

**POST COVID-19 PARADIGM SHIFT IN SOCIAL SCIENCE, TECHNOLOGY AND
PUBLIC HEALTH**

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ABSTRACT:

The WHO announced the novel coronavirus disease 2019 (COVID-19) an ‘emergency of international trouble’ on 30th January 2020 and a pandemic on 11th March. According to WHO’s statement Report - 79, as of 8th April 2020, the epidemic has give rise to 79235 deaths all over the world. Although it is surely nearing its end in China, where it was first noted, it is still on the stand up in Europe, in the USA and in other parts of the world, as well as in many low-income and middle-income countries (LMICs). The pandemic has triggered unprecedented measures worldwide. Many countries have put travel bans, restrict and lockdown scheme. These reactions have been accepted in an ‘emergency’ way, and are largely reactionary, intended at diminishes the expansion of the disease while waiting for a specific prevention and/or vaccine to be developed. Here we don’t want to put down the risks produced by the pandemic, nor to question the measures taken by the WHO and governments. But we would like to convey our problems regarding four COVID-19-related issues, and support for a ‘paradigm shift’— that is, a revolution in scientific technology, basic concepts, changes in the human health and experimental practices on technology—to prepare for future crises.

Keywords: Coronavirus, transmission, health, prevention, vaccine.

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A shift in focus: Covid-19 in the broader global health picture-

It is prime to think of additional accept and preventable health determine, when compared with the focus that COVID-19 has activate at global and national levels. Respiratory diseases have breathe leading causes of demise and condition in the world before COVID-19. It is evaluate that, generally, four million people die ahead of time from chronic respiratory disease each year; 210 000 deaths per year was related with correctable injury in hospitals.⁷

Whereas transmissible infection seem to stimulate the most fright between the general and departmental, non- communicable illness are accountable for nearly 70% of all loss of life. Sadness influence 300 million people generally and is the leading cause of disability international, and nearly 800 000 people die from suicide every year.⁹ The universal boom in untimely mortality and morbidity from non-communicable diseases has now reached a point where some have even suggested it to be a pandemic.¹⁰ Moreover, climate change (through enlarge heat waves and disasters) and meteorological and environmental contamination are anticipate to increase deaths and injuries, especially in LMICs.¹¹ In some debates, climate change has become more than a risk factor, with expand calls for the WHO to announce it a public health accident.

From a general fitness position, COVID-19 needs to be appraised as part of a much bigger health picture. For instance, beyond the accident and direct impermanence rates of COVID-19, awareness should be paid to the interaction with other pathogens, as well as to the more indirect effects of its reduction measures.¹³ Indeed, the pandemic and its containment measures interact with, and impact on, other health order and will have system-wide effects, spotlight the significance of adopting a ‘systems approach’ to its purpose.

A paradigm shift in global health governance-

The universal health company, national safety organization and all governments have known that a prevalent like COVID-19 was likely to come, yet global health policy has endure woefully unprepared nor fit-for-purpose. In 2015, the G7 members signify that Ebola had been a ‘wake-up call’ for the need for better general cooperation. It was also recognized that antimicrobial resistance (AMR) threatened to kill 300 million people by 2050, thus difficult urgent action. Yet little has been done to inscription these existing universal health governance short advancing.

For example, the lauded G7 and G20 response, the international Health reliability Agenda (<https://ghsagenda.Org/>), continues to speak in the terms of expensive ‘counter- measures’ versus blockage and fitness system strengthening. Moreover, the Pandemic extremity Financing Facility (PEF) (<https://www.worldbank.org/en/topic/pandemics/brief/prevalent-emergency-financing-potential>), meant to deliver up to \$500 million in epidemic assistance to curb extension into a pandemic, sits idle as a complicated ‘loan mechanism’ at the World Bank, accessible to only a few

countries (e.g., China and India do not certified for the money). There is also significant ambiguity about how the PEF divide and/or supplement the WHO's Contingency Fund for accident (CFE) (<https://www.who.int/emergencies/sponsor/contingency-fund-for-emergencies>). The CFE is available to more countries for more possibility, and more rapidly.

