Türk Tabipleri Birliği
Turkish Medical Association

Hans Kluge
WHO Regional Director for Europe
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Dear
Hans Kluge
WHO Regional Director for Europe

In your person, we first want to express our thanks to the WHO Office in Europe for its contributions to combat against the SARS CoV-2 Pandemic emerging globally during the early days of 2020 and spreading quickly. Any effort in this process contributing to the response of individual countries to the pandemic is important and valuable.

We have learned your assessment about the COVID-19 process in Turkey with the tweet you shared on June 10th. We must say that your tweet stressing Turkey's "resolute progress", "documentation of lessons drawn", "largest seroprevalence survey ever undertaken and immunization experiments" and "leaving no one behind including Syrians" and congratulating the Minister of Health were received with astonishment by us as physicians and scientific community following the process here in Turkey very closely. At this point we, as Turkish Medical Association, find it important to share with you our opinions concerning the process and some of the reports and documents we have already shared with the public.

The first wave in the course of the pandemic in Turkey could not be suppressed, the number of cases is not in "steady decline" and to the contrary a rising trend is observed in the daily number of cases during the last week.

As leaving behind the 100th day of the pandemic since the first confirmed case in Turkey there is no epidemiological data and any report or document related to risk groups (age 60 and over, chronic diseases, refugees, etc.) released by the Ministry of Health other than daily announced numbers of confirmed cases, confirmed deaths, tests applied, patients under intensive care and intubated patients. This is a situation not in compliance with the perspective of the World Health Organization with respect to outbreak management, risk communication and community participation. In other words "lessons drawn are not documented" in Turkey."

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While the Minister of Health mentions many successes including treatment in the first place, scientific evidence supporting these successes is not supplied and the Ministry is now about to introduce unprecedented permission procedures for scientific studies. In all studies related to COVID-19 it is compulsory to get permission from the Ministry of Health. At present there are many researchers whose applications for study have been turned down by the Ministry and these researchers have no information why their applications were turned down. Yet, scientific studies cannot be restricted as initiatives shedding light to future.

For Turkish Medical Association it is pleasing that large-scale epidemiological studies can be conducted though somewhat late. Yet, the "seroprevalence survey" launched by the Ministry of Health and you mention with commendation is critically discussed by many circles including scientists in such branches as epidemiology, public health, infectious diseases, clinic microbiology and chest diseases. It is officially stated that the seroprevalence survey will be conducted with 153,000 persons. But we have no information about the following: Epidemiological approaches and assumptions that the survey is based on; who will take part as researchers; why such a large sample size is needed and how that size is figured; cost of the study and how it will be financed; which measures are envisaged for survey teams to work in fields with respect to their own health and community transmission; and whether the survey is approved by the board of ethics.

We must add that "vaccination experiments" mentioned in your tweet also raise concerns in medical circles. Leaving aside your clear intention, there is no information shared with the public concerning COVID-19 related vaccine development work in Turkey and this situation may well lead to various speculations.

As Turkish Medical Association we submit to your information some documents reflecting our activities in the process as well as our perspective. We are fully aware that important and invaluable efforts of your WHO Office in Europe will continue in this difficult process. As we had shared with the Ministry of Health on very early days, let us inform you that we, as the national organization of physicians, are ready to make all contributions that are needed.

With our sincere regards,

Prof. Dr. Sinan Adıyaman
President of Turkish Medical Association

TURKISH MEDICAL ASSOCIATION

From the first announced case in Turkey to the present day...

Where do we stand in the outbreak?

(Evaluation of the first 3 months)

The year 2020 started with the second pandemic of the century and is still going on. The COVID-19 pandemic is presently threatening the world as further aggravated by such social and economic factors as ecological degradation, destruction of natural habitats, distorted urbanization, commercialization of wildlife and growth of industrial stock-breeding.

The pandemic further deepens the crisis in the environment of global capitalism which ignores veterinary public health and one health approach, takes health apart from its context and reshapes it as an instrument responsive to the needs of the system. And now there is the race "We are more successful" in the capitalist system that gives rise to and further spreads diseases while destroying the nature.

Yet, the emergence of a global crisis as a result of the pandemic is only one side of the picture; the other side which is less visible is the fact that the present pandemic is the result of a system that was already in crisis.

This is not the first pandemic; neither will it be the last.

We have lost 4,763 citizens and hundreds are now in intensive care.

The number of cases is still in fluctuation. Each day we have close to 1,000 patients with positive test outcome. How many patients are there with negative PCR test but receiving COVID-19 treatment? **We don't know, because it is not made public.**

We lost 43 health workers in this process, 23 of whom were physicians.

Our thanks are due to each and every physician and health worker mitigating the effects of the outbreak, preventing further transmission, protecting healthy ones and healing patients.

We can still hear the words of one of our colleagues we have lost: *"We still have no protective outwear; our hands are worn off with alcohol and we can hardly eat afraid of transmission. We are also afraid to give a hug to our children while at home."*

We don't forget the case where "COVID-19" was not cited in the death certificate upon the loss of another colleague of ours on the ground that his test had turned out to be negative and autopsy was required.

We don't forget how health workers remaining out of their homes and away from their beloved ones were deceived with "additional payment" offered when they just tried to uphold their rights without asking for any material return. They said *"Your service is priceless"* and indeed they paid nothing.

