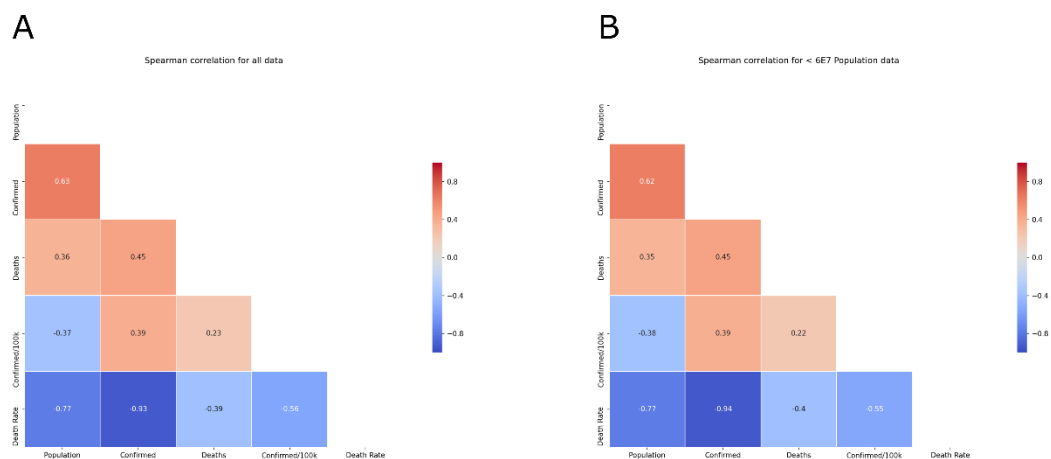
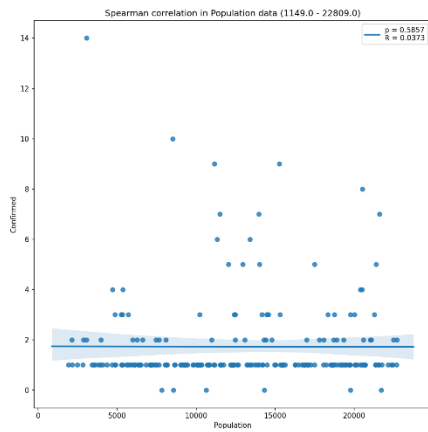


**Figure 01. The distribution of the analyzed data is not Gaussian. The values of (A) population, (B) confirmed cases and (C) deaths are log-normal distribution.**

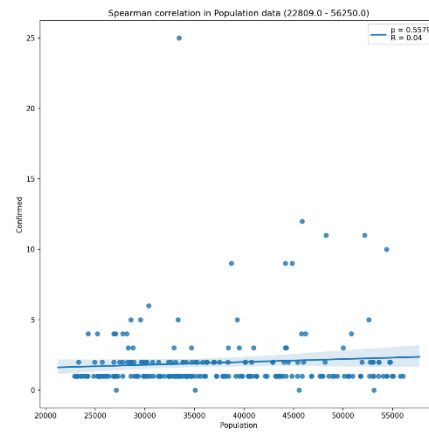


**Figure 02. Population has a positive correlation ( $R = 0.63$ ) with the confirmed cases.** Spearman correlation between population, confirmed cases, deaths, confirmed/100k habitants and death rate in all 542 cities (A) or 540 cities with population lowest of 6.000.000 (B).