In terms of bacterium observe and reaction, the 2005 International Health Regulations, which are meant 'to help the international section and authority prevent and answer to acute public health risks that have the future to cross borders and threaten people worldwide',¹⁸ are not fully execute by many countries due to limited economic wealth and political will, and have been violated in reaction to the COVID-19 outbreak.¹⁹ What is more surprise is that many high-income countries like France have failed to fully implement the International Health management, particularly in their overseas dependency In addition, other disease control mechanisms, like the WHO Global Influenza observation and feedback System (<https://www.who.int/influenza/laboratory/en/>), remain invade reproduce and underfunded, with too few WHO laboratories and a market-based model where a global public good (pooled influenza understanding) is turned into a private good (pharmaceutical profit), with historical partiality in terms of public health.²⁰ Moreover, many countries, like China, are impulse not to raise the infestation alarm too soon due to fears of diminished direct foreign backing (like with severe acute respiratory syndrome, H7N9 and now COVID-19) and fears that the government will be recognize as weakly.

These order of disability at the international level are aggravate by a incapacitate WHO, whose budget has been radically reduced and ring-fenced. For example, the WHO used to receive areas of its financing from assessed donation levied on organ. However, a change to a zero real growth policy for its regular accounts in the 1980s has meant it now only receives a quarter of its budget from member donation. As a result, the WHO is dependent on extra-budgetary ring-fenced 'pet project' sponsor from contributor to fill an progressively shrinking budget.²² As the money flows to other multi-lateral health capability, the WHO's command dissipates, with countless organizations like the Institute for Health Metrics and Evaluation, the Bill and Melinda Gates Foundation and Medicines Sans Frontiers able to order greater epistemic authority,²³ financial influence²⁴ and response effectiveness.²⁵ However, this growth of initiatives creates a surroundings of policy fragmentation, which significantly enervate coordinated global public fitness.

One real outcome of dissolution of global health governance is an incompetent division of labor, where hundreds of performer such as the WHO, Global Fund, President's extremity Plan For AIDS Relief, United Nations Programs on HIV and AIDS, commission For International Development, World Bank, the Gates Foundation and the Clinton Foundation(to name only a many) produce resembling programmers or perpendicular health silos that have neither generated overall system strengthening in high burden countries nor allowed for effective global health policy.^{27 28} This creates two failures. First, contrary to sector-wide approaches, ²⁹ perpendicular ' precious- design 'global enterprise frequently fail to promote sustainable long- term original health system strengthening, which is the stylish preventative defense for complaint control(of all types, not just contagious conditions). Second, the global position is sorrowfully unrehearsed for pandemics, since global policy has remained archconservative, symptom- grounded and dependent on vaccine discoveries without full appreciation of other upstream determinants of complaint and access to those vaccines.

Given the state of global health governance and inadequate investments in health system strengthening — as well as the failure, by numerous actors, to borrow a 'systems approach' to

problem resolution¹⁴ — the spread and peril of COVID- 19 isn't surprising. What's needed, we argue, is to shift global health policymaking from a specific reactional paradigm to a systemic, holistic and preventative paradigm. There's no mistrustfulness that this approach will bear serious coffers, governance reform and political will. Nonetheless, the global profitable costs of COVID- 19 have formerly reached into at least a trillion bones .³⁰ therefore, serious sweats to ameliorate global and original health systems would be a small bit of this cost, with a tried and true cost-saving gospel that ' an ounce of forestallment is worth a pound of cure.

Beyond the Pasteurian paradigm: A holistic view of health-

The emergency responses to COVID- 19 so far are grounded on the so- called 'Pasteurian paradigm ', which states that each complaint is due to one pathogen; therefore, for each complaint there's one cure, targeting the responsible pathogen. In this case, laboratories are contending to find the cure or the vaccine against COVID- 19 — a vaccine which will come too late for the current epidemic, and will have limited efficacy if the contagion mutates in the coming months or times. Yet it's easy to see how the further pathogens there might be in the future (which there will be) the less this paradigm makes sense. Also, the Pasteurian paradigm has assessed its favored exploration system — videlicet, randomized control trials that try to insulate one variable from all possible variables — as the gold standard of wisdom, relegating other approaches as near charlatanism.