We don't forget top-level government officials saying "*Health workers could not protect themselves. Perhaps we could be talking about return to normalcy today had they not been a burden to us."*

We don't forget having worked without masks, shields, gloves and gowns.

We don't forget our colleagues in the private sector who were forced to unpaid leave while their rights were denied.

The number of PCR positive health workers which was 601 on April 1st. and rose to 7,428 on April 29th. **There is no information on what this number is for the last one and a half month since it is not made public. The Ministry of Health keeps silent about the health status of health workers.**

The outbreak is being managed with "secrets".

We know from applications to Chambers of Medicine and from the media that health workers keep working although many of them got sick and lost their lives in the third month of the outbreak.

They keep providing services every day at family health centres, hospitals, workplaces and patient homes and still face qualitative and quantitative problems in relation to personal protective equipment.

There is no specific arrangement in relation to the health status of health workers in the context of Covid-19 although it is known that they have higher risk than the rest of the society.

They still suffer violence, as it was the case in a hospital in Trabzon and in Istanbul while engaged in filiation in a private home.

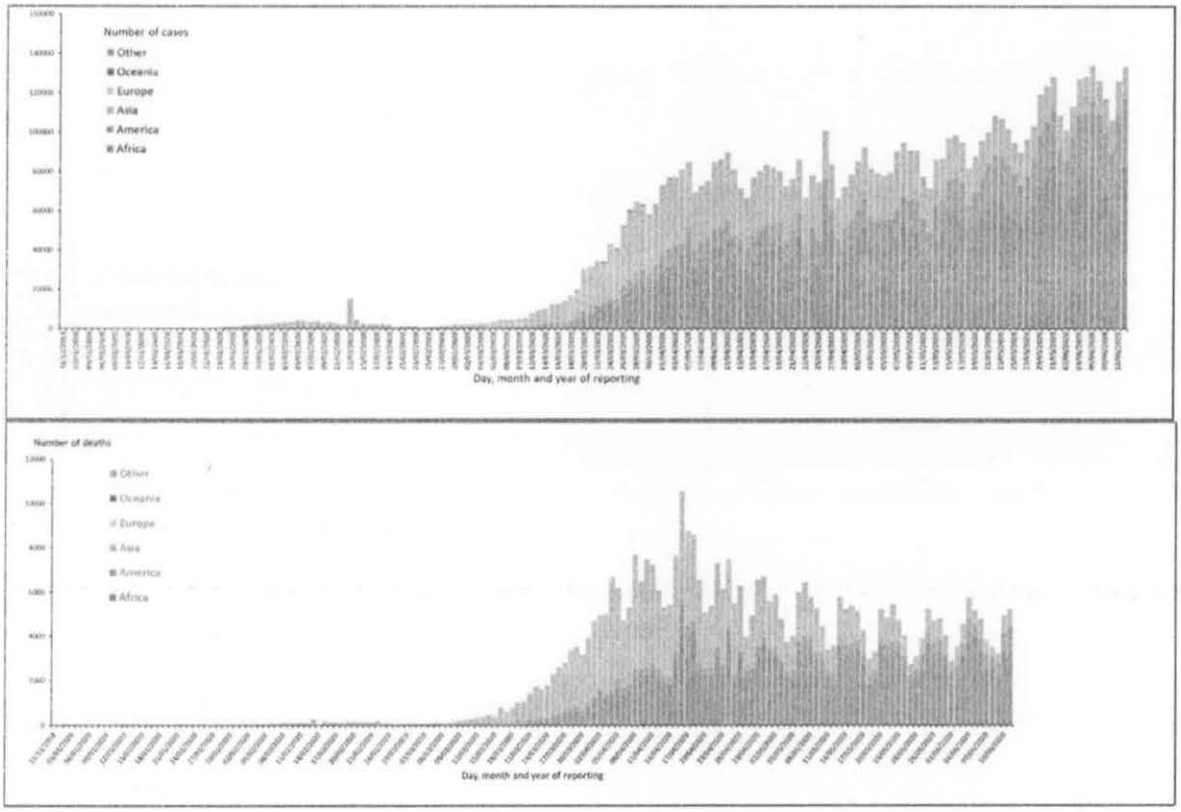
Representatives of health workers still do not have their place in provincial pandemic boards. Unfortunately, health workers too can but follow the number of cases and deaths and the process of normalization in the media only.

There are yet no plans and arrangements to manage the burden of work that will fall upon the health system when trying to respond to needs that have been deferred for three months. If any, planning for work burden that will inevitably be heavier following the "reopening process" is not shared with health workers and their representatives. This situation increases the possibility of calling back to service those risk group workers who were deemed as in administrative leave.

In the third month of the outbreak health workers keep delivering services by risking their lives.

Despite the elapse of 5 months since the first confirmed case, the pandemic is yet not over and keeps affecting the whole world.

Turkey has left behind three months since the announcement of the first confirmed case in the context of the COVID-19 pandemic rapidly spreading throughout the world starting from January this year.



- Number of confirmed cases
  - World 7,414,050
  - Turkey: **174,023**
- Number of confirmed deaths
  - World: 417,514
  - Turkey: **4,763**

The number of active patients in Turkey is[1] **21,400** as of 11 June 2020.