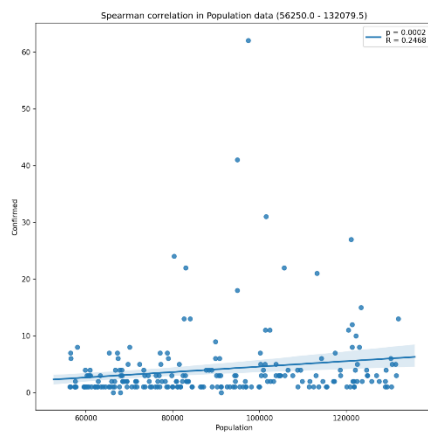
A



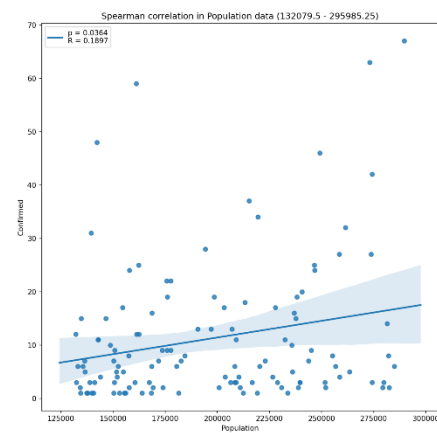
B



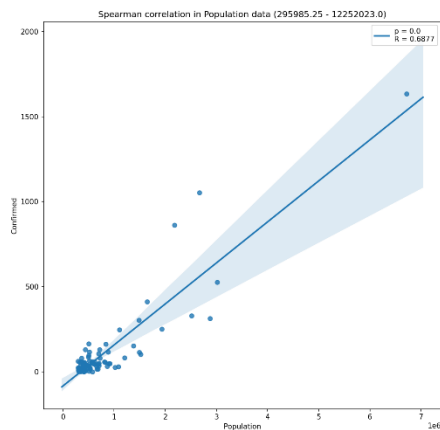
C



D

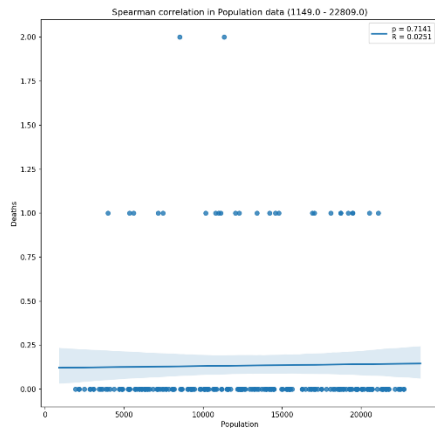


E

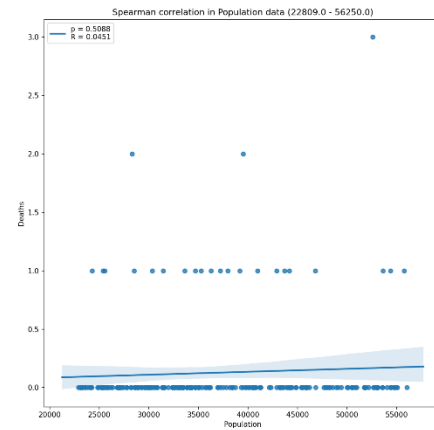


**Figure 03. Positive correlation ( $R = 0.6994$ ) between population and confirmed cases occurs only in cities with population up to 296.844 habitants.** Spearman correlation and linear regression model (95% confidence) between population and confirmed cases in 5 quartiles distribution of population. (A) 1149 – 23.286, (B) 23.286 – 56.428, (C) 56.428 – 132.709, (D) 132.709 – 296.844 and (E) 296.844 – 12.252.023 population