Still, there's a multitude of substantiation indicating that beyond a single pathogen, the development of a complaint, as well as its outgrowth, is vastly affected by the physical and social parameters in which it operates, and that this is vastly affected by social, political, environmental and individual factors. This seems widely known by the public as far as chronic non-communicable Conditions are concerned, but is also the case for contagious conditions, especially for arising infections, in which the pathogenic part of social inequalities is recognised.³³ also, the traditional borders between communicable and non-communicable conditions are being blurred by substantiation of ' biosocial contagion '.³⁴ In this light, the globalized world is now facing a ' syndemic' — that is, a community of pandemics that ' co-occur in time and place, interact with each other to produce complex sequelae, and share common underpinning societal motorists '.³⁵ COVID- 19 is no exception, since its mortality rate varies significantly according to age, coitus and comorbidities.³⁶

As a volition, we argue that it would be more effective, effective and indifferent to borrow a holistic approach to health. How to attack the silent killers and how to prepare populations — including the most vulnerable³⁷ — against unborn pandemics should be on the top of public and global health policy and exploration dockets. This should reflect both a security approach (fighting characteristic issues) and a health development approach (diving upstream causes and determinants). In doing so, the objects shouldn't be simply be the response mode, but a more combined trouble to limit environ- internal factors, cover biodiversity, ³⁸ reduce social health injuries, strengthen original health systems for preventative health, help populations reduce their individual threat factors and compound their natural impunity — specially through colorful ' healthy behaviors ' and diets that are proven to strengthen the general vulnerable system.³⁹ – 46 Like what lately took place in the field of evaluation of complex systems and programs, ⁴⁷ a ' realist ' revolution of medical exploration is presumably demanded to help support this.

From global solution to local adaptations-

It's eventually important that the performing programs aren't copy-pasted from other countries, but acclimated to each environment, and backed by strong original health systems. By description, preventative health programs must be acclimated to original particularity, including original surroundings, and health systems must be strengthened at the original position so as to be suitable to respond to a population's requirements and prospects. This is also the case for the response to COVID-19. Contagions and pandemics have always been, and will always be, and should be anticipated.^{48 49} Coronaviruses are a well-known family of contagions, and indeed if this one is particularly aggressive, its genome has been fleetingly linked. The difference with this epidemic which is causing the semi-collapse of health systems is that it has revealed a profound lack of public foresight and preparedness. In response to the epidemic, the most hit countries so far have faced a lack of outfit and critical care beds. In the UK and France, as just two examples, decades of austerity programs and a preoccupation with assessing health installations grounded on specialized effectiveness (i.e., minimizing inputs and adding labor) have vastly dropped the capacity of health systems to respond to over-average frequentation.⁵⁰

The COVID-19 emergency responses of numerous countries have revealed important inconsistencies. In numerous European countries, the authorities have espoused a one-size-fits-all policy and assessed the same measures far and wide. Further worryingly, some governments --especially in Africa haven't performed their own acclimated threat assessment before dupe-pasting strategies from abroad.⁵¹ This is problematic, since it makes little sense to use a prophetic model developed from a country where the median age is 47 and restate it to a country with a median age of 18, without conforming the parameters. In addition, current programs fail to regard for indigenous or transborder contextual parameters, where either more strict or relaxed measures could be more suitable depending on geographical determinants. The universal lockdown of a whole country may not be necessary when there are only one or two epidemic outbreaks separated by hundreds of long hauls, especially if constraint is quick and determined. What we suggest, in order to be effective, is that programs should fit each environment and be adaptive at the territorial or ecosystem position, versus being unreflectively and slightly bounded by public authorities. This is the stylish way to not put measures that are too coercive, which may face legal constraints and may be counterproductive, eroding public trust and cooperation.^{52 53}

In the post-COVID-19 recovery phase, we hope the assignments learnt from original, public and global responses to this epidemic will foster support, by policymakers and by the public, for acclimated policy responses that support stronger and further intertwined original health systems.

CONCLUSION-

In summary, the current extremity calls for a paradigm shift in public and global health programs. We'll not be prepared for the coming epidemic unless we take bold way. First, global health programs shouldn't be designed on a response mode to case-by-case pitfalls, but should borrow a systems approach that can support a holistic picture of global complaint burdens, pitfalls and health conditions, as well as better consider the system-wide goods of espoused measures. Second, fighting current fragmentation in global health governance will bear a substantial shift in global health policymaking from a reactionary paradigm to a systemic and preventative paradigm, with meaningful commitments to mortal health security. Third, there's a need to shift our focus from short-term restorative programs grounded on the Pasteurian paradigm, to long-term

preventive and promotional programs grounded on a holistic view of people's health, which specially implies limiting environmental factors, reducing social health injuries, helping populations reduce their individual threat factors and accelerating their natural immunity. Incipiently, similar holistic, preventative programs must be acclimated to original surrounds and enforced through strong original health systems suitable to have the ' bumper ' capacity to respond to extremities

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