Newsletter PTI Salud Global/Global Health Cov19

Principales novedades internacionales sobre IMPACTO

GRUPO TEMÁTICO DE TRABAJO 5
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HOT TOPICS DE LA SEMANA
• Impactos en África
• Métricas pandemia
• Orden social
• Respuesta académica
• Relación edad-mortalidad
• Gobernanza datos
• Transmisión asintomática
• Recesión económica
### Consecuencias de la COVID-19 en un continente castigado

La pirámide demográfica en países africanos es muy diferente a la nuestra, con una población mucho menos envejecida. Esto nos llevaría a pensar en una mortalidad inferior por COVID-19, pero la proporción de individuos que tienen el sistema inmune comprometido es muy superior.

El Director General de la OMS, Tedros Adhanom, resaltaba cómo esta pandemia muestra lo vulnerables que son las personas afectadas de enfermedad pulmonar o con un sistema inmune debilitado.

Esto no hace presagiar nada bueno para una región donde las infecciones del tracto respiratorio inferior y el sida son las principales causas de morbilidad y mortalidad. África es la región con mayor carga de sida, casi dos terceras partes de las nuevas infecciones por VIH ocurren en este continente. También encabeza el ranking para otras epidemias como malaria, tuberculosis y neumonía infantil, y sufre la mayor parte de la carga global de enfermedades tropicales desatendidas. Sin olvidar que el continente africano se lleva también la peor parte en cuanto a desnutrición e inseguridad alimentaria.

Además del impacto directo en las personas, hay también una gran preocupación sobre el efecto de la COVID-19 en los programas de salud y en el acceso a los cuidados médicos. Un ejemplo es la anterior epidemia de ébola y las consecuencias negativas que tuvo en las campañas de vacunación infantil (sarampión y pentavalente) en Sierra Leona.

El impacto de COVID-19 sobre la tuberculosis es especialmente preocupante, ya que en el continente se da una elevada prevalencia de VIH y en esta condición la coinfección con tuberculosis es la principal causa de mortalidad. Es por ello que, recientemente, la OMS ha alentado a los países a mantener la continuidad de los programas de tuberculosis y proporcionado guías para minimizar los efectos negativos de la pandemia de COVID-19.

La OMS envía directrices similares en el caso de la malaria, otra de “las tres grandes”, y que concentra en África el 90 % de los casos y las muertes (sobre todo en niños menores de cinco años). Si no se mantienen los esfuerzos para el control de esta enfermedad (fumigación con insecticidas, distribución de mosquiteras, diagnóstico y tratamiento temprano), se observará un repunte de la malaria después de los esfuerzos colosales realizados en los últimos años. Un mal momento, cuando el programa de implementación de la vacuna contra la malaria ya tiene lugar en tres países africanos.

**Autora:** Elena Gómez-Díaz (IPBLN-CSIC)

Extracto del artículo “Por qué preocupa tanto la pandemia de COVID-19 en África” publicado en The Conversation

- Casos confirmados = 432,421
- Casos activos = 214,627
- Recuperaciones = 207,148
- Fallecimientos = 10,646

Source: https://coronavirus.jhu.edu/map.html
A GUIDE TO R – THE PANDEMIC’S MISUNDERSTOOD METRIC. WHAT THE REPRODUCTION NUMBER CAN AND CAN’T TELL US ABOUT MANAGING COVID-19

