

We can Make Sustainable Opportunity from the Pandemic (Expert Opinion)

Samira Mohamad*

Professor of Pediatric, Al Andalus University, Syria

***Corresponding Author:** Samira Mohamad, Professor of Pediatric, Al Andalus University, Syria.

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We live in an era of unprecedented advancing and shining science. Scientists gave an example of transparency and global collaboration during one and a half year of COVID-19 pandemic, they shared the novel viral genetic sequences [1] from first week the pandemic was declared by WHO and started working everywhere possible on vaccine, on treatment, on testing, we witnessed during the age of pandemic unprecedented amount of advanced research on novel COVID-19 helped in understanding and management also enlightenment about the novel disease progressively, updating continuously and actually foreseeing. But unfortunately we failed to respond properly to what science implying, failed to prioritize our health for example the vaccine was made by using SARS-CoV-2 spike protein (S) in unprecedented short time for vaccine production hopefully to achieve herd immunity bearing in mind the inevitable mutation of the novel RNA virus, indeed COVID-2 variants emerged alongside with vaccines, but presents vaccines offer significant protection against already emerged variants including Delta variant the highly transmissible spread already in 74 countries and dominating in UK, but the rollout of vaccine was too slow, we failed to achieve herd immunity and currently to win the race with Delta variant, luckily our advanced scientists are looking ahead and started already working on new different vaccines to be more powerful and sustainable in different methods, by using strong spike protein, stable in any possible variant from an identified (R355D K424E) mutation which the scientists produced using special technology called spike Mutator and landscape [2] or by using the viral nucleocapsid (N) protein, or by using HLA-1 peptides of SARS-CoV-2 virus identified from both S and N protein not captured in present vaccines and elicited T cell immune responses in COVID-19 patient [3] as well by using GRP78 molecule works as co receptor and as stabilizing agent between ACE2 and spike protein allowing more efficient viral entry into host cell [4] and many other ideas [5] on vaccines reassuring to get the effective needed vaccine.

Another clear example from real life showing the big cost of inefficient response to science, when scientists WHO first announced in January 2020 that COVID-19 is zoonotic disease, the virus is spilling over [1,11] from unknown wild animal reservoir like MERS and SARS before and it has the means to transmit from person to person quickly, WHO stated comprehensive approach to contain the virus from the start anywhere in the world, which is meanwhile the search is going on to identify the animal reservoir, to apply full package of protective measures precisely “for government to provide PCR testing material the best test available at that time, to test vigilantly every new or suspected cases, to trace contact and treat or isolate accordingly. testing is considered strategic to identify people infected so that action can be taken to slow and stop the spread of the virus as CDC stated in recent overview of testing [6] and the other necessary measures to complement are social distancing and masks, and hand washing, stay at home and lock down when necessary, and protection of elderly and vulnerable people” but governments failed even in rich countries in preparedness, to provide enough testing materials and to act rapidly, ironically instead the concentration stressed on social distancing and masks and restricted movement and was perceived as sufficient measures, and the elderly and vulnerable people to stay at home, therefore the chance of rapidly containing the virus was missed in most but some countries who responded accordingly, virus transmitted rapidly in spite of stay home and lock down measures imposed to flatten the curve of COVID-19 cases because of not supporting restriction measures properly [9] neither by meticulous detection of new cases, testing and tracing nor by providing essential for living to stay at home and generally lifted before reaching viral containments impatiently to reopen the economy, lock down measures hit directly the low income working class especially ones on daily wages led to unprecedented rise in unemployment, poverty and hunger uncovered deep social inequality, social life with restriction changed to stressful, depressing amid uncertainty with changing values, in addition to overwhelming amounts of misinformation [8] on social media and

