

GREEN PASS



Il dubbio non è piacevole
Ma la certezza è ridicola
Voltaire

GREEN PASS :
le premesse che
ne giustificano
l'introduzione
sono fondate?

STATISTICHE e DATI
della LETTERATURA

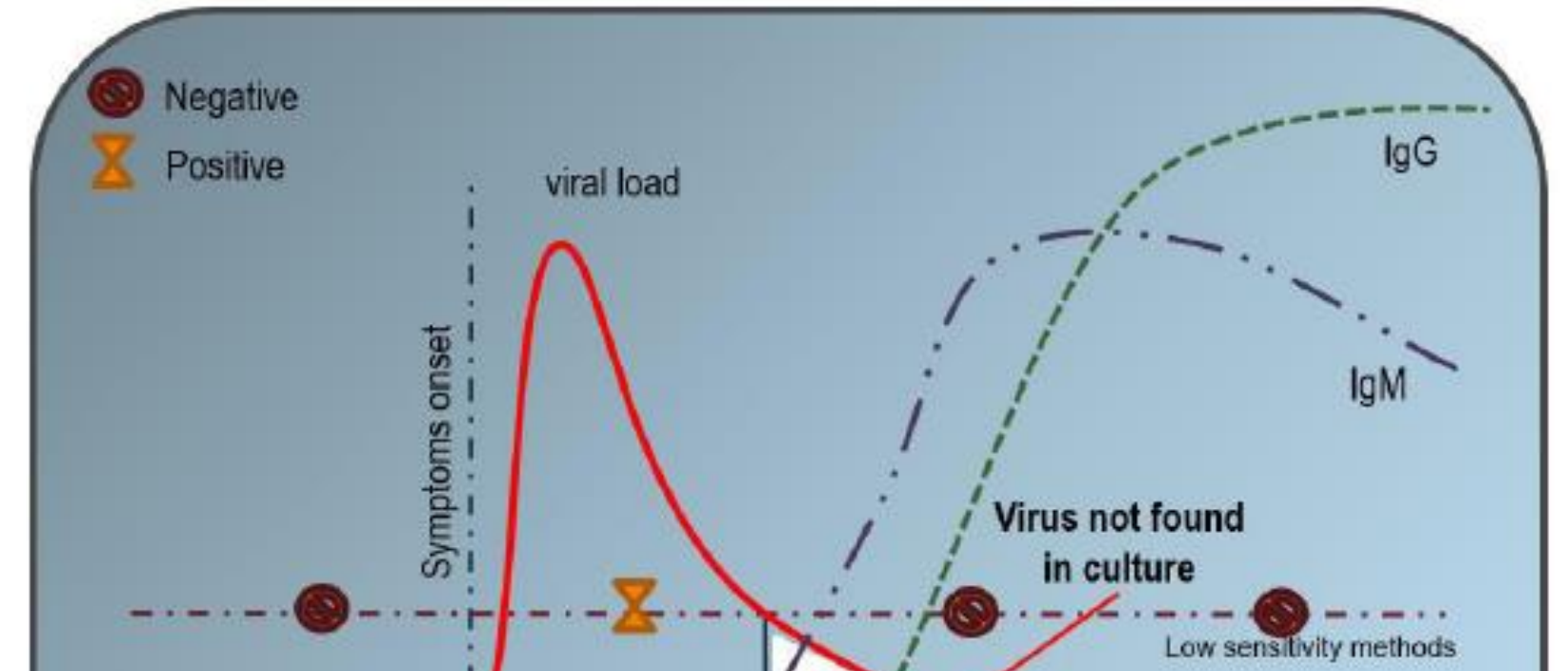


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CONTROVERSIE

Contagiosità e prevalenza della diffusione del virus
SOPRAVALUTAZIONE dei DATI EPIDEMIOLOGICI

INCIDENZA



Systematic Review

Analytical Performance of COVID-19 Detection Methods (RT-PCR): Scientific and Societal Concerns [†]