First used almost a century ago in demography, R originally measured the reproduction of people — whether a population was growing or not. In epidemiology, the same principle applies, but it measures the spread of infection in a population. If R is two, two infected people will, on average, infect four others, who will infect eight others, and so on. The measure allows modellers to work out the extent of the spread, but not the speed at which the infection grows. Unless they regularly test an entire country’s population, epidemiologists can’t measure R directly. So it is usually estimated retrospectively: disease modellers look at current and previous numbers of cases and deaths, make some assumptions to find infection numbers that could have explained the trend and then derive R from these. In this pandemic, R has leapt from the pages of academic journals into regular discussions by politicians and newspapers, framed as a number that will shape everyone’s lives. As Germany’s chancellor, Angela Merkel, explained in a widely viewed video this April, an R above one means an outbreak is growing, and below one means that it is shrinking. In many countries, it is publicly reported every week. In June, epidemiologists at the Harvard T.H. Chan School of Public Health in Boston, Massachusetts, announced a website where anyone can look up the value for any country — and for many smaller regions — in the world. But fascination might have turned into unhealthy political and media fixation, say disease experts. R is an imprecise estimate that rests on assumptions, says Jeremy Rossman, a virologist at the University of Kent, UK. It doesn’t capture the current status of an epidemic and can spike up and down when case numbers are low. It is also an average for a population and therefore can hide local variation. Too much attention to it could obscure the importance of other measures, such as trends in numbers of new infections, deaths and hospital admissions, and cohort surveys to see how many people in a population currently have the disease, or have already had it.

Autor: David Adam

ON ORDER AND DISORDER DURING THE COVID-19 PANDEMIC

This paper analyses the conditions under which the COVID-19 pandemic will lead either to social order (adherence to measures put in place by authorities to control the pandemic) or to social disorder (resistance to such measures and the emergence of open conflict). Using examples from different countries (principally the United Kingdom, the United States, and France), the authors first isolate three factors which determine whether people accept or reject control measures. These are the historical context of state-public relations, the nature of leadership during the pandemic and procedural justice in the development and operation of these measures. Second, they then analyse the way the crisis is policed and how forms of policing determine whether dissent will escalate into open conflict. The paper concludes by considering the prospects for order/disorder as the pandemic unfolds.

Autores: Stephen Reicher y Clifford Scott
COMPARING SARS-COV-2 WITH SARS-COV AND INFLUENZA PANDEMICS

The objective of this Personal View is to compare transmissibility, hospitalisation, and mortality rates for severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) with those of other epidemic coronaviruses, such as severe acute respiratory syndrome (SARS-CoV) and Middle East respiratory syndrome coronavirus (MERS-CoV), and pandemic influenza viruses. The basic reproductive rate (R0) for SARS-CoV-2 is estimated to be 2.5 (range 1.8–3.6) compared with 2.0–3.0 for SARS-CoV and the 1918 influenza pandemic, 0.9 for MERS-CoV, and 1.5 for the 2009 influenza pandemic. SARS-CoV-2 causes mild or asymptomatic disease in most cases; however, severe to critical illness occurs in a small proportion of infected individuals, with the highest rate seen in people older than 70 years. The measured case fatality rate varies between countries, probably because of differences in testing strategies. Population-based mortality estimates vary widely across Europe, ranging from zero to high. Differences are most likely due to varying demographic structures, among other factors. However, this new virus has a focal dissemination; therefore, some areas have a higher disease burden and are affected more than others for reasons that are still not understood. Nevertheless, early introduction of strict physical distancing and hygiene measures have proven effective in sharply reducing R0 and associated mortality and could in part explain the geographical differences.

Autores: Petersen, Eskild et al.

AGE-MORTALITY CURVES ARE FLATTER IN DEVELOPING COUNTRIES

A greater share of reported COVID19 deaths occur at younger ages in low- and middle-income countries (LMICs) compared to high-income countries (HICs). Based on data from 26 countries, people age 70 and older constitute 37% of deaths attributed to COVID19 in LMICs on average, versus 87% in HICs. Only part of this difference is accounted for by differences in population age structure. In this paper, COVID19 mortality rates are calculated for each age group by dividing the number of COVID19 deaths by the underlying population. The resulting age-mortality curves are flatter in countries with lower incomes. In HICs, the COVID19 mortality rate for those ages 70–79 is 12.6 times the rate for those ages 50–59. In LMICs, that ratio is just 3.5. With each year of age, the age-specific mortality rate increases by an average of 12.6 percent in HICs versus 7.1% in LMICs. This pattern holds overall and separately for men’s and women’s mortality rates. It reflects some combination of variation across countries in age patterns of infection rates, fatality rates among those infected, and under-attribution of deaths to COVID-19. The findings highlight that experiences with COVID-19 in wealthy countries may not be generalizable to developing countries.