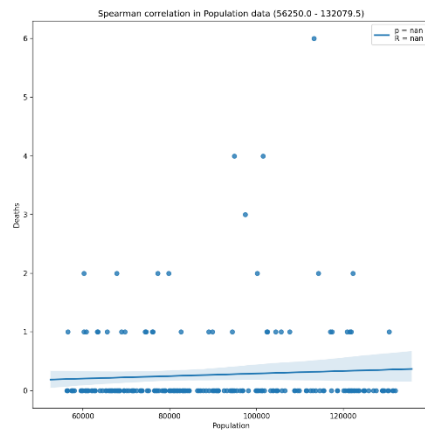
A



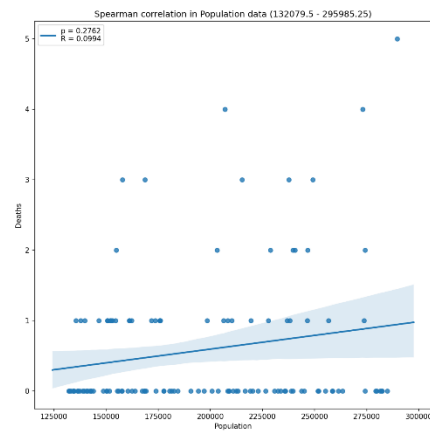
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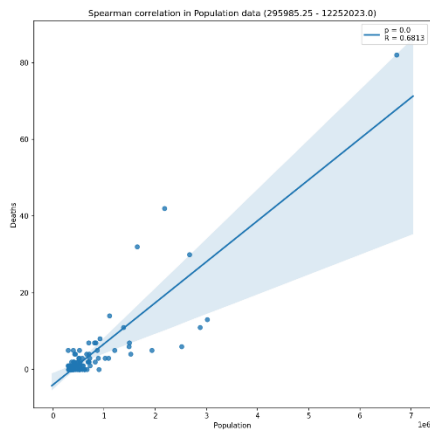
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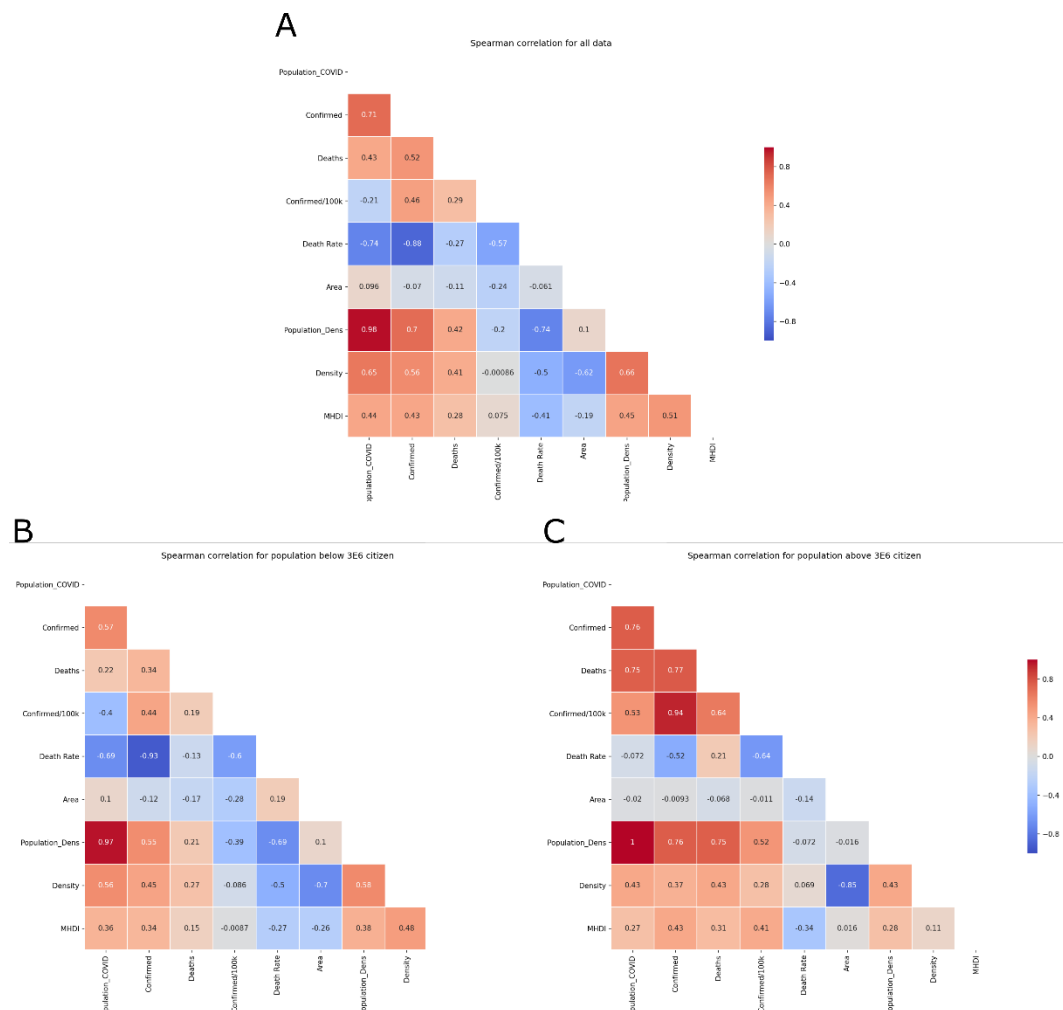
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E