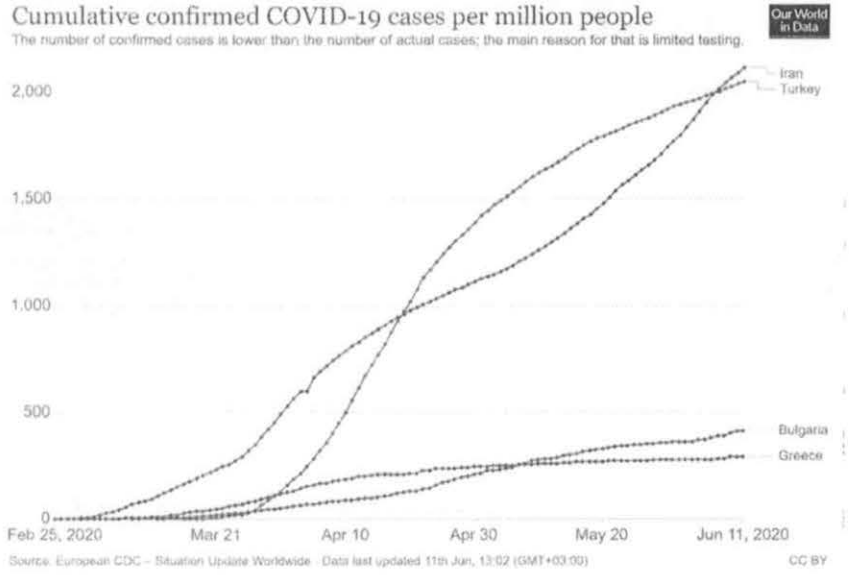
The Ministry of Interior announced the application of quarantine measures as of 8 p.m. on May 31st, 2020 covering 58 settlements in 24 provinces including 2 townships, 20 villages, 34 neighbourhoods and 2 hamlets with total population of **51,669**[2].

The number of people in quarantine and active patients clearly show that the effects of the COVID-19 outbreak are still persisting in Turkey.

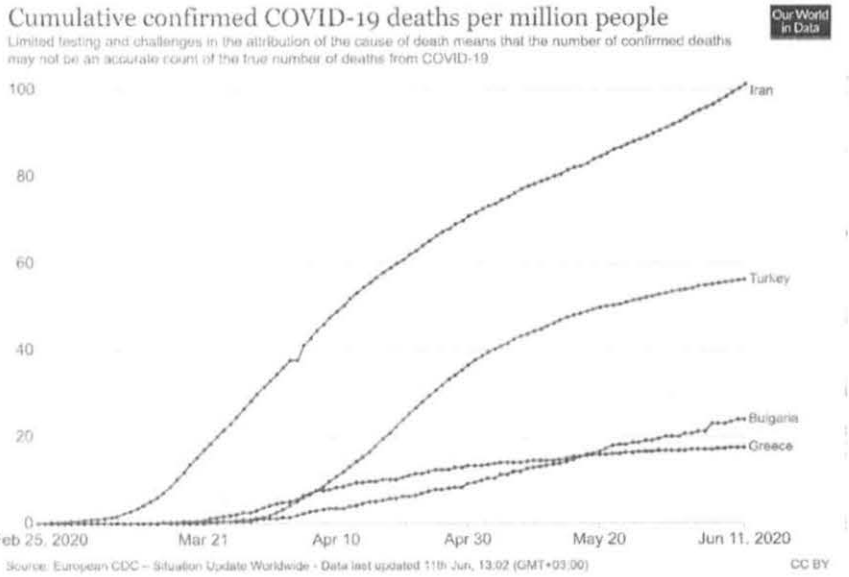
[1] The number of cases known to be infected found by subtracting deaths and recovering patients from the total number of confirmed cases.
[2] https://www.icisleri.gov.tr/15-ilde-uygulanan-sokaga-cikma-kisitlamasi-31-mayis-saat-2400-itibariyle-sona-eriyor

Turkey is the **17th** most populous country in the world. At the end of the third month of the pandemic Turkey ranks **12th** in the number of confirmed Covid-19 cases and **17th** in the number of confirmed Covid-19 deaths.

Comparing with neighbours, Turkey stands similar to Iran in terms of the ***total number of confirmed cases*** per 1 million people. The number of confirmed cases in Greece and Bulgaria is less than Turkey's figure for the same scale.



Again comparing with neighbours, Turkey is in a better situation than Iran in terms of the ***total number of confirmed deaths*** per 1 million people, but her death toll is higher than in Greece and Bulgaria.



Where do we stand in the third month of the outbreak?

As closed places including shopping malls are rapidly re-opened since May 11 and statements like "We are indeed successful" follow each other, there are also discussions on the arrival of

the second wave; yet, we are in no position to safely assert that the **first wave with its devastating effects has been successfully suppressed**. Moreover, there is global discussion on medicine used in treating cases. While all these are common knowledge, there are early declarations of Turkey's success in treatment without any supporting scientific studies. Many issues and details about the pandemic are still far from certainty. Epidemiological indicators required to make international comparisons are not made public yet. We cannot grasp how a "success story" can be drawn from an outbreak that cost the lives of some 5,000 citizens. In order to assess Turkey's response to the pandemic and engage in international comparisons we wait the Ministry of Health to share with professional organizations, scientific community and the public detailed data relating to the outbreak (i.e. distribution of cases and deaths by age groups, gender, place of settlement, co-diseases, risk groups, etc.).

Poor coordination in the management of the pandemic becomes obvious when the statement by the Ministry of Health suggests no weekend curfew at first, followed by the Ministry of Interior declaring weekend curfew in 14 + 1 provinces, and finally the President stating the lift of curfew.