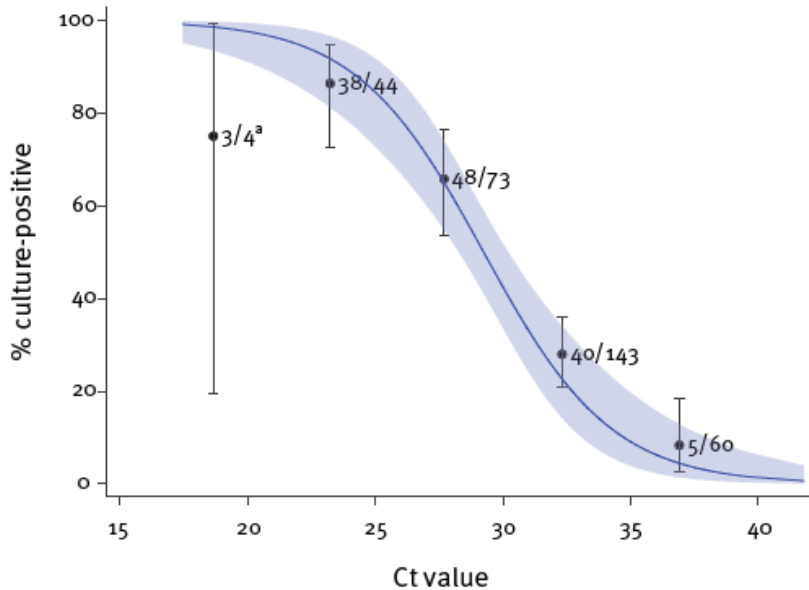
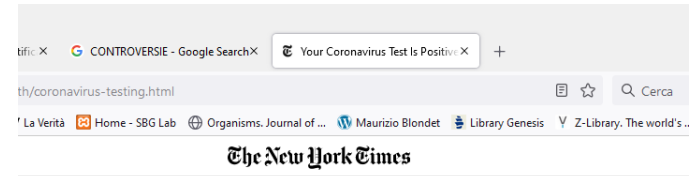
Roberto Verna ^{1,2,3,†} , Walter Alallon ^{4,†}, Masami Murakami ^{5,†}, Catherine P. M. Hayward ^{6,†}, Abdel Halim Harrath ⁷ , Saleh H. Alwasel ⁷, Nairo M. Sumita ^{8,†}, Ozkan Alatas ^{9,†}, Valeria Fedeli ¹⁰, Praveen Sharma ^{11,†}, Andrea Fuso ¹⁰ , Daniela Maria Capuano ^{2,3}, Maria Capalbo ¹², Antonio Angeloni ¹⁰ and Mariano Bizzarri ^{10,*} 

FIGURE 2

Relationship between RT-PCR Ct value and culture positivity in mixed effects logistic regression analysis, SARS-CoV-2, England, January–May 2020 (n = 324)



Al di sopra di una soglia dei cicli di amplificazione (Ct), il virus non è più rintracciabile nell'organismo



Your Coronavirus Test Is Positive. Maybe It Shouldn't Be.

The usual diagnostic tests may simply be too sensitive and too slow to contain the spread of the virus.

In Massachusetts, from 85 to 90 percent of people who tested positive in July with a cycle threshold of 40 would have been deemed negative if the threshold were 30 cycles, Dr. Mina said. “I would say that none of those people should be contact-traced, not one,” he said.

A strong inverse relationship between Ct value and ability to recover infectious virus has been recorded. The estimated OR of recovering infectious virus decreased by 0.67 for each unit increase in Ct value (95% CI: 0.58–0.77)

The estimated probability of recovery of virus from samples with Ct > 35 was 8.3% (95% CI: 2.8%–18.4%).

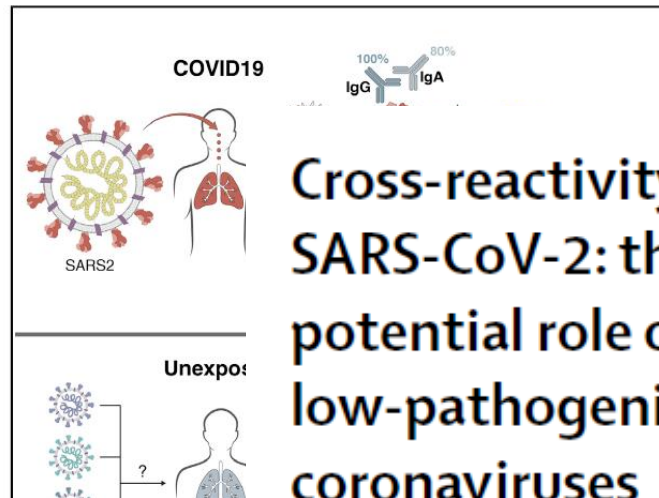
Targets of T Cell Responses to SARS-CoV-2 Coronavirus in Humans with COVID-19 Disease and Unexposed Individuals

Graphical Abstract

Authors

Alba Grifoni, Daniela W
Sydney I. Ramirez, ..., I
Shane Crotty, Alessanc

www.thelancet.com/microbe Vol 1 August 2020



Cross-reactivity towards SARS-CoV-2: the potential role of low-pathogenic human coronaviruses

some years ago, their effect on the global COVID-19 pandemic would be minimal.

Low-pathogenic human coronaviruses are continuously circulating among the global population. Globally, about 5% of acute respiratory tract infections are attributed to these pathogens.