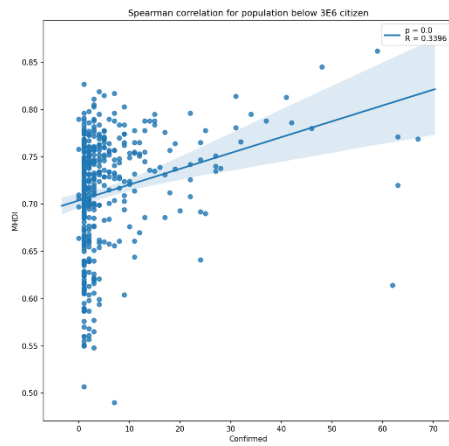


**Figure 04. Positive correlation ( $R = 0.6449$ ) between population and deaths occurs only in cities with population up to 296.844 habitants. Spearman correlation and linear regression model (95% confidence) between population and deaths in 5 quartiles distribution of population. (A) 1149 – 23.286, (B) 23.286 – 56.428, (C) 56.428 – 132.709, (D) 132.709 – 296.844 and (E) 296.844 – 12.252.023 population.**

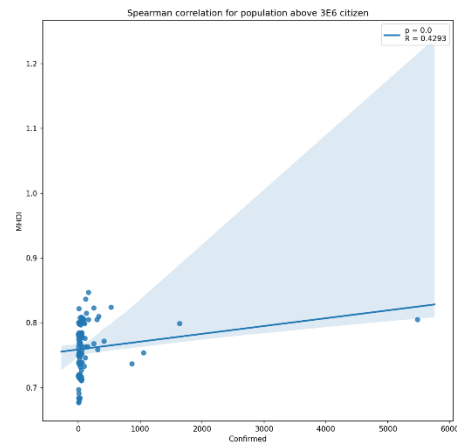


**Figure 05. The Municipalities Human Development Index (MHDI) and the demographic density of the municipalities are positively correlated with the number of confirmed cases.** Spearman's correlation for the different characteristics of municipalities with confirmed cases. (A) For all municipalities, positive correlation for demographic density ( $R = 0.56$ ) and MHDI ( $R = 0.43$ ). (B) For all municipalities with less than 300,000 inhabitants, a positive correlation for demographic density ( $R = 0.45$ ) and MHDI ( $R = 0.34$ ). (C) For all municipalities with more than 300,000 inhabitants, a positive correlation for demographic density ( $R = 0.37$ ) and MHDI ( $R = 0.43$ ).

A

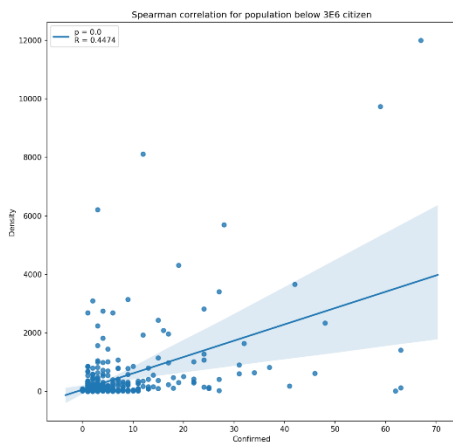


B

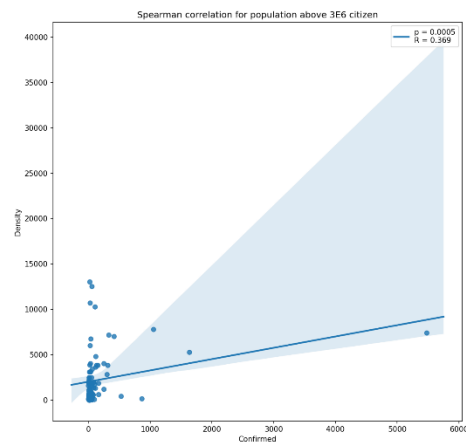


**Figure 06. The Municipalities Human Development Index (MHDl) has a positive correlation with the number of positive cases.** Spearman's correlation for MHDl for all (A) municipalities with less than 300,000 inhabitants ( $R = 0.3396$ ), or (B) municipalities with more than 300,000 inhabitants ( $R = 0.4293$ ).