Neither do we know the scientific justification of the decision to let people at age 65 and over out only between 10 a.m.- 8 p.m. in a day.

Unprecedented authorization procedures for scientific studies are about to be introduced (Scientific studies shed light on future and cannot be restricted! https://www.ttb.org.tr/kollar/COVID19/haber_goster.php?Guid=ad162464-96a9-11ea-baf3-777c09b98775).

The outbreak management in Turkey is carried out in a manner far from participation and data sharing including data and analysis that the science of epidemiology requires in outbreak management which gives rise to questions to what extent this management is based on evidence.

The Ministry of Health insistently keeps avoiding supply of any information on the distribution of cases and deaths by different variables (i.e. province, district, region, age, gender, other diseases, risk groups, etc.). Keeping this information relating to cases and deaths hidden prevents any comprehensive assessment of the pandemic. While there is news around the world that this type of information and data are sold to various private companies, questions arise whether this situation in Turkey is an indicator of this kind of abuse.

Internationally recognized suggestions related to death registry are still not adopted.

We are following with astonishment statements like **"cases are getting milder"**. Where is its evidence? Nowhere… The existing academic studies say just the opposite. For example some studies focusing on full genome analysis of the virus say "there is no change in the virus which may lead to more positive or more negative outcomes" and add "consequently, measures against transmission must continue to be applied strictly."

Could we bring the outbreak under control? No evidence. Facts that the outbreak curve shows no decline after having reached its peak, clustering of cases that were confirmed particularly after the premature opening up on May 11th and many cases of quarantine countrywide all suggest that it is yet too early to declare the outbreak as under control.

It is a positive development that wide-scale epidemiological field study proposed by the TMA was eventually undertaken though in delay. It is stated that this seroprevalance study will be conducted with 153,000 persons. But we have no information about the following: Epidemiological approaches and assumptions that the study is based on; who will take part as researchers; why such a large sample size is needed and how that size is figured; how households are identified from provinces; cost of the study and how it will be financed; why it is not preferred to select age and gender specific sample; why only province centres are included in the sample thus leaving out districts; how the number of household to be included in the sample is determined and which measures are envisaged for survey teams to work in fields with respect to their own health and community transmission. At this point we suggest that the study must be re-visited epidemiologically with its various dimensions and finalized and launched after discussing it with the scientific community and considering their suggestions.

As Turkey we are rapidly "normalizing" in a period when the total number of cases made a peak globally, as it is globally going worse and transmission is still going on. **For each restriction that is recently relaxed we look for scientific basis but we cannot find.** We have no information about suggestions made by the Science Board while it is said that decisions are taken in line with their suggestions.

Health services need to be re-planned in this period of 're-opening' which is called "normalization." While we keep delivering preventive and curative services needed by both Covid-19 patients and others **how do we plan the process of responding to patients with various health problems who deferred their applications during the outbreak?**

While listing measures to be taken in the delivery of health services in its document titled "Guide for Working in Health Institutions in the Period of Normalization" the Ministry of Health draws attention to two parameters to consider when deciding on measures in that part of the document titled "Plan on Returning to Normalcy in Hospitals during the Subsiding of the Covid-19 Pandemic":

1. At province level, observance of steady decline in Covid-19 incidence for at least 14 days,

2. Decision on whether to apply PCR tests to patients for screening purposes prior to surgical operations (screening test is not suggested when the rate of positive tests in the region is %2 and below and suggested if it is higher than 2%).

It is still uncertain how the 'Plan on Returning to Normalcy' is to be implemented while no data is shared at province and country levels and while hospitals, clinics and doctors have no information about how to reach such data.

Are the pandemic-specific needs of primary level health facilities are met? Is there a pandemic-specific structuring and concept of management developed? Does the Ministry of Health hear the voices of family physicians?

Do we get answers to our questions? No!

With June 1 we witnessed the rapid lifting of restrictions. But in relation to restrictions maintained to protect risk groups, we also observed that health-related needs of 65 + age

persons are not taken into account. This age group had to stay home starting from 21 March; no data is shared whether this measure is indeed effective and the practice has become even more debatable when it was said that 93% of deaths is from this age group. The elderly population felt excluded and became introverted in the face of problems ranging from their chronic diseases to unmet nutrition and exercise needs, from psychosocial problems to unchecked discourses of stigmatization. In the meantime, while everything was getting "normalized" their normalization was confined to 10 a.m. to 8 p.m. hours and so they were hurt once again. Having their priority in the re-planning of health services in the "normalization" process, **the population group 65 + is and will be directly or indirectly experiencing the impact of the pandemic on morbidity and mortality.**

Another area in medicine and health affected by the pandemic is medical education. During the process graduate level medical education was stopped by the YÖK (Higher Education Board) with the exception of interns (on the condition that they volunteer and approved by medical schools. The initiative regarding the training of interns was left to universities. In this process we also observed **changes in medical education in faculties of medicine.** At present there is no clarity as to how these changes will affect students' education, whether activities presently carried out will meet relevant standards and whether there will be some catch-up mechanisms and activities. There is yet no response to suggestions made by relevant organizations and associations including "In the post-outbreak period and under circumstances allowing normal class-based education, implementation of an intensified remedial programme and planning for the completion of education in face-to-face environments as far as possible while keeping to the rule of physical distance."

