

Covid19

A perspective from Lombardia

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Selection of elements

1. One month history and current situation
2. Top priorities
3. Main bottlenecks
4. Public actions (regional)
5. How economic and R&I system is helping and reacting

SOURCES: Lombardia Notizie, WHO and other online credible media.

One month history

Lombardia situation of Covid19

21st of February → patient 1 identified in Codogno (Lodi), Lombardia (immediately defined as Red Zone from the Region, related to **11 municipalities**)

26th of February → decision of Italian Health Council **to test only symptomatic people**

Until 26th of March → Growing number of contagious people with 2,6 coefficient or spread

Since 27th of March → Governant of Lombardia says “***infections are slowing down***”

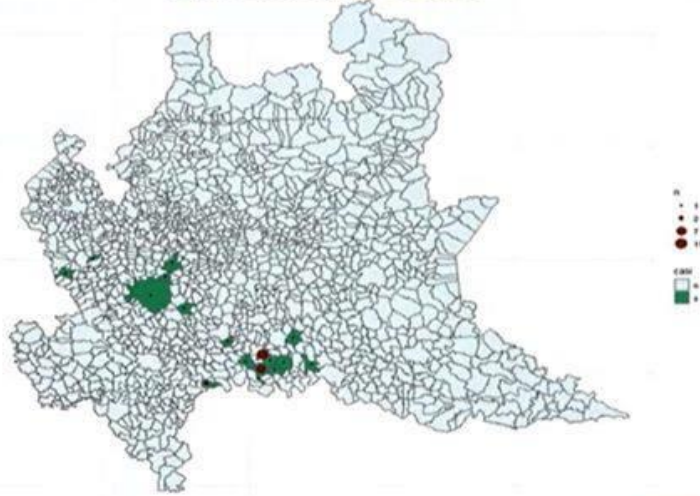
(making average of 5 days in order to have real evidence of slowing)

Current situation in Lombardia: **40.000 cases, 5.944 death**, on 10mil. of inhabitants

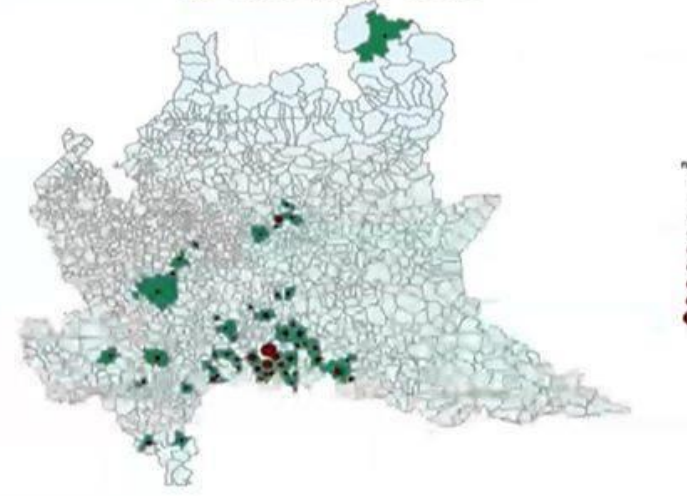
Current situation in Italy: **+93.000 cases, 10.023 death**, on 60mil. of inhabitants

One in five of the viruses died (in the world) is from Lombardy (considering official data)