Autor: Gabriel Demombynes

Hot topics: Métricas; Orden social; Respuesta académica; Comparaciones

GLOBAL ACADEMIC RESPONSE TO COVID19: CROSS-SECTIONAL STUDY

A cross-sectional bibliometric review of COVID19 literature between 1/11/2019 and 24/03/2020, along with a comparative review of MERS literature. Investigator’s responsiveness was assessed by measuring the volume and type of research published. Editorial’s was assessed by measuring the submission to acceptance time and availability of original data. Publisher’s was assessed by measuring the acceptance to publication time and the provision of open access. 398 of 2,835 COVID19 and 55 of 1,513 MERS results were eligible. Most COVID19 studies were clinical reports (60.8%). The submission to acceptance [median: 5 days versus 71.5 days (38–106)] and acceptance to publication [median: 5 days versus 22.5 days] times were strikingly shorter for COVID19. Almost all COVID19 (99.5%) and MERS (100%) studies were open access. Data sharing was infrequent, with original data available for 104 (26.1%) COVID19 and 10 (18.2%) MERS studies. The early academic response was characterized by an aim to define the disease. Studies were made rapidly and open. Only 1/4 were published alongside original data.

Autores: Helliwell, J.A. et al.

COVID-19: INSIGHTS FROM INNOVATION ECONOMISTS

The current pandemic is not a Black Swan event, since there was enough knowledge available prior to COVID-19 to be better prepared. So how come society did not invest more in relevant research and innovation (ex: broad-spectrum antiviral drug or cost-effective, quick-to-produce ventilators)? What some may see as a failure of the Science, Technology, and Innovation ecosystem can be well explained by economic concepts. There are well-known reasons for why we do not invest enough in research—and solutions exist. Yet, despite obvious failures of the STI ecosystem, there is also a bright side. We clearly did not have the full picture, and we did not act as aggressively as we should have, but we have had pockets of knowledge that are proving to be useful during. And we can rely on a strong base in STI to move forward fast. Many creative initiatives are emerging from research organizations, universities, private companies, and individuals. The document highlights some of them and puts them in perspective.

Autor: George Abi Younes et al.
Three broad strategies for fighting the coronavirus and restarting the economy have emerged, but it’s clear we need a coordinated global effort that includes sharing of data and best practices. A small subset of governments, like South Korea and New Zealand, moved quickly to crush and contain the spread of COVID-19. Most countries were unable to contain the initial outbreak and moved to flatten and fight. It’s too early to draw conclusions about Sweden’s sustain and support model.

When COVID-19 deaths are analysed by age, America is an outlier

American casualties tend to be younger than European ones, which has grim implications. It is now well-known that, although covid-19 can strike even the very young, older folk face the greatest risk. In hard-hit rich countries, about 60% of all deaths from the disease are among people aged 80 and over. America, however, is an exception. Data released on June 16th by the Centers for Disease Control (CDC) show that the country’s death toll skews significantly younger. There, people in their 80s account for less than half of all covid-19 deaths; people in their 40s, 50s and 60s, meanwhile, account for a significantly larger share of those who die. The median covid-19 sufferer in America is a 48-year-old; in Italy it is a 63-year-old.