It is critical to ensure community adaptation to outbreak management and to adequately inform people about the transition period in the process of "re-opening." Yet, can anyone hear the voice of inequalities in society? The discourse "virus is affecting all" conceals poverty, inequality and class demarcations while placing the whole burden on individuals. While class inequalities deepen, authorities introducing counter measures fail with respect to social and economic support, and the pandemic continues in a way to bring about new adversities. While vulnerable groups (elderly people, migrants, people in prisons, and all others facing discrimination) are affected deeper and in need of quality health services they are stigmatized at the same time. The outbreak further deepens already existing inequalities. Community adaptation to the outbreak is possible by adopting appropriate measures while, at the same time, informing people adequately in the process of normalization, and this requires the use of a discourse that can appeal to different segments in social life.

Having left three months behind and knowing that we still have a long way to go we want to remind once more what we have said earlier.

- Correct method in combating the outbreak is to act in accordance with the science of epidemiology.
- Treatment is important; but success in any outbreak depends on preventing transmission/getting the disease.
- Protecting from the disease and preventing the infection of healthy persons is the top priority. This requires outbreak management based on scientific information and evidence led and coordinated by the Ministry of Health in a transparent way and with the engagement of all relevant parties.

- The basic approach to the COVID-19 pandemic must be to reduce transmission from infected to healthy persons by ensuring that people contact less with each other.

Decisions of early relaxation and opening out at the end of the third month of the outbreak which is not supported by scientific evidence led, starting from June 1st, to increase in the number of cases and also patients in intensive care and in need of respiratory support. The Ministry of Health keeps warning citizens to strictly abide by on-going rules to keep the outbreak under control. We agree with this call of the ministry but also know that infectious disease outbreaks cannot be controlled solely by personal measures. Besides, there is also need to introduce institutional measures particularly at workplaces, public spaces and mass transportation and to monitor and supervise their implementation.

We call on all institutions and agencies including the Central Government, Local Governments and Ministry of Health to adopt institutional measures.

Central Council of Turkish Medical Association

Success in the epidemic is to prevent transmission and illness!

The right way in combating is to comply with the science of epidemiology!

March 30, 2020

Treatment is important, but the real success is in preventing transmission of the disease

The SARS CoV-2 which infected over 700,000 people in 198 countries and led to the death of 33,000 patients is a disease that had not been known before. It is yet not fully known whether those recovering after having been infected (COVID-19) develop full immunity and we are presently in a period in which all uninfected people are under risk. The infectiousness of the disease is quite high relative to similar ones (RO=2-3) and according to scenarios developed on the basis of epidemiological data more than half of all human population may get infected, the disease may reach its peak within three months, and cause very high mortality in case no control methods are adopted.

The Covid-19 virus is transmitted by respiration and mouth. Transmission occurs when droplets spread by infected persons when coughing or sneezing move to respiratory organs of healthy persons or when healthy persons touch their eyes and mouth after touching surfaces contaminated by these droplets. Within 2-14 days following transmission, the disease makes itself manifest with such indications as fever, coughing and respiratory distress. 30 out of 100 infected persons experience the disease without any symptom and about 50 have mild symptoms without feeling any need to apply to a health facility. The remaining 20 need medical care and treatment while only 4-7 out of these need respiratory support and intensive care. As is the case with almost all other viral diseases there is yet no Covid-19 specific medicine or treatment.

Given all these, it is essential to protect from the disease; that is preventing the infection of healthy persons. This requires, in turn, **OUTBREAK MANAGEMENT on the basis of scientific knowledge, led and coordinated by the Ministry of Health with the engagement of all relevant parties and in a transparent manner.**

The basic approach to the COVID-19 pandemic should be preventing virus transmission from infected to healthy persons by limiting and avoiding close contact.

The first stage in outbreak management is the introduction of an **ACTIVE SURVEILLANCE SYSTEM** and application of systematic **FILIATION** (finding contacts and other patients on the basis of known cases). In outbreak management, it is also essential to implement three complementary components in a correct way and correct time.

The first of these is **QUARANTINE**. It is keeping suspected cases, persons who are known or assumed to have been in contact with infected persons in a separate place in appropriate circumstances while preventing their contact with healthy persons for a period of time equal to the longest period of incubation of the virus concerned. It is an example of quarantine practice that the Ministry of Health hosted 62 citizens transported from China with a special plane at a now out-of-service state hospital for 14 days although no indication of disease could be observed in their medical exams and tests. On the other hand, the hosting of only the last party of Umrah returners together in a student dormitory demonstrated that there is no systematic, scientific and coherent approach to quarantine practice and while seemed necessary, quarantine was never applied again by the Ministry in many situations.

The second is **ISOLATION**. It is the practice of keeping confirmed cases separate for a period of time corresponding to the infectiousness period of the disease. It is an effort to prevent transmission from infected persons to others in direct or indirect ways. It is a practice of isolation when confirmed covid-19 cases who do not need hospital care are kept home after taking necessary measures to protect other

family members. Boarding facilities must be provided together with local government when isolation conditions cannot be satisfied at homes.

The third and the last one is **SEGREGATION**. It is the opposite of isolation where uninfected, healthy persons with the risk of being infected are kept separate. The idea is to keep groups with higher risk safe from infection. An example is keeping 65 + population known as with higher risk of Covid-19 infection at home. But it requires special measures since there are many in this age group living with their children and grandchildren and there can be no mention of effectiveness if such measures are not taken.

