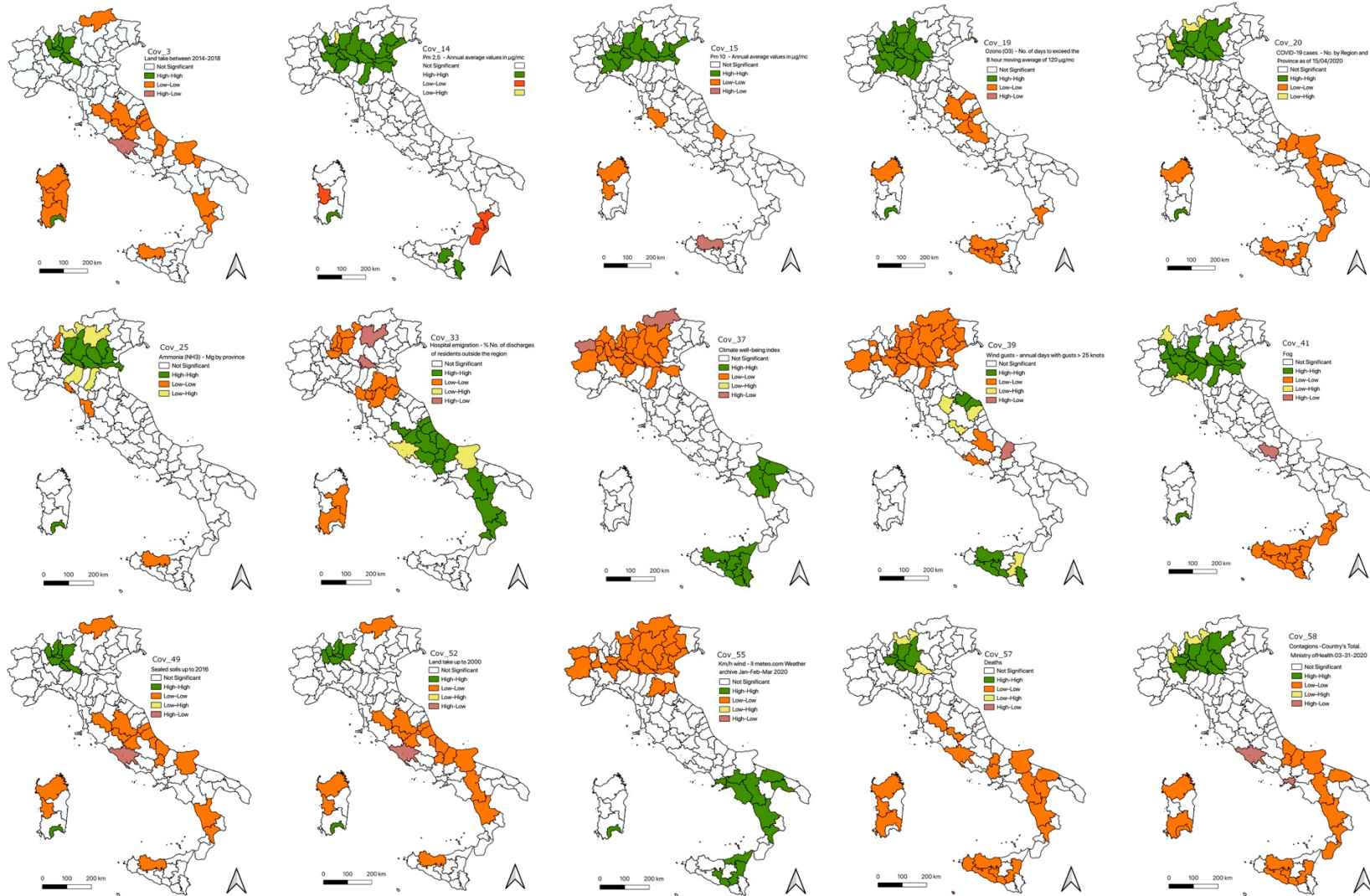
Table S3. - Data Dashboards.