SUMMARY

Understanding: The human body is capable of coronavirus disease 2019 (COVID-19) pathogenesis, and calibration of pandemic control measures. Using HLA class I and II predicted peptide “megapools,” circulating SARS-CoV-2-specific CD8⁺ and CD4⁺ T cells were identified in ~70% and 100% of COVID-19 convalescent patients, respectively. CD4⁺ T cell responses to spike, the main target of most vaccine efforts, were robust and correlated with the magnitude of the anti-SARS-CoV-2 IgG and IgA titers. The M, spike, and N proteins each accounted for 11%–27% of the total CD4⁺ response, with additional responses commonly targeting nsp3, nsp4, ORF3a, and ORF8, among others. For CD8⁺ T cells, spike and M were recognized, with at least eight SARS-CoV-2 ORFs targeted. Importantly, we detected SARS-CoV-2-reactive CD4⁺ T cells in ~40%–60% of unexposed individuals, suggesting cross-reactive T cell recognition between circulating “common cold” coronaviruses and SARS-CoV-2.

07/21/2021: Lab Alert: Changes to CDC RT-PCR for SARS-CoV-2 Testing



Audience: Individuals Performing COVID-19 Testing

Level: Laboratory Alert

After December 31, 2021, CDC will withdraw the request to the U.S. Food and Drug Administration (FDA) for Emergency Use Authorization (EUA) of the CDC 2019-Novel Coronavirus (2019-nCoV) Real-Time RT-PCR Diagnostic Panel, the assay first introduced in February 2020 for detection of SARS-CoV-2 only. CDC is providing this advance notice for clinical laboratories to have adequate time to select and implement one of the many FDA-authorized alternatives.

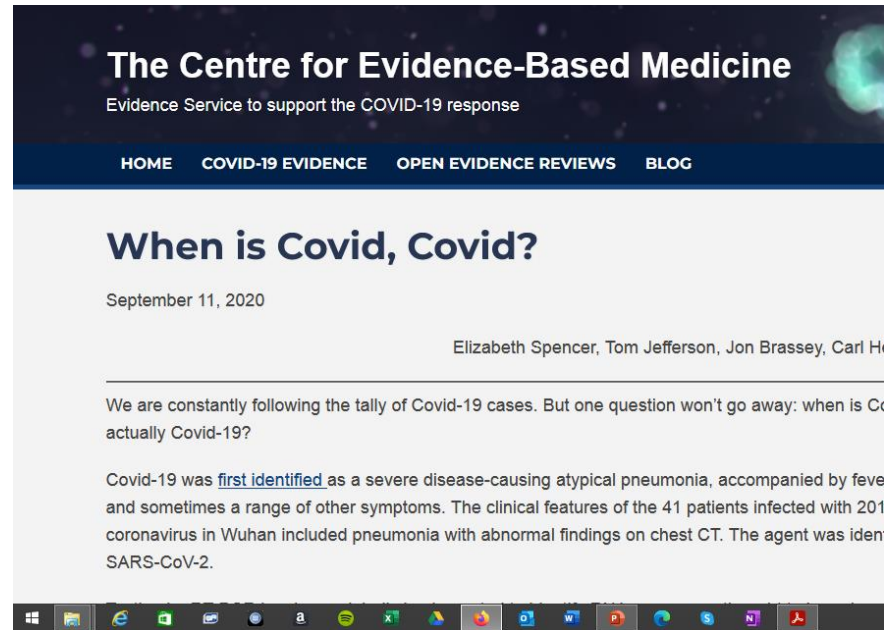
[Visit the FDA website](#) for a list of authorized COVID-19 diagnostic methods. For a summary of the performance of FDA-authorized molecular methods with an FDA reference panel, [visit this page](#).

In preparation for this change, CDC recommends clinical laboratories and testing sites that have been using the CDC 2019-nCoV RT-PCR assay select and begin their transition to another FDA-authorized COVID-19 test. CDC encourages laboratories to consider adoption of a multiplexed method that can facilitate detection and differentiation of SARS-CoV-2 and influenza viruses. Such assays can facilitate continued testing for both influenza and SARS-CoV-2 and can save both time and resources as we head into influenza season. Laboratories and testing sites should validate and verify their selected assay within their facility before beginning clinical testing.