Forecasts of total deaths updated July 2, 2020

This week CDC received 24 individual national forecasts. This week’s national ensemble forecast suggests that there will likely be between 140,000 and 160,000 total reported COVID-19 deaths by July 25th. The state-level ensemble forecasts suggest that the number of new deaths over the next four weeks in Arizona, Arkansas, Florida, Idaho, Nevada, Oklahoma, Oregon, South Carolina, Texas, Utah, and Wyoming will likely exceed the number reported over the last four weeks. For other states, the number of new deaths is expected to be similar to the number seen in the previous four weeks or to decrease slightly.
GETTING DATA RIGHT: GOVERNANCE FOR PEOPLE AND SOCIETY.

Public scrutiny is critical for trust in, and democratic legitimacy for, the use of data-driven decision-making and algorithmic systems in our society. The Royal Society’s new publication, The UK data governance landscape, is a valuable resource published at a moment of immense uncertainty, as well as possibility, in the data governance ecosystem. Midway through 2020 we stand at the intersection of three monumental and ongoing ruptures: the coronavirus pandemic, which is accelerating the application of data-driven technologies to health as well as policymaking; the Black Lives Matter movement, which is drawing long-overdue attention to the unequal distribution of the benefits of digital transformation as well the problem of bias in algorithmic systems; and the impending departure of the United Kingdom from the European Union, which is generating questions about the future of international data flows and the opportunities the UK faces to expand its leadership in artificial intelligence (AI). These three phenomena are already changing, and will transform, the data governance landscape. There is a pressing need to ensure the changes wrought benefit people and society. The Royal Society and British Academy’s 2017 report Data management and use: Governance in the 21st century called for a new interdisciplinary stewardship body that would be deeply connected to diverse communities, nationally focused and globally relevant. The Ada Lovelace Institute was created in response to this call. The evidence we are gathering for policy-making and regulatory reform includes scrutiny of social and technical infrastructures and systems, and – crucially – the perspectives of the those who will be most impacted: the public. This scrutiny will be critical for public trust and confidence in, and democratic legitimacy for, more widespread use of data-driven decision-making and algorithmic systems in our society.

LA TRANSMISIÓN ASINTOMÁTICA TAMBIÉN FUE DECISIVA EN LAS RESIDENCIAS

Un estudio del hospital Vall d’Hebron muestra que, en el pico de la pandemia, el 70% de los residentes y el 56% de los trabajadores infectados por SARS-CoV-2 en las residencias eran asintomáticos.

THE PANDEMIC’S BIG MYSTERY: HOW DEADLY IS THE CORONAVIRUS?

Even with more than 500,000 dead worldwide, scientists are struggling to learn how often the virus kills. Here’s why.

THE 3 WEEKS THAT CHANGED EVERYTHING THE ATLANTIC

Imagine if the National Transportation Safety Board investigated America’s response to the coronavirus pandemic.
ÉPIDÉMIE DE COVID-19 : QUEL IMPACT SUR L’ESPÉRANCE DE VIE EN FRANCE ?

Nos résultats indiquent que la baisse de l’espérance de vie en France en 2020 devrait être relativement modeste. Pour les hommes, il s’agirait d’une baisse de 0,2 an, soit une espérance de vie de 79,5 ans en 2020 contre 79,7 ans en 2019. En ce qui concerne les femmes, l’espérance de vie devrait baisser de 0,1 an, soit 85,5 ans en 2020 contre 85,6 ans en 2019. Quant à l’espérance de vie à 65 ans, avec 0,3 an de baisse pour les hommes et 0,2 an pour les femmes, les pertes devraient être un peu plus marquées, mais finalement assez similaires à celles de l’espérance de vie à la naissance. La perte plus importante d’espérance de vie chez les hommes reflète leur plus grande vulnérabilité face à cette maladie.

COVID-19 RECESSION IS EXPECTED TO BE TWICE AS BAD AS THE 2009 FINANCIAL CRISIS

The COVID-19 pandemic is currently forecast to cause the worst global recession since World War II. Economic output is expected to significantly reduce in almost every country. Global unemployment is expected to rise to its highest level since 1965. Retail spending and oil demand has also dropped to unprecedented levels.