Apart from these, community containment may be considered as a general measure against the outbreak. This may include, given that a large majority will be abiding, the cancellation of all gatherings, closure of schools, switch to home-based work and keeping 2 meters distance in compulsory encounters in order to reduce personal interaction and mobility. Yet, this initiative cannot be expected to be effective in circumstances where private sector employees have to continue working without paid leave.

The following are some relevant events taking place in Turkey after the global recognition of the pandemic:

1. Border gates were only gradually closed although it was known that there was outbreak in Iran and no effective quarantine was applied to persons coming in from that country.
2. Almost no restrictive measure was applied to over 300,000 persons coming in from European countries where the outbreak is known to exist with the exception of temperature screening.
3. When tension built up with the EU, migrants-refugees in various parts of Turkey moved en masse to provinces on the Greek border. Staying there for about a week they then returned again en masse to their original residences. By this, official authorities did exactly what they should not have that further increased the risk of transmission.
4. Although the presence of outbreak in Saudi Arabia was known and there is contact with people from many different countries during the Umrah, no quarantine was applied to the majority of more than 20,000 returnees including deputies and top-level bureaucrats in the first place. After returning these people dispatched to their homes in almost all provinces of Turkey and received in close contact congratulations of their relatives, friends and neighbours.
5. While schools and universities were closed, military recruitment and discharge procedures continued.

According to the statement made by the Minister of Health the number of tested cases could reach only 65,000 as of 29 March 2020. No systematic test was applied to a large part of people with indications, contacts and health workers in health facilities in contact with confirmed or suspected COVID-19 cases. We have no information what steps are taken for filiation. Consequently, the number of CONFIRMED cases is presently only 9,217.

Yet, given the known characteristics of the virus and practices related to patients and/or their contacts we can say the disease is common in almost all parts of the country though we cannot give figures.

Examining the outbreak curve from the date of the first confirmed case, we notice that there is a kind of suppression strategy at the initial phase; however, due to approaches explained above under five items there is de facto switch to the strategy of mitigating the effects of the outbreak which is nothing less than infecting the country. Cases and contacts are almost everywhere. The chance of introducing countrywide quarantine was missed after this point. Nevertheless, quarantine and isolation can still be resolutely and rapidly introduced at local/regional scale in the light of epidemiological data. At the point reached today, however, there is no point in implementing countrywide isolation with the exception of risk groups (65 + persons living only with their spouses and not with their children and

grandchildren, patients with such health problems as cancer, diabetes, blood pressure, immunodeficiency, etc.).

As suggested by the World Health Organization what needs to be done today and after is to conduct as much tests as possible and apply a rigid isolation. Including Syrian refugees, some 90 million people are living in Turkey; there is need to conduct 30,000 tests daily and to keep persons with positive test results as well as their contacts apart from others. Isolation can take place in private homes or, in cases this is not possible, at facilities like dormitories and hotels selected for this purpose.

Examining the history of outbreaks in the world and in Turkey we find that it is possible to reach success in outbreak management if scientific knowledge is adopted as a guide and relevant practices are defined by and in line with scientific concepts.

At the present stage, **community containment must be maintained for a period to be determined in the light of epidemiological data**; tests must be applied to all with indications besides active surveillance and filiation, and weight must be given to the isolation of those who do not need hospital care. Also, measures to arrange working conditions and physical distance must be taken at province level by evaluating the number of services and health service capacity at provincial level.

It is not sufficient to talk about measures against the pandemic including community containment in the first place without ameliorating the conditions of those without regular income, who subsist on their daily earnings and the poor who can hardly provide for their essential needs.

Without forgetting the need for a comprehensive public health system, what needs to be done today is to urgently extend support to working people, the unemployed and the poor to minimize the effects of the outbreak on their subsistence and health (*i.e. paid leave, expanding the coverage of unemployment benefits while increasing the amount, free water supply-heating-electricity for the coming three months)*. Resources of Turkey are sufficient to extend this kind of support.

Central Council of Turkish Medical Association

TURKISH MEDICAL ASSOCIATION'S (TMA) BIMONTHLY ASSESSMENT REPORT OF THE COVID-19 PANDEMİC (12 May 2020)

SUMMARY

The National Pandemic Influenza Preparedness Plan is an important document developed within the framework of WHO guides and documents. 2019 was the year in Turkey when this plan was updated. Although this recent update of the plan was important in terms of the effectiveness of country's response to the outbreak, the Ministry of Health did not consider and update this document in the context of combat against the COVID-19 pandemic. Although the present pandemic does not derive from the influenza virus, the overall framework for pandemic preparedness also provides the main framework of response to the COVID-19 pandemic. Yet, developments taking place give rise to question marks as to what extent this main framework is followed in the process of the COVID-19 pandemic. There is no initiative taken in Turkey to rapidly adapt this plan to COVID-19 in the light of what is being experienced in the world.

The absence of any early adaptation of plans to the COVID-19 as well as participation later brought along problems like bottlenecks in the supply of personal protective equipment. There are also problems related to the absence of plans for risk communication in the early period and to withholding data from the public. For a long period of time even cases of morbidity and mortality were not made public and the number of daily tests conducted was announced starting from the last weeks of March. However, the number of people given test is still not known as the pandemic entered its third month.

What is publicly made known in Turkey is limited to cases confirmed by PCR test and cases of death (the possibility of lower positive test outcomes in Turkey relative to others is a point of debate). Without any information given about the distribution of these cases it is impossible to launch a comprehensive assessment concerning the pandemic. As the second month of the pandemic is over the Ministry of Health avoids giving information about the distribution of cases and deaths by regions, provinces, districts, age groups, gender, social classes, co-diseases, relevant findings and risk groups.