Contagiosità e prevalenza della diffusione del virus
SOPRAVALUTAZIONE dei DATI EPIDEMIOLOGICI

LETALITÀ

- Many countries may count some spurious COVID-19 deaths.
-
- Death certificates are notoriously error-prone in general and may be even more error-prone with COVID-19.
- Adherence to stringent clinical case definitions plus imaging/pathology documentation for SARS-CoV-2 causal impact is often lacking.
- In high-income countries, almost all the deceased have known comorbidities, raising causality debates on whether some deaths are with rather than by COVID-19.³



COMMENTARY

WILEY

Global perspective of COVID-19 epidemiology for a full-cycle pandemic

John P. A. Ioannidis 

Investigating the impact of influenza on excess mortality in all ages in Italy during recent seasons (2013/14–2016/17 seasons)

Aldo Rosano^{a,b,*}, Antonino Bella^a, Francesco Gesualdo^c, Anna Acampora^d, Patrizio Pezzotti^a, Stefano Marchetti^e, Walter Ricciardi^f, Caterina Rizzo^{a,c}

^a National Institutes of Health, Viale Regina Elena, 299, 00198 Rome, Italy

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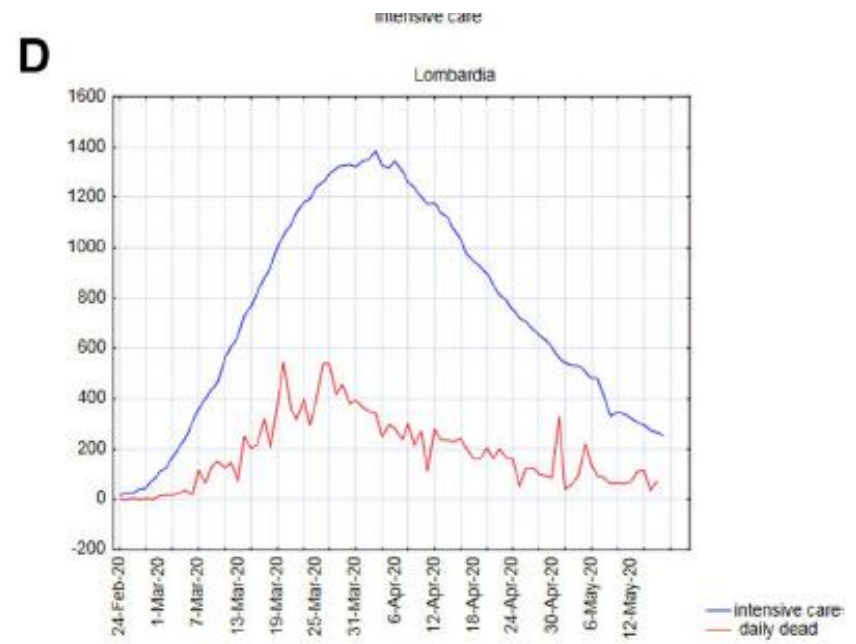
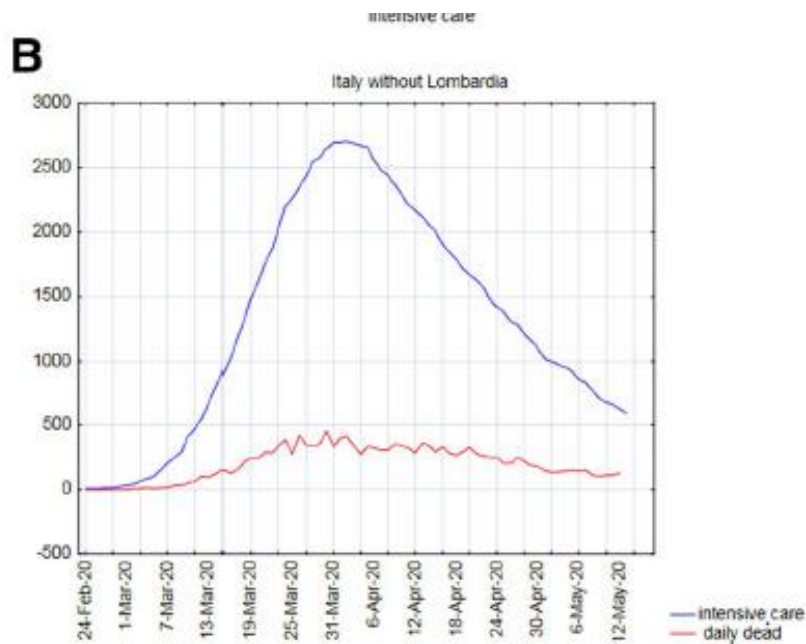
Results: We estimated excess deaths of 7,027, 20,259, 15,801 and 24,981 attributable to influenza epidemics in the 2013/14, 2014/15, 2015/16 and 2016/17, respectively, using the Goldstein index. The average annual mortality excess rate per 100,000 ranged from 11.6 to 41.2 with most of the influenza-associated deaths per year registered among the elderly. However children less than 5 years old also reported a relevant influenza attributable excess death rate in the 2014/15 and 2016/17 seasons (1.05/100,000 and 1.54/100,000 respectively).