HOW SUPERSPREADING IS FUELING THE PANDEMIC — AND HOW WE CAN STOP IT

We now know that, on average, people with the coronavirus infect about two other people and most actually pass the virus to just one other person, or to no one else at all. But some go on to infect many, many more, often before they even get symptoms. Many of these transmission chains begin with “superspreading” events, where one person passes the virus to dozens of others. Early contact tracing studies suggest these events have been a large driver of transmission around the world. By some estimates, 10 % of people have been causing 80 percent of new infections. This is one of the reasons experts are worried about large indoor events — more so than outdoor ones — causing large spikes in case numbers.
WEIRD BUT TRUE: LOCKDOWN HAS MADE MANY FAMILIES HAPPIER

Almost a third of mothers tell a survey that despite home schooling and financial worries they feel closer to their families.

RISKS, R NUMBERS AND RAW DATA: HOW TO INTERPRET CORONAVIRUS STATISTICS

Covid-related facts and definitions are confusing, and as lockdown is eased, clarity is more important than ever.

OTRAS NOTICIAS

- COVID-19’s deadliness for men is revealing why researchers should have been studying immune system sex differences years ago
- Covid-19 is here to stay. People will have to adapt. The world is not experiencing a second wave: it never got over the first.
- Coronavirus: Japan’s mysteriously low virus death rate

COVID-19: WHAT ARE THE BIGGEST RISKS TO SOCIETY IN THE NEXT 18 MONTHS?

These are the biggest risks for society, following on from COVID-19, for the next 18 months. These include the economic, societal and geopolitical issues we could face. The most likely risk to society is the economic damage caused by the virus, as millions are forced out of work or forced to stay at home.
PÁGINAS WEB DE INTERÉS

1.- INE: Información estadística para el análisis del impacto de la crisis COVID-19
2.- WHO: Coronavirus Disease (COVID-19) Dashboard
3.- European Centre for Disease Prevention and Control: COVID-19 information
4.- Center for Disease Control and Prevention. Coronavirus (COVID-19)
5.- COVID19 Centro Nacional de Epidemiología incluyendo el panel MOMO
6.- Johns Hopkins University: Coronavirus Resource Center
7.- Worldometers: Web con sección especial de COVID19
8.- IUSSP: Contributions to the understanding of the COVID-19 pandemic
9.- CEPAL: Covid Respuesta
10.- PanAmerican Health Organization: Coronavirus Disease (COVID-19)
11.- The Human Mortality Database, Max Planck Institute
12.- INED: Crise sanitaire et confinement: l’apport de la démographie et des sciences de la population
13.- Demography & COVID-19, Population Europe Network
14.- OpenSAFELY
15.- Longitudinal Covid-19 studies on mental health
16.- Epidemias y salud global Reflexiones desde la Historia
17.- Biblioteca Virtual del CSIC Recursos sobre COVID19
18.- British Library online
19.- L’Observatoire_19: evaluar los efectos de la pandemia sobre el Periodismo.
20.- OCDE Country Policy Tracker
21.- University of Oxford: CORONAVIRUS GOVERNMENT RESPONSE TRACKER
22.- Acción Matemática contra el Coronavirus
23.- Evolutionary Biology and Questions Regarding the Coronavirus!
24.- LTC COVID Response. International Long-Term Care Policy Network:
25.- 2019 Novel Coronavirus Research Compendium, NCRC
26.- The Economist’s tracker for covid-19 excess deaths
27.- ELIXIR, the European research infrastructure for life science data
28.- Estimating the effective reproductive number (Re) in Europe
29.- Glosario de COVID-19 EN ES
30.- Sex, gender and COVID-19: overview and resources.
31.- COVID-19 Projections Using Machine Learning
32.- Austrian Corona Panel Project
33.- Medidas políticas clave de la OCDE
34. SMaRteN and Vitae aim to develop a national picture for how doctoral researchers and research staff have been affected by the pandemic. Covid-19 and the associated lock down has caused substantive disruption to the study and work of doctoral students and researchers in universities. The response to the pandemic has varied across universities and research funders. SMaRteN and Vitae aim to develop a national picture for how doctoral researchers and research staff have been affected by the pandemic. The survey includes questions relating to the impact of COVID-19 on research work, mental wellbeing, social connection.
1. **EIT-Health and EIT Food**: EIT Health was established in 2015, as a ‘knowledge and innovation community’ (KIC) of the European Institute of Innovation and Technology (EIT). The EIT is made up of various KICs who each focus on a different sector, or area, of innovation – in our case, that is health and aging. The idea behind the EIT KICs is that innovation flourishes best when the right people are brought together to share expertise. The so called ‘knowledge triangle’, is the principle that when experts from business, research and education work together as one, an optimal environment for innovation is created. EIT Health is seeking to build a strong and impactful portfolio of activities to run in 2021 and beyond. With this call for proposals, we specify what activities we are expecting and explain the details on how to participate. As part of the EIT EIT Crisis Response Initiative’, EIT Food is also responding to the COVID-19 pandemic crisis by funding short term, impactful projects that address Food System business and consumer needs.