SABATO
22 FEBBRAIO 2020



MARTEDI'
25 FEBBRAIO 2020



VENERDI'
28 FEBBRAIO 2020

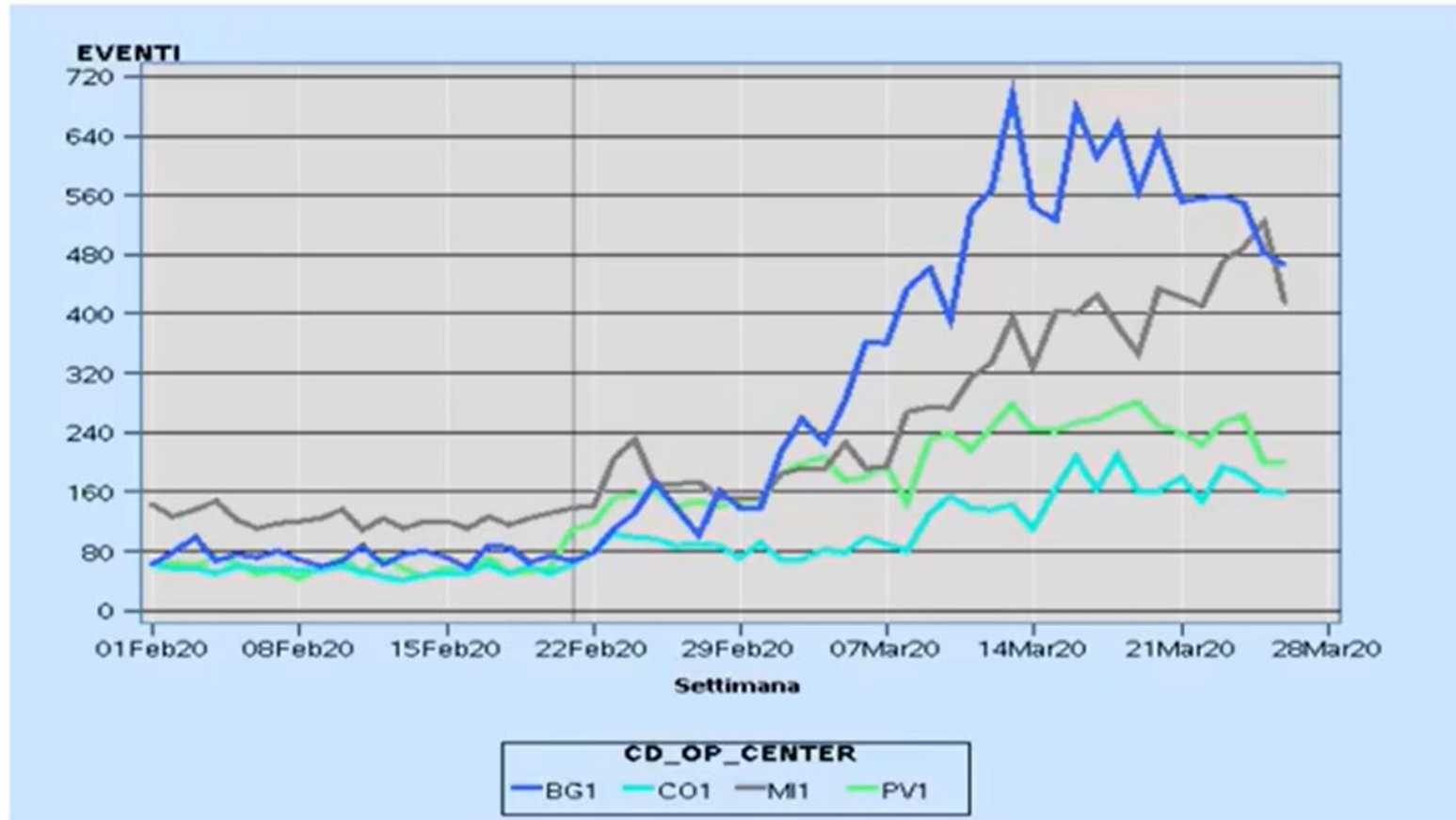


GIOVEDI'
5 MARZO 2020





TREND OF FIRST AID ACCESS



Top priorities

Lombardia situation of Covid19

1. **Switch from measures designed to slow down the infection, to targeted measures to manage it, based on Contact Tracing** (complementary measures), following the transmission chains.

(Lombardia started the Contact Tracing since the first day.)

- More than **5.000 test per day** (110.000 done till now), now thanks to **22 different labs** in Lombardia

2. **Protect the most precious assets:** medical workers and health skilled people, preventing infection
→ In Italy more than **6.000 medical workers** are positive to Covid (over 50 death between them)
(total medical workers in Lombardia are 300.000)

- Everyday temperature check to **medical workers**, if over 37,5° they make test

Main bottlenecks

1. Low availability of **reagents** for testing
2. **Targeted testing based on Contact Tracing** (not only on symptomatic but also pre-symptomatic, as recently declared by WHO). Current problem in Italy are:
 - Unleash bureaucracy
 - New protocols to accelerate testing
3. **Family incubators** and so-called **nosocomial infections**
4. Low availability of **Protection tools** (masks, glasses, gowns, igienic gel, so on)
 - Dramatic problem of individual protection tools in the **South of Italy**, where first people who diffuse the Covid were medical workers (without protection)

Public actions (regional)

(1/2)

- Rapid development and improvement of a **new organizational model of all public health system**, at regional level, coordinating Hospitals, Clinics, Emergency, Health residences..
- **Open call for new doctors and medical workers**
- **Empowerment of the home health networks** (special unit of continuity of care) used in Lombardy, treat at home and give instruction on how to behave (then monitoring)
- **Settlement of surveillance stays** (Hotels and Monasteries, converted into isolation stays)
- Coordinating the collection of tools / materials (masks/devices..) from **company productions and donations**

Public actions (regional)

(2/2)

Construction of a **new Hospital** inside 25.000sm of Milano Fair (new 250 places for intensive therapy)