Conclusions: Over 68,000 deaths were attributable to influenza epidemics in the study period. The observed excess of deaths is not completely unexpected, given the high number of fragile very old subjects living in Italy. In conclusion, the unpredictability of the influenza virus continues to present a major challenge to health professionals and policy makers. Nonetheless, vaccination remains the most effective means for reducing the burden of influenza, and efforts to increase vaccine coverage and

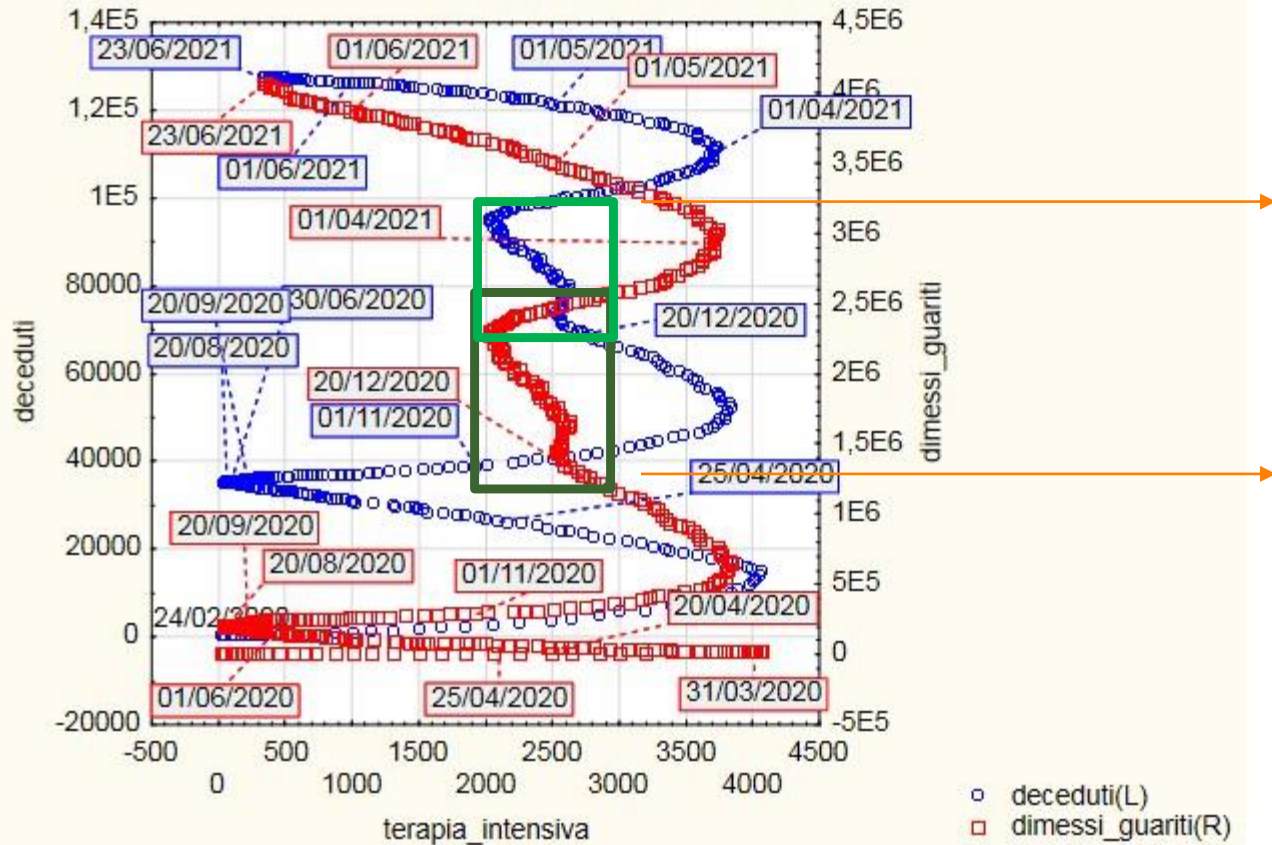
New statistical RI index allow to better track the dynamics of COVID-19 outbreak in Italy

Mariano Bizzari^{1,2,3,4}, Mario Di Traglia³, Alessandro Giuliani³, Annarita Vestri³, Valeria Fedeli³ & Alberto Prestininzi³