everywhere. Although economy has suffered deeply especially by travel and trade restriction but the mismanagements, the restriction, the uncovered weak health systems with insufficient resources even failing to provide health workers with personal protective equipment at some point, the 3,89 million death globally so far, insecurity and finally the fact of pandemic not getting better but worse and variants spreading draw attention of many to probability of using crises to serve who are in power potentiating mistrust in government and trade companies, and increased the hesitant [7,8] about vaccination. indeed the present situation is complex with unattainable herd immunity in highly interconnected world also open to augmentation as no one can exclude possibility of new unresponsive variant, disparity in immunity is going to be present always in societies as far as there are people who can't develop immunity and many reluctant to take the vaccine and if we take in consideration that developing countries are far lagging behind in vaccination as solidarity was almost missing in this pandemic, rich countries behaved national and Covax is deeply disappointed. we can see clearly global herd immunity is just a dream therefore possibility of transmission of infection even not deadly to vaccinated individual always in mind in spite of vaccine certificate and travel rule for control, it's the dynamic of life, the spill over of people as a result of global inequality, in paradox some countries such as south Korea and Vietnam responded efficiently prioritizing health and putting sufficient resources where needed, they have been able to stop the spread of infection.

Examining our present reality we obliged to think in two dimensions if we are to think of sustainable solution, first what is the way out of uncertainty and how to make out of it an opportunity. Secondly how to prevent future pandemic.

Beside the importance of re-building strong health system from already available resources and the jobs creating accordingly, we need mostly new mentality, a value perspective to see the wisdom behind moments and facts not to reduce it to right and wrong or trade-off duty and sequences, currently debate about appropriate policy reflect this need for certainty, I see the reference point in science as in scientific facts always element of truth take you to the wisdom and might open the horizon to solve many other problems, in our case the social problems, inequality and poverty, unemployment and economy. And I see an excellent start in recent scientific study [10] from Hong Kong published recently in *British Medical Journal* taking us more basic, to the bottom of covid 19 infection the battle between the virus and our immune system presenting to us evidence how to enforce our immunity in sustainable way potentiating in that the protection we earned by vaccine and opening big horizon, the study enforcing what is known for more than a decade that gut microbiota is central to regulation of our immune response. And demonstrated that sars-cov2 replicate as well in human enterocytes and the virus is detected in stool samples of patients even long time post recovery, and describe the dysbiosis an alteration of gut microbiota composition in patient with covid-19 which deplete microbiota from good immunomodulatory bacteria such as bifidobacterium and others accounting for severe immune response and leading to several organ involvement and increased inflammatory markers in blood, and playing big role in post covid symptoms. opening the door for possible new mitigated course of disease severity through bolstering good immune modulating bacteria and pointing out to what we can draw from this enlightenment for sustainable immunity namely to advocate healthy diet rich in fibers from full grain and fruit and vegetable, to stop processed food and lessen the pro inflammatory diet like meat of course it's a big challenge to influence food chain supplier to change the line from trading processed food to natural and organic and of more important to influence decision makers to support organic farms, but its actually a sustainable opportunity as well creating vastly new jobs in no stressful atmosphere and friendly environment great for immunity and if less meat consumption a vast agricultural land is saved and the new business with modern agriculture technology, and logistic issue is opened to global collaboration, a rewarding trade as the new big line of business can open the vicious circle we created of unemployment, poverty, inequality stressful life, and not the least it's full health package for lowering risk of heart diseases, type 2 diabetes and obesity and cancer. of course we can't change the world at once but to start seriously to advocate, to build awareness starting from schools to community, by art media and to influence on most possible scale, what we clearly need is a new mentality in making decision to grasp the wisdom behind facts, clearly here is the harmony of gut ecosystem, this raise the question of connection with harmony of ecosystem in nature and universe as we are all connected and our cells as we know being renewed continuously and that take us to second point how to prevent future pandemic the reference point is science as well virologist and epidemiologist pointed out very clearly from the beginning that the disease is zoonosis the virus is spilling over from an unknown

animal reservoir [11,12] as a result of human insult to environment, to wildlife, oceans and to ecosystem biodiversity in which every plant and creature has reason and meaning, as we know trees sequester carbon, wild animals are the main viral reservoirs all novo to human therefore when human degrading ecosystem and driving many creature to extinction most probably affects viral evolution as well the suffering animals from newly created environment, indeed virologist and epidemiologist stated pandemic happens with changing human behavior, pointing out that there are as many as thousands of novo viruses harboring in wild animals threatening of future pandemic ringing the bell to act promptly stopping overtaking wild landscape and wild animal habitat [13] all that will create sustainable opportunities of jobs and of course reserve natural healthy food to both human and animals along with big hope the pandemic is big incentive to activate climate change global initiative and open the horizon to vast job opportunities and wealth.

