Global health-care facilities and their adequacy to cope during the evolving epidemic; Towards predictability.

Andreas Skouloudis
41 days in lockdown (expected 17 days more)

John Balbus
National Inst. of Environmental Health Sciences
31 days (in partial) lockdown

In Italy mortality dropped to 450-550/day.

17 Apr. 2020

Serving society
Stimulating innovation
Supporting legislation

Data predictions ... can anticipate and rationalize the relocation of resources 1/2

Data from time series analysis.
Important deviations from national data.
Different climate zones and different approaches are visible.
Similar zones can follow same trendlines.
Peak date might differ in various regions.
After-peak trendlines will also differentiate.
Other meteorological co-founders need to examined.
Data predictions ... can anticipate and rationalize the relocation of resources 2/2.

Weighting the trend and populating the datasets:

<table>
<thead>
<tr>
<th>Region</th>
<th>Population Density per Km²</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>Veneto</td>
<td>266.5</td>
<td>4,905,037</td>
</tr>
<tr>
<td>Lombardy</td>
<td>420.6</td>
<td>10,036,258</td>
</tr>
<tr>
<td>Marche</td>
<td>162.9</td>
<td>1,531,753</td>
</tr>
<tr>
<td>Basilicata</td>
<td>56.3</td>
<td>567,118</td>
</tr>
</tbody>
</table>

Conclusions from Big-data handling and from coupling demographic, regional geography and climate.

Four early remarks with potential impacts on Health Care Facilities (HCF).

1. The evolution in Italy has unique features because it involves the different climate zones with different outcomes (even with similar restrictions).

2. The deviation from “exponential increase” depends on different timing of circulation restrictions. Hence, different mortality (Italy, Spain, Greece and US – and perhaps China as additional).

3. As we see the time series in North Sweden, Canada and Russia validate the dependence on climate and “act anticipatory” for the autumn and winter months at the Southern hemisphere.

4. Importance of Satellite technology in understanding as well as in compliance to restrictions.

Join us at the HCF sub-group:
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