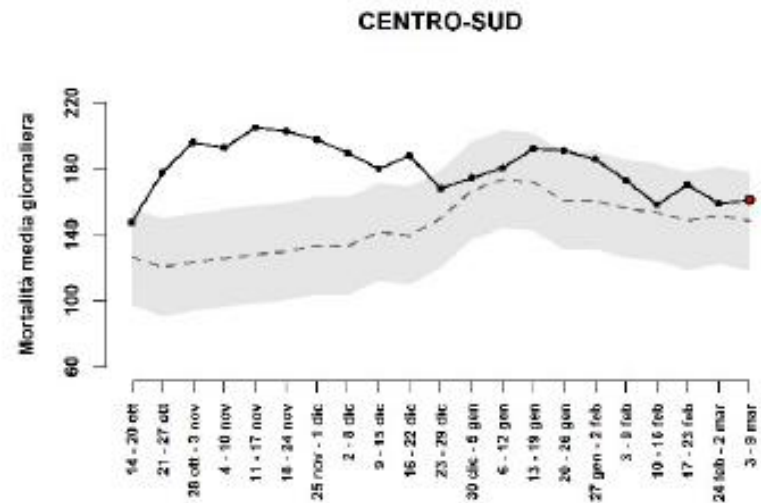
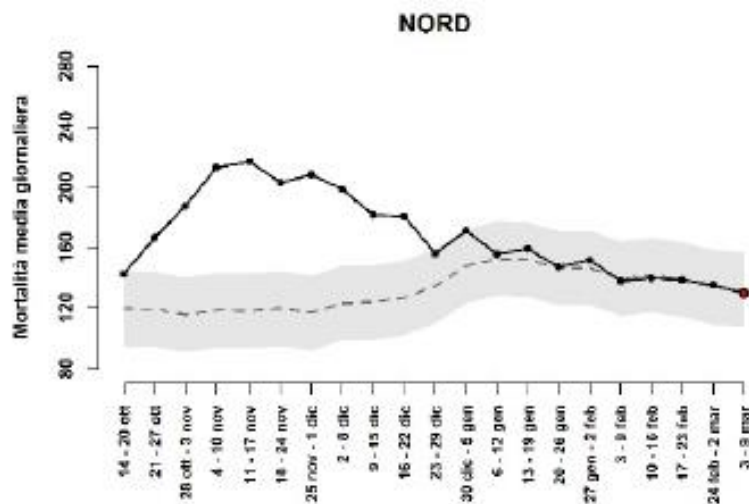
COVID-19 pandemic in Italy displayed a spatial distribution that made the tracking of its time course quite difficult. The most relevant anomaly was the marked spatial heterogeneity of COVID-19 diffusion. Lombardia region accounted for around 60% of fatal cases (while hosting 15% of Italian population). Moreover, 88% of fatalities concentrated in four Northern Italian regions. The heterogeneity



Scatterplot of multiple variables against terapia_intensiva
dati covid al 23062021 23v*486c



~
50.000
deaths



Ministero della Salute



Centro Nazionale Prevenzioni
e Controllo Malattie



DEPI/Lazio
Dipartimento di Epidemiologia
Servizio Sorveglianza Regionale
Regione Lazio



SALUTE LAZIO
SISTEMA SANITARIO REGIONALE



**SISTEMA DI SORVEGLIANZA DELLA MORTALITÀ GIORNALIERA -
RAPPORTO SETTIMANALE**

Efficacia della vaccinazione
INADEGUATEZZA della COPERTURA VACCINALE

DURATA

Effectiveness of mRNA BNT162b2 COVID-19 vaccine up to 6 months in a large integrated health system in the USA: a retrospective cohort study

Sara Y Tartof, Jeff M Slezak, Heidi Fischer, Vennis Hong, Bradley K Ackerson, Omesh N Ranasinghe, Timothy B Frankland, Oluwaseye A Ogun, Joann M Zamparo, Sharon Gray, Srinivas R Valluri, Kaije Pan, Frederick J Angulo, Luis Jodar, John M McLaughlin

Published Online

October 4, 2021

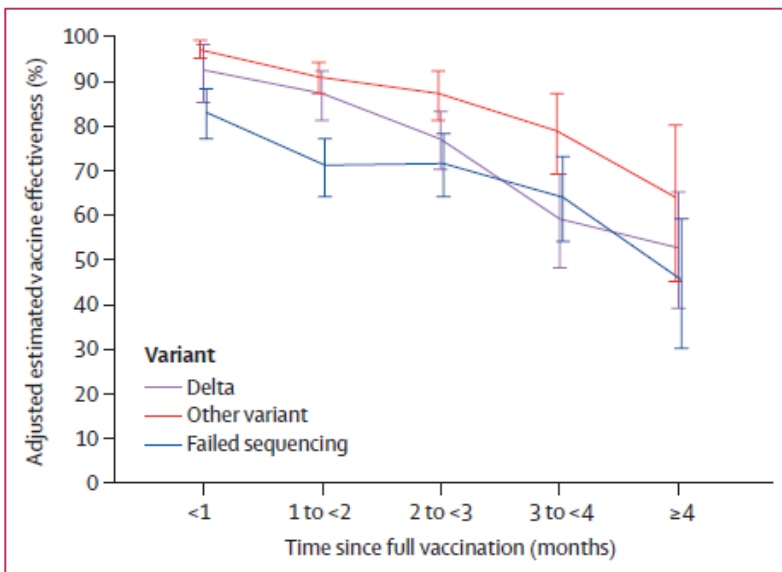


Figure 3: Adjusted estimated vaccine effectiveness against SARS-CoV-2 infection by variant

Data are shown for number of months since being fully vaccinated with BNT162b2 with 95% CIs.