As a result, the distribution of COVID-19 cases and deaths, incubation and transmission periods, etc. in Turkey are not known and no calculation can be made about such indicators as basic reproduction number (R0). Further, it is not possible for independent scientists to evaluate the effectiveness of some policies pursued to mitigate the effects of the outbreak including keeping people at age 65 and over at home and weekend curfews in big cities.

The TMA had raised some questions about the "Transformation in Health Programme" made public in 2003 pointing out to possible problems that may emerge as a result of moving away from geography-based system in the organization of health services particularly in the context of effective combat against disease outbreaks. The government replied to this criticism by saying an early warning system was built in the Ministry of Health and no problem would arise. The Transformation in Health Programme led to the weakening of fundamental features of first step health services including accessibility, coverage, coordination and continuity while ruling out the geographical information system. Although the "Health Threats Early Warning and Response Division" was set up by the Ministry, unfortunately it became clear with the recent COVID-19 pandemic that without a strong primary health care organization the existence of this division alone would not be sufficient in controlling infectious diseases.

The COVID-19 revealed once more the need for a strong social state while reminding the importance of a public health system. The importance of publicly financed and delivered health systems cannot be denied.

Relative to many other countries, Turkey's capacity to effectively respond to the pandemic is not high in terms of the number of health workers including physicians and nurses. Among the OECD countries Turkey has the lowest number of physicians and nurses per 1000 people. It is mainly for this reason that health workers had to work longer hours in order to respond to additional service demand stemming from the outbreak.

Before the time Turkey started to be affected by the pandemic, the Ministry of Health took no initiative to employ health workers who were then not appointed to duties because of political reasons as well as others who were dismissed as a result of the Government Decrees in Force of Law without any final judicial decision about.

Health workers make up the most important component of health system's pandemic response capacity in Turkey. In spite of all negative aspects of the Transformation in Health Programme, health workers at family and community health centres, healthy life units, district and provincial health directorates and second and third level hospitals are all in a dedicated struggle against the pandemic.

The number of hospital beds per unit of population is also low in Turkey compared to OECD countries. The average in the OECD countries is 47 beds per 10000 people while it is 28 in Turkey. Besides this, the bed occupancy rate is also lower. While this rate is 75% as OECD average it is 68% in Turkey. However, the situation is different when it comes to intensive care beds and the number of these beds in Turkey is higher than in many other countries. The total number of intensive care beds in Turkey in 2018 is 38,098, 37% of which is provided by the private sector. However, only 24,071 of these are adult intensive care beds and according to information given by the Health Minister in a Parliamentary session only 13,211 of these beds satisfy advanced level intensive care conditions. If calculated with respect to adult population (in 2019 20+ population in Turkey is 57,611,058) the number of advanced level intensive care beds per 10000 people is 23 which is higher than the OECD average as well as many other countries.

Although the number of hospital beds per unit of population is low in Turkey, there was no shortage of hospital and intensive care beds within the first two months of the pandemic with the exception of İstanbul that the Minister of Health labelled as the "Wuhan of Turkey". This comforting situation is the result of reduced hospital applications by people having problems other than COVID-19 after declaring the large majority of public and private hospitals as "pandemic hospital" as well as the smaller share of 60+ people in total population.

In the context of Turkey's response to the pandemic, the following remarks can be made:

- The World Health Organization states that although COVID-19 is different from influenza, national preparations can still be based existing Influenza Preparedness Plans. Turkey too has her National Pandemic Plan against influenza which was recently updated; but this plan was neither adapted to COVID-19 nor implemented which had its negative effects in many respects.
- The "pandemic plan" steps and procedures included in the Pandemic Plan are not implemented. The fact that a structure like "Provincial Pandemic Board" could be considered only towards the end of March is a clear indicator of this.
- There is no system of monitoring and evaluation to assess the effectiveness of measures taken.
- The Science Board set up early with the pandemic has its important place in the process. However, problems related to its working and implementation of suggestions made by is being debated by the public. Government authorities have frequently stressed that measures are adopted in line with decisions taken by the Science Board. Yet, statements by some board members made to the media have raised questions as to what extent it is actually so. The weekend curfew declared two hours before its start

on the night of April 10th, early opening of shopping malls and statements made after "normalization" steps including the re-start of football matches further increased questions about the working of the board. It is also interesting to note that board members frequently stress their "advisory" status and have no influence over some decisions in recent weeks. Statements made by board members also suggest that outbreak data is not shared with the board.