2. **Science|Business Database: Coronavirus Funding Opportunities**: As a service to the global R&D community, Science|Business has compiled this database of funding opportunities. Users are encouraged to let us know of funding calls that could be incorporated into the database. As a service to the global R&D community, Science|Business has compiled this database of funding opportunities. Users are encouraged to let us know of funding calls that can be incorporated into the database.

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**Recuerda que puedes encontrar información de TODAS las convocatorias abiertas en la wiki de la PTI Salud Global**

**VIRTUAL EVENTS OR WORKSHOPS**

1. **Call for nominations: IPBES workshop on biodiversity and pandemics** from 27-31 July 2020.

2. **Innovaciones en la comunicación científica en español. Cambios urgentes para el debate**. Organizado por la Fundación Lilly

Este ya no tan nuevo coronavirus ha traído consigo cambios en la comunicación científica y su lenguaje. En pocas semanas se publicaron cerca de 30,000 artículos científicos a nivel mundial. Detrás de ello, marcado por la inmediatez, la utilidad, la relevancia y, a veces también, por la controversia, las estructuras editoriales han tenido que innovar en sus procesos de publicación, gestión y difusión, sirviéndose, entre otras tecnologías, de técnicas de inteligencia artificial. Partiendo de la base de que el lenguaje constituye una herramienta fundamental para acercar la ciencia a la ciudadanía, parece necesario reflexionar sobre la visibilidad que han tenido los contenidos académicos en español y dar respuesta a cuestiones como qué puede hacer la tecnología para que la ciencia esté presente en la sociedad o el impacto que tiene todo ello en el idioma.—Jornada Anual MEDES – MEDicina en Español: formato virtual el 7 de julio a las 18 horas

3. **Pandemic 1918—Episode 2 of 3 Episode 2 - How the UK and the world reacted**—BBC Radio 4

Leading virologist Professor John Oxford charts the story of the 1918-19 flu pandemic which killed more than 220,000 people in the UK and over 50 million people worldwide.

4. **Charts that Count: how coronavirus fears will impact the economy long term** July 2 2020 Produced by Gregory Bobillot.

The FT’s Brooke Fox looks at recent research showing how the coronavirus crisis could affect behaviour such as risk-taking in the long-term, and how that will dampen US economic growth.
NUESTRA WIKI

Para información actualizada de la actividad de las temáticas puedes consultar la wiki de la PTI Salud Global.

OTRA INFORMACIÓN QUE DEBES CONOCER

Consulta la web pública de la PTI Salud Global para conocer más noticias y novedades de la actividad de nuestros investigadores en la lucha contra la pandemia provocada por la COVID-19.

Y si tienes cualquier consulta, puedes hacernosla llegar a través del email: pti@csic.es

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