- Effectiveness against infections declined from 88% (95% CI 86–89) during the first month after full vaccination to 47% (43–51) after 5 months. Among sequenced infections, vaccine effectiveness against infections of the delta variant was high during the first month after full vaccination (93% [95% CI 85–97]) **but declined to 53%** [39–65] after 4 months. Effectiveness against other (non-delta) variants the first month after full vaccination was also high at 97% (95% CI 95–99), but waned to 67% (45–80) at 4–5 months.

DURATA DELLA COPERTURA VACCINALE

Efficacia della vaccinazione
INADEGUATEZZA della COPERTURA VACCINALE

**CONTAGIOSITÀ
dei VACCINATI**

Delta variant vaccine breakthrough cases may be as transmissible as unvaccinated cases

- Breakthrough cases reported to national passive surveillance have lower Ct values by 3 cycles (**~10-fold increase in viral load**) for Delta (Ct=18, n=19) compared with Alpha (Ct=21, n=207) and other lineages (Ct=21, n=251)
- Barnstable County, MA, outbreak: **No difference in mean Ct values in vaccinated and unvaccinated** cases [median among vaccinated (n=80): 21.9; unvaccinated (n=65): 21.5]

Improving communications around vaccine breakthrough and vaccine effectiveness

Meredith McMorrow, MD, MPH
Co-lead, Vaccine Effectiveness Team
Representing EPI Task Force
July 29, 2021



I vaccinati possono infettare tanto quanto i non vaccinati – CDC report

CORRESPONDENCE

Resurgence of SARS-CoV-2 Infection in a Highly Vaccinated Health System Workforce

Virological and Serological Characterization of SARS-CoV-2 Infections Diagnosed After mRNA BNT162b2 Vaccination.

Francesca Colavita, Silvia Meschi, Cesare Ernesto Maria Gruber, Martina Rueca, Francesco Vairo, Giulia Matusali, Daniele Lapa, Emanuela Giombini, Gabriella De Carli, Martina Spaziante, Francesco Messina, Giulia Bonfiglio, Fabrizio Carletti, Eleonora Lalle, Lavinia Fabeni, Giulia Berno, Vincenzo Puro, Antonino Di Caro, Barbara Bartolini*, Giuseppe Ippolito, Maria Rosaria Capobianchi, Concetta Castilletti, on behalf of INMI Covid-19 laboratory surveillance team

COVID vaccine immunity is waning – how much does that matter?

As debates about booster shots heat up, knowledge about the duration of vaccine-based immunity is still evolving.

Six months ago, Miles Davenport and his



606 | Nature | Vol 597 | 30 September 2021

BRIEF REPORT

Vaccine Breakthrough Infections with SARS-CoV-2 Variants

JEFF J. MITCHELL



Researchers are increasingly concerned about 'breakthrough' infections driven by Delta.

HOW DO VACCINATED PEOPLE SPREAD DELTA? WHAT THE SCIENCE SAYS

Delta spreads more readily than other coronavirus variants among vaccinated people, data suggest.

By Nidhi Subbaraman

O'Connor, a virologist at the University of Wisconsin–Madison.

Check for updates

London
Cite this as: *N Engl J Med* 2021;374:n2074
<http://dx.doi.org/10.1136/bmj.n2074>
Published: 19 August 2021

Covid-19: Fully vaccinated people can carry as much delta virus as unvaccinated people, data indicate

Shaun Griffin

Adults who have been fully vaccinated against covid-19 had more protection from vaccination than

**LA CURVA EPIDEMICA NON è CORRELATA
CON LO STATO DI VACCINAZIONE della
POPOLAZIONE**



Increases in COVID-19 are unrelated to levels of vaccination across 68 countries and 2947 counties in the United States