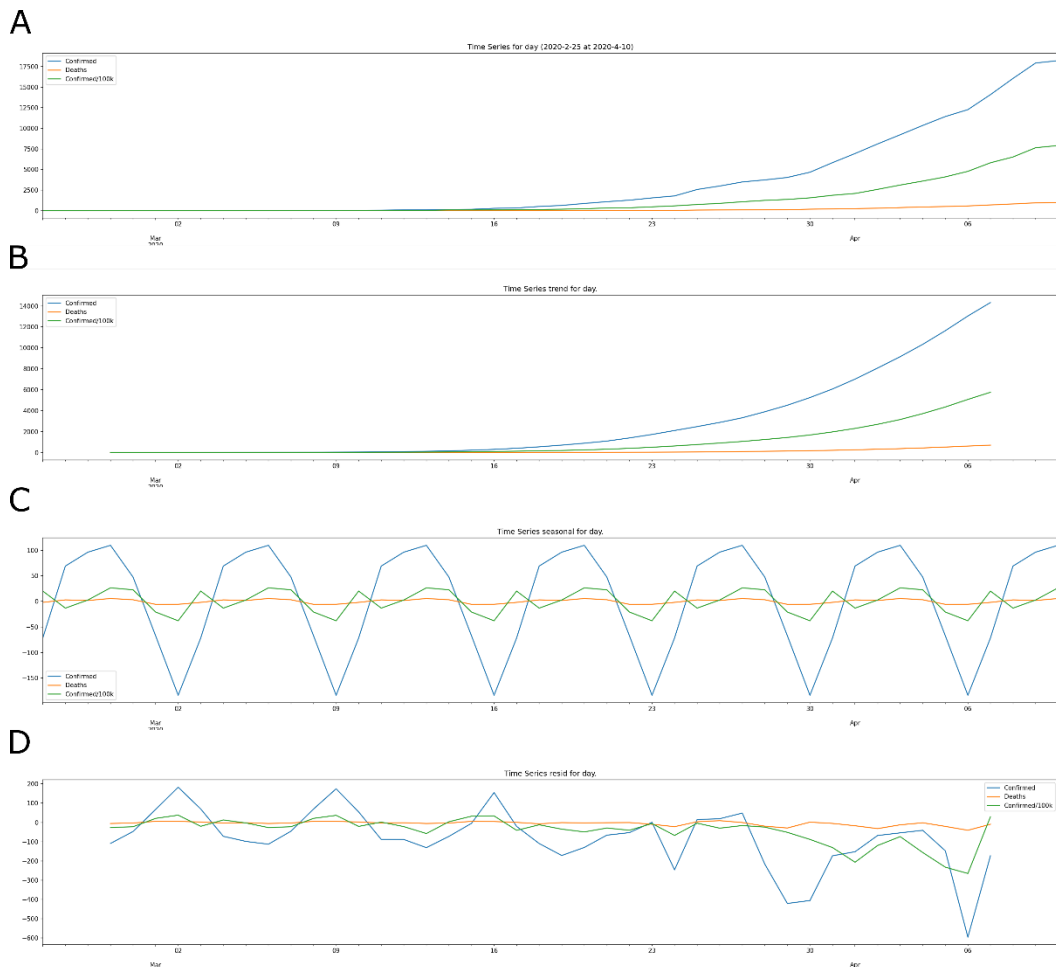
A



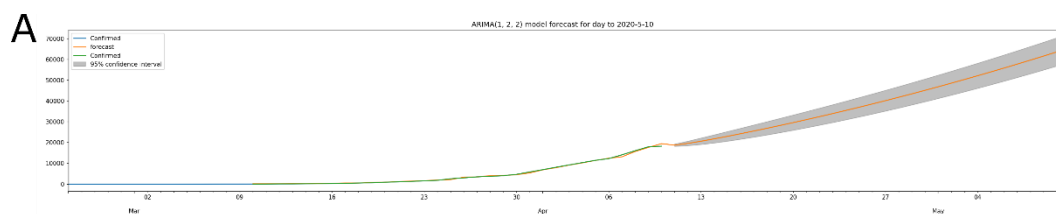
B



**Figure 07. Demographic density has a positive correlation with the number of positive cases.** Spearman correlation for demographic density for all (A) municipalities with less than 300,000 inhabitants ( $R = 0.4474$ ), or (B) municipalities with more than 300,000 inhabitants ( $R = 0.369$ ).



**Figure 08. The number of confirmed cases and ratio of confirmed / 100k inhabitants shows a clear upward trend. Decomposition of the time series of the daily values of number of confirmed cases (blue), deaths (orange) and ratio of confirmed / 100k inhabitants (green), in components (A) raw data, (B) trends, (C) seasonality and (D) randomness.**



**Figure 09. Average estimate of 63,638 confirmed cases in 30 days. ARIMA model (1,2,2) of forecast of confirmed cases until 05/10/2020. Confirmed cases (blue), forecast (orange), model fit analysis (green) and forecast interval with 95% confidence (gray). Up to the end date, between 56,829 and 70,447 cases are expected.**