Construction of **4 field hospital and military hospital** (Milano, Crema, Cremona, Bergamo)

Help from outside with tons of medical tools:

- 32 medical workers from **Cuba** (now in Crema)
- 102 operators from **Russia** (now in Bergamo)
- 10 doctors from **China** (now in Rome)

In one month, from 714 to 1600 of intensive therapy places

Practices of other regions

Exemple of Veneto

Veneto Region has organized to arrive to **15 000 test per day**. You as citizen arrive by car near the a location where you have a **swab testing team** (there is a box like Formula1 pit stop, the ***drive-thru*** as Korean model, or at least in the hospital parking)

Exemple of Emilia Romagna

In Emilia Romagna are using 100.000 **serological kits** that will be used for a first screening and have started the ***drive-thru*** test.

At Piacenza doctors are going through the city, reaching 15/20 houses per day (starting from situation with doubts and little syntoms) and making tests. If positive, the patient is going to be treated at home and stay isolated.

How economic and R&I system is helping and reacting (1/2)

- Private labs are joining the network of **testing labs**
- Mutual aid and **fundraising** activities
- **3D printing** companies active for **respirators** (also the idea of Fracassi from a sub-water mask)
- Hundreds of companies are **adapting the production to protection tools** (e.g. Giorgio Armani is realizing thousands of gowns) and donate them (most of them)
- Dozens of companies are **buying them to donate** to the Region
- Companies are working on developing **monitoring systems** and **telemedicine**
- Biomedical and pharmaceutical producers are active on **reagent production**
- Data analytics and business intelligence companies are working on **data analytics and forecast** (with open data)
- **Mobility data** and **mobile geolocation** are used to see and monitor the isolation and slowing of mobility in Lombardia

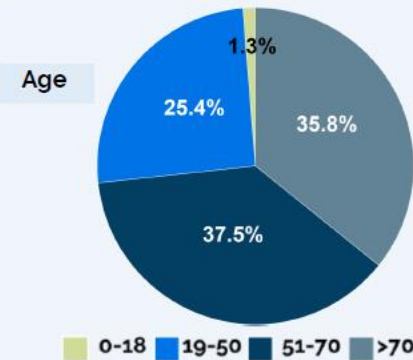
How economic and R&I system is helping and reacting (2/2)

- Politecnico di Milano is releasing studies on **new material for masks** and other tools
- Confindustria Federation, together with Lombardia clusters, is realizing a **mapping of R&I competences** available inside R&D departments (through a survey)
- Private scientific companies active in **diagnostics and vaccines** are realising new **advanced testing systems** to reduce the time of testing (one has been just released by **Diasorin**, reducing from 7 to 1 h and that will be able to achieve 400.000 test within May; other companies are **IRBM, Reithera, Takis**)
- Massive **digitalisation** of services
- Opportunity for **Food Delivery** (e.g. high unexpected growth in delivery fo bakery and pastry shop, apart from traditional delivered food)
- **Widespread canteen** are growing
 - Meals at home for employees (on smart working)
 - Restaurants that are currently not affiliated, can take part and advantage of this opportunity for change and digitalization of their models
 - Menus are changing to consider the different calorie and vitamin needs imposed by the forced quarantine

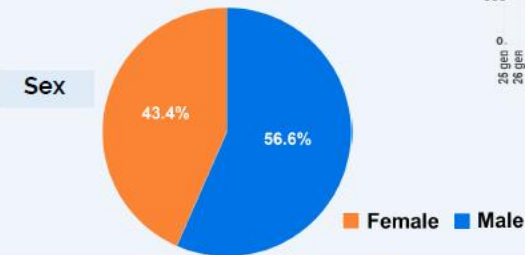
85,308 cases of COVID-19*

7,763 health-care workers[§]