On media in April 2021 a wandering group of 15 beautiful Chinese wild elephants 500mile away from their habitat between Chinese towns searching food and new habitat advertising how human activities degrading ecosystem.

Obviously the more we live in harmony with nature the more we are immune to diseases and pandemics, less inequality and poverty live happier without stress, with virtuous value in the same context in my mind an observation and questioning in Syria after ten years of terroristic war changed the country from rich to poor most people busy searching daily living, they can't afford meat, they eat only bread and herbs and vegetables, a plant food, they are traumatized to an extent they lost confidence in everything and they either deny the pandemic or challenge it as one of thousands stresses they have encountered refusing any protective measures in a very crowded shoulder to shoulder forced gathering to get their essentials, as well as in public transport, I don't have study to present, we must do it and we don't have the mean to study gut microbiota, I wish we can but it's surprising the symptomatic covid-19 infection is minimal comparing to such reality and most death encountered in people with co morbidity well enough to eat meat, I managed to get some data by whatsapp message from doctor involved in ongoing study about covid19 management of inpatients in Tishreen university hospital, Latakia, This hospital like other hospitals around the country were provided with PCR testing and PPE provided as help by WHO programs for inpatients, of 125 patient in the study, 90 above age 60 years and 105 have chronic diseases "diabetes, heart diseases and hypertension and others, 18 death but the doctor thinks most death was mainly due to mismanagement and mishandling ventilators at the beginning of the pandemic, reality worth studying, is it the microbiota in harmony with nature.

Bibliography

1. Prof Roujian Lu., *et al.* "Genome characterization and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding". *The Lancet* (2020).
2. Mohamed Raef Smaoui and Hamdi Yahyaoui. "Unraveling the stability landscape of mutations in the SARS-CoV-2 link and date (2021).
3. Shira Weingarten-Gabbay., *et al.* "Profiling SARS-CoV-2 HLA-I peptidome reveals T cell epitopes from out-of-frame ORFs (2020).
4. Anthony J Carlos., *et al.* "The chaperone GRP78 is a host auxiliary factor for SARS-CoV-2 and GRP78 depleting antibody blocks viral entry and infection". *Journal of Biological Chemistry* (2021): 100759.
5. Tamalika Kar., *et al.* "A candidate multi-epitope vaccine against SARS-CoV-2". *Scientific Reports Volume* (2020).
6. Overview of testing for Sars-Cov-2 (COVID-19). CDC (2021).
7. Freeman D., *et al.* "Effects of different types of written vaccination information on COVID-19 vaccine hesitancy in the UK (OCEANS-III): a single-blind, parallel-group, randomised controlled trial". *Lancet Public Health* (2021).
8. Johnson NF., *et al.* "The online competition between pro- and anti-vaccination views". *Nature* 582 (2020): 230-2331.

9. Elizabeth Mahase. "Covid-19: How does local lockdown work, and is it effective?" *BMJ* (2020): 370.
10. Yeoh YK, *et al.* "Gut microbiota composition reflects disease severity and dysfunctional immune responses in patients with COVID-19". *Gut* 70 (2021): 698-706.
11. Nature The Novel Coronavirus and Its Connection to Wildlife (2020).
12. Roujian Lu, *et al.* "Genomic characterisation and epidemiology of 2019 novel coronavirus: implications for virus origins and receptor binding". *The Lancet* (2019).
13. Theconversation.Com, A clue to stopping coronavirus: Knowing how viruses adapt from animals to humans (2020).

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