S. V. Subramanian^{1,2} · Akhil Kumar³

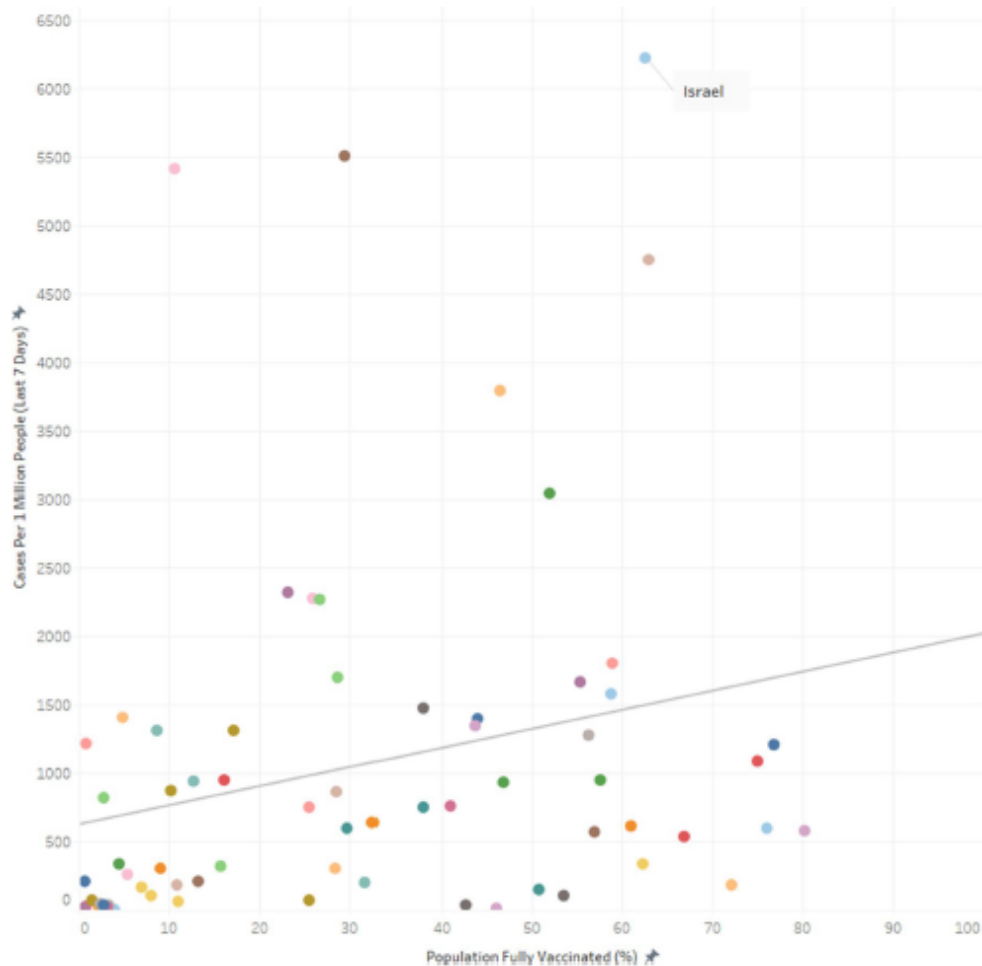


Fig. 1 Relationship between cases per 1 million people (last 7 days) and percentage of population fully vaccinated across 68 countries as of September 3, 2021 (See Table S1 for the underlying data)

- The sole reliance on vaccination as a primary strategy to mitigate COVID-19 and its adverse consequences needs to be re-examined, especially considering the Delta (B.1.617.2) variant and the likelihood of future variants.
- Other pharmacological and non-pharmacological interventions may need to be put in place alongside increasing vaccination rates.
- Such course correction, especially with regards to the policy narrative, becomes paramount with emerging scientific evidence on real world effectiveness of the vaccines

Title page

Comparing SARS-CoV-2 natural immunity to vaccine-induced immunity: reinfections versus breakthrough infections

Sivan Gazit, MD MA^{1,2*}; Roei Shlezinger, BA¹; Galit Perez, MN MA²; Roni Lotan, PhD²; Asaf Peretz, MD^{1,3}; Amir Ben-Tov, MD^{1,4}; Dani Cohen, PhD⁴; Khitam Muhsen, PhD⁴; Gabriel Chodick, PhD MHA^{2,4}; Tal Patalon, MD^{1,2}

Conclusions:

This study demonstrated that natural immunity confers longer lasting and stronger protection against infection, symptomatic disease and hospitalization caused by the Delta variant of SARS-CoV-2, compared to the BNT162b2 two-dose vaccine-induced immunity. Individuals who were both previously infected with SARS-CoV-2 and given a single dose of the vaccine gained additional protection against the Delta variant.

Perché allora solo 6 mesi per i guariti dal Covid?

**IL GREEN PASS NON SEMBRA
GARANTIRE CHE IL POSSESSORE
NON POSSA INFETTARE**

**Solo il principe vive di certezze
(N. Macchiavelli)**