8,460 associated deaths



Median age of cases; **62 years**

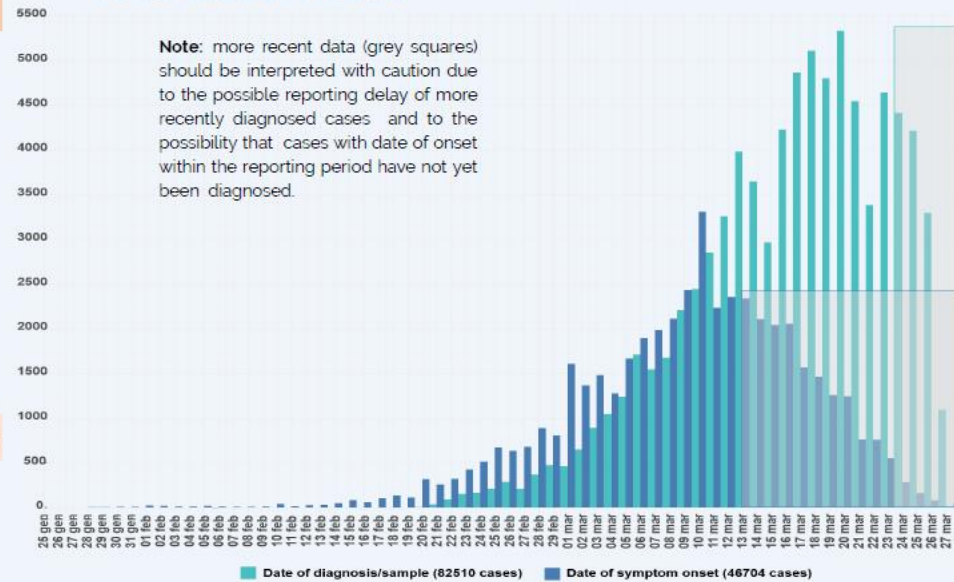


Age (years)	Deaths [n (%)]	CFR [§]
0-9	0 (0%)	0%
10-19	0 (0%)	0%
20-29	1 (0%)	0%
30-39	18 (0.2%)	0.3%
40-49	76 (0.9%)	0.7%
50-59	314 (3.7%)	1.9%
60-69	971 (11.5%)	6.4%
70-79	2967 (35.1%)	18.5%
80-89	3344 (39.5%)	26.2%
>=90	767 (9.1%)	24.8%
Not reported	2 (0%)	0.8%
Total	8460 (100%)	9.9%

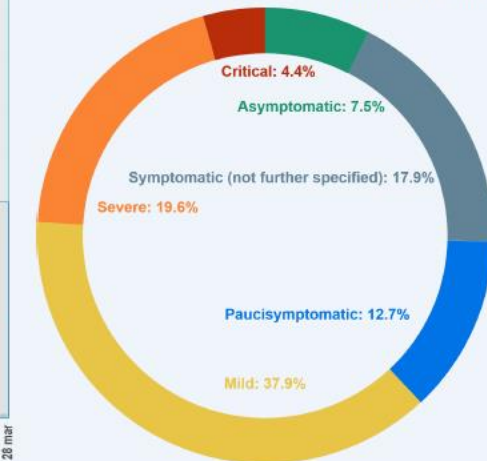
Integrated surveillance of COVID-19 in Italy

(Ordinanza n. 640 del 27/02/2020)

28 March 2020 UPDATE

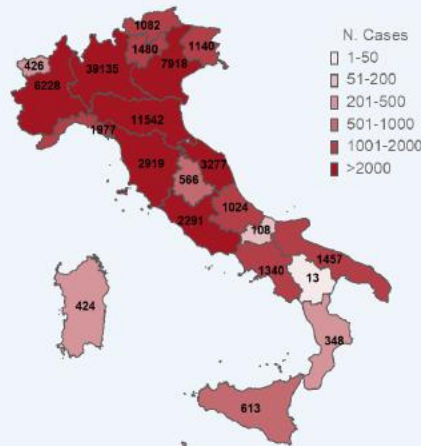


99% of the clinical samples processed were confirmed by the National Reference Laboratory at the Istituto Superiore di Sanità



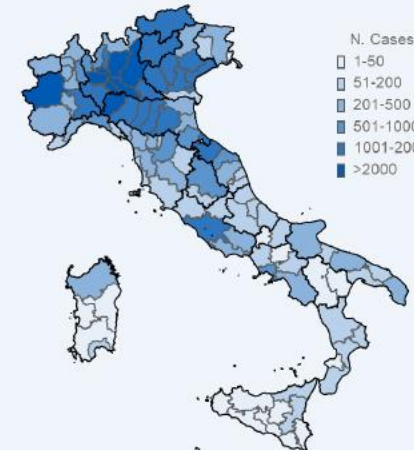
Data available for 25,676 cases

Total number of COVID-19 cases diagnosed by the Italian Regional Reference Laboratories



By Region/Autonomous Province of diagnosis

(data available for 85,308)



By province of residence

(data available for 81,921)

"The case definition considers as a confirmed case any person with laboratory confirmation of virus causing COVID-19 infection, irrespective of clinical signs and symptoms <https://www.ecdc.europa.eu/en/case-definition-and-european-surveillance-human-infection-novel-coronavirus-2019-ncov>

*ISS collects data on cases that tested positive for SARS-COV-2 infection diagnosed by all Italian Regions/Autonomous Provinces. Data could differ from aggregated data from the Italian Ministry of Health and the Italian Civil Protection. [§]The term "health-care worker" is based on the occupation and not on the place of exposure. [§]Case Fatality Rate