**A MISSED OPPORTUNITY TO LIMIT COVID19 SPREAD: HOW 6 MONTHS OF RELAXATION OF CONFINEMENT MEASURES DRAMATICALLY INCREASED THE NUMBER OF INFECTIONS AND THE SEROPREVALENCE IN THE GENERAL POPULATION IN A PREVIOUSLY LOW INCIDENCE AREA**

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Dear Sir

We recently published in the Journal of Medical Virology (1) data from an ongoing study on the seroprevalence for anti SARS-CoV-2 antibodies in blood donors from Foggia province, a low incidence area from Apulia, South Eastern Italy.

At that time (the so termed “first wave” period), as for June 8, 1162 cases had been diagnosed in Foggia in three months, (the first case occurring in March the 1th, 2020) with an incidence of 187 cases/100.000 inhabitants (5) *and* we could detect a seroprevalence in a series of healthy blood donors as low as 0.9%.

We continued our study and the results obtained appeared so concerning to prompt us to write now this report.

We remind that, due to the alarm for the rapid spread of COVID-19 outbreack, Italy had experienced very restricted containement measures for 69 days, in the period March 9/ May 19 2020.

These included strict mobility limitations, shutdown of schools and universities, stop of sport events, mandatory use of masks, social distancing, massive identification and isolation of infected cases and their contacts, suspension of all non essential business in the whole nation, wide implementation of smart working

The intended effects of this tight lockdown were surely obtained since the outbreack was promptly stemmed in the whole country and, in particolar, in the Foggia area, as can be seen in Table 1: new diagnosis dropped from 521 in April to 99 in May and 17 in June. This was largely attributable to the containement measures that were thereafter dramatically alleviated.

Starting from September and with more evidence in October a rapid spread in new diagnosed infections was observed that correlated with a gradually increasing seroprevalence rate and this have several explanations.

It is generally accepted that among the restrictive measures the most effective in reducing the transmission rate there is the reduction of mobility. The relaxation of mobility reductions occurred in the summer (holiday) season and this was mainly due to the heavy economical consequences that the loss of the turistic season could cause in a country with a strong tourist vocation like Italy.

As a consequence we observed several people travelling for vacation moving through regions with different prevalence of infection and we can expect that this caused a spread of the virus nationwide. The South of Italy is a very attractive area for the country- and seaside tourism and it was not heavily affected by COVID 19 during the first wave and this made it an even more desirable holiday destination. But we can argue that guesting individuals from more heavily affected regions caused a wide circulation of the virus.

Furthermore the decreased number of new infections induced an unmotivated optimism regarding a possible second wave of COVID 19 that, along with incautious declarations by certain scientists regarding a loss of pathogenicity of the virus, favoured a loss of adherence to preventive measures. This had devastating effects in touristic areas and especially among young people.

Gathering on the beachs, crowded pubs and discoteques were quite common during the apparently “COVID-free” summer

Even in a low incidence area like Foggia province the increase in new COVID 19 cases in August and September was evident but this was taken lightly by authorities. Reopening of schools in September was possibly the hardest blow. Scholars in a classroom, if spacing is guaranteed, are probably not at risk. But public transports and methods of access to the schools were not organized. In particular public transports must to be considered risky because of difficulties in maintaining social distancing, for the presence of touch points like handrails and because they are enclosed spaces that make easier virus spread. This surely contributed to increase the number of infections in young individuals, that as we know are often asymptomatic and then unknown spreaders of the virus increate, causing mainly family clusters.

The consequences of these political decisions are clearly written in the numbers we present here: up to 2527 diagnosis in October and 8175 in November.

Although vaccination campaigns started, several months will be needed to immunize the majority of the population.

Restrictions are hard to tolerate and the deleterious economical consequences are evident. But we have seen the consequences of a strong intervention that with heavy measures almost blocked a wide virus diffusion in a whole country as well as the drama of an irresponsible loss of attention and social planning that nullified efforts and results obtained.

The current system of on-again/off-again curbs failed to prevent coronavirus spread and new, more aggressive, viral variants are circulating. Italy probably needs to adopt more strict lockdown measures in the whole country.

We strongly hope that health authorities will learn from the recent experience: an old italian byword claims that the pitiful doctor makes the sore worse. We should not repeat mistakes.

RELATIONSHIPS BETWEEN NUMBER OF NEW COVID 19 DIAGNOSIS (cases) AND SEROPREVALENCE FOR ANTI SARS COV 2 ANTIBODIES IN BLOOD DONORS

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 Apr may jun jul aug sep oct nov

Cases 521 99 17 15 195 545 2527 8175

Seroprev 1% 0.9% 1.1% 1% 1.1% 1.6% 6.7% 10.7%

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Task force COVID-19 del Dipartimento Malattie Infettive e Servizio di Informatica, Istituto Superiore di Sanità. Epidemia COVID-19, Aggiornamento nazionale: 2 dicembre 2020e 2020https://www.epicentro.iss.it/coronavirus/bollettino/Bollettino-sorveglianza-integrata-COVID-19\_2-dicembre-2020.pdf

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Reopening schools during the COVID-19 pandemic: governments must balance the uncertainty and risks of reopening schools against the clear harms associated with prolonged closure

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WHY SCHOOLS PROBABLY AREN’T COVID HOTSPOTS Dyani Lewis Nature | Vol 587 | 5 November 2020 17