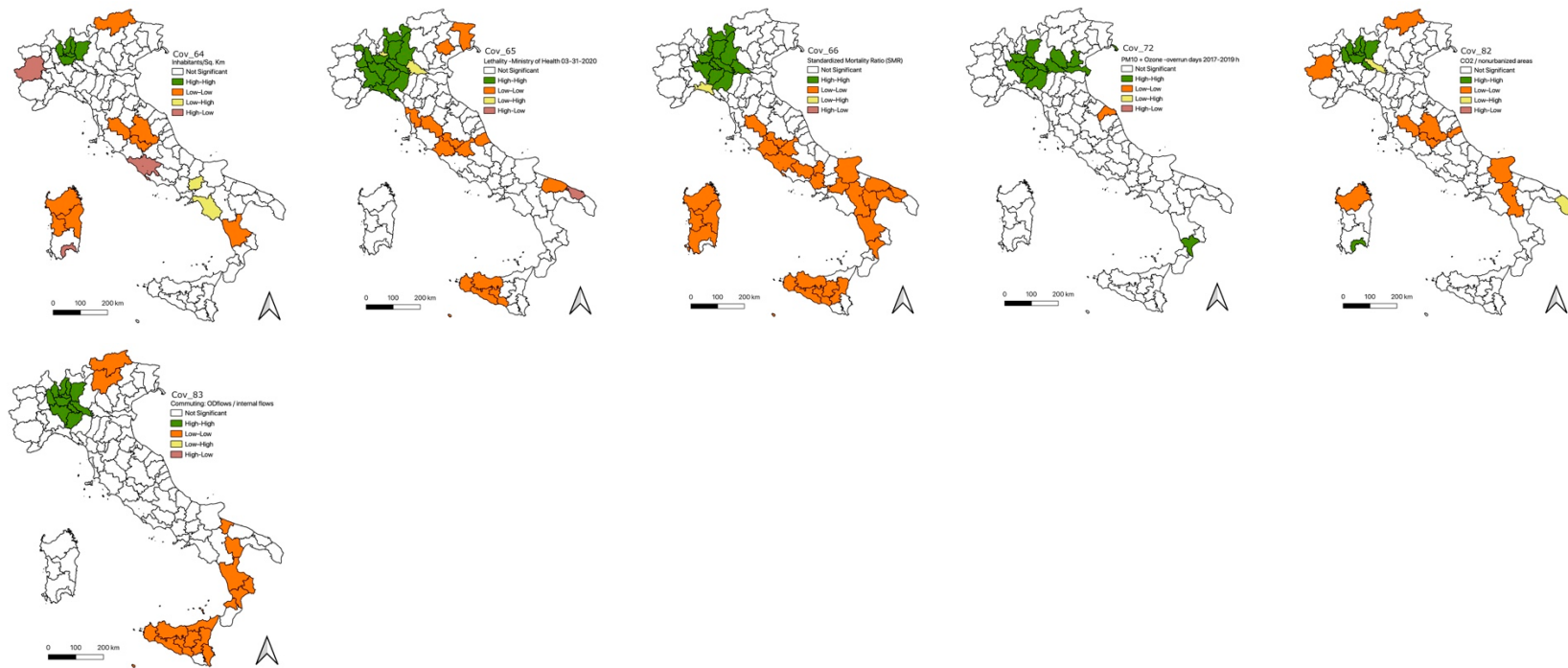
Dashboard	Source	Link
Covid-19 confimed cases, deaths	Civil Protection Department	<a href="http://opendatadpc.maps.arcgis.com/apps/opsdashboard/index.html#/b0c68bce2cce478eaac82fe38d4138b1">http://opendatadpc.maps.arcgis.com/apps/opsdashboard/index.html#/b0c68bce2cce478eaac82fe38d4138b1</a>
Covid-19 confimed cases, deaths	WHO Johns Hopkins CORONAVIRUS	<a href="https://who.sprinklr.com/">https://who.sprinklr.com/</a>
Covid-19 confimed cases, deaths	RESOURCE CENTER	<a href="https://coronavirus.jhu.edu/map.html">https://coronavirus.jhu.edu/map.html</a>
Deaths (municipalities)	#IOCONTO	<a href="https://www.ioconto.org/">https://www.ioconto.org/</a>
Covid-19 confimed cases, deaths	WORLDMETER	<a href="https://www.worldometers.info/coronavirus/">https://www.worldometers.info/coronavirus/</a>
Covid-19 confimed cases, deaths	TABLEAU	<a href="https://www.tableau.com/covid-19-coronavirus-data-resources">https://www.tableau.com/covid-19-coronavirus-data-resources</a>
Covid-19 confimed cases, deaths	IL SOLE 24 ORE	<a href="https://lab24.ilsole24ore.com/coronavirus/">https://lab24.ilsole24ore.com/coronavirus/</a>





**Figure S1.** P-Values on variable used in the LISA analysis (see Table A2 in Appendix A). Variables: 3 – 83. Source: Our elaborations from data on Table A1 and A2 with GeoDa (<https://geodacenter.github.io/>).





**Figure S2.** LISA maps on variables 3 - 83 used in the analysis (see Table A2 in Appendix A). Source: Our elaborations from data on Table A1 and A2 with GeoDa (<https://geodacenter.github.io/>).