- The members of the Science Board have contributed significantly starting from the early phase in informing the public and communicating correct messages related to the outbreak. Some of these statements also contributed to the clarification of some points which were not shared with the public by the Ministry of Health.
- Examination of the genetic makeup of isolated SARS CoV-2 virus suggests that the origin of the virus causing COVID-19 disease in Turkey is Saudi Arabia and Iran. This information is crucial in evaluating the entry of the disease to Turkey and supports arguments that the spread of the disease is associated largely with uncontrolled returns from Umrah and delay in preventing arrivals from Iran.
- It is observed that there are problems in risk communication in the process. Studies suggest that social risk perception and sources of information are variable and it is interesting to note that Ministry of Health is not among the major sources of information for the people.
- Considering outbreak control measures, their coverage and timing, we observe that there is a fragmental approach. It was a barrier to holistic management that some measures were not synchronized and also there were some problems relating to their coverage and timing.
- There is no clarity whether there is an evidence-based system to assess the effectiveness of practices in diagnosis, treatment, discernment, surveillance and filiation. Since the Minister of Health informed the public about "filiation" only after some time following the outbreak, it can be said that the basic strategy pursued by the Ministry is based on diagnosing and treating cases at hospitals. There is delay in measures to stop the further spread of the disease (i.e. active surveillance system, filiation, etc.). In the COVID-19 Guide that the Ministry of Health released with update on the day when the first confirmed case was announced (11 March 2020) the following is said in relation to contact tracing: 'No measure is envisaged in relation to close contacts until positive result is obtained from a suspected case'. Since the test process is long (it could be as long as a week at that time) the disease spread faster than predicted especially in İstanbul and filiation could not be made in time and in an effective way.
- As far as diagnostic test strategy is concerned Turkey is classified as a country where tests are applied to 'cases with symptoms' and the number of tests per 1000 people is lower than in some European countries. In spite of elapse of two months and insistent calls made by the Turkish Medical Association, Ministry of Health took no initiative to apply test to risk groups including health workers who perform their compulsory functions during the pandemic (i.e., besides health workers, waste collectors of municipalities, security forces, people working in food marketing, those active in market places, etc.).
- In case management, the Science Board Guide is taken as basis which is updated in specific intervals. In the original version of the guide, issues covered include clinic information about the disease, case tracing algorithm, specimen taking, storing and transfer, contact tracing, infection control, isolation, patient care and treatment and rules that must be observed by those going to countries where cases are observed. The guide was updated on January 30, February 25, March 11, April 2, April 12 and April

14. In these updates there were additions and changes in many headings and algorithms were introduced. It is reflected in WHO reports that Turkey used a COVID-19 definition without any reference to WHO or ECDC definitions.

- Decisions taken by the Science Board during the pandemic were not made public. An interesting point about the composition of the board is that there was only one public health specialist in the board for a long period of time. It was only in early April that the number of scientists from the field of public health could be increased. Since this discipline is one of the pillars of outbreak management it can be considered as a shortcoming affecting the field dimension of combat against the disease.
- There is no detailed information whether measures taken as a part of transmission prevention efforts actually aims to reach a systematic structure and data is not available to assess the effectiveness of this system. The test strategy pursued has been a factor affecting the assessment of activities launched to prevent transmission (the existence of only one authorized laboratory for a long time, no information about the effectiveness of the test method used, the number of persons tasted, their status – patient, contact, etc.).
- It is not known whether there is an assessment system used to check the effectiveness of control measures. For contact tracing, quarantine practices, filiation and surveillance there is no assessment based on epidemiological data.
- The limited number of provinces and centres that can apply tests during the early phase of the outbreak appears to be an important factor determining the testing strategy. While there was only a single centre at the beginning, then there were two provinces and 37 centres in 23 provinces as of March 25th.
- It is also a significant problem that the first guide released by the Ministry in January gave no reference to any medical school hospital except its Medical Sciences University. Yet there are many well established medical schools in the country working on viruses for many years with their qualified staff and equipment. It is a query that the Ministry did not authorize these faculties for PCR test for a long time and designate as reference hospitals as if trying to keep them out of combat against the pandemic.
- Data and information needed for epidemiological assessment of the outbreak were not shared from the very beginning. It is a serious gap in making a thorough analysis of the situation.
- Within a week following the first confirmed case the number of cases climbed from 98 to 191, which was described as "local circulation" and recorded as such by the WHO. "Wide circulation of the virus" within a week suggests that its entry to the country was earlier than the first confirmed case and that the outbreak had multiple origins. Turkey was late in the identification (and announcement) of existing cases.
- In relation to data sharing and statistics there is lack of a communication strategy to remove some question marks about the outbreak.
- Death registers are not reorganized in line with WHO recommendations. Although the TMA and specialty societies like Turkish Thorax Association and Public Health Specialists Association brought up suggestions by sharing comprehensive data and documents these were not considered.
- Withholding of data and problems related to registries clearly show that the Ministry of Health is not transparent.
- No mechanism was introduced for community participation which suggests that participation is neglected. It is a shortcoming that no mechanism exists for possible contributions of professional organizations and specialty associations. In the National Pandemic Plan too participation is limited to invitation to some commissions "when

necessary" and "voluntary support". This situation suggests that the contribution of professional organization is wanted to remain as limited. In practice, participation by professional organizations is practically absent. Moreover, all questions forwarded by the TMA to the Ministry and/or Minister received no response.

- There is serious increase in cases of infection among health workers. As is the case with many others, there is no regular information supply on this matter too. The number of health workers with positive PCR test which was 601 on April 1 increased twelve times and reached 7,428 on April 29. While the WHO continuously stresses the need for "special surveillance system for health workers" in health facilities there is yet no initiative to this end.
- Especially early in the pandemic there was shortage of personal protective equipment in health facilities. This situation suggesting the reflection of some other problems in the country as well as not phasing-in of the pandemic preparedness plan increased risks faced by health workers and caused flaws in the implementation of the combat strategy. The outcomes of TMA's "Risk Assessment for Health Workers Exposure to the COVID-19 Virus" were shared with the public on March 24. Of 1,820 health workers from 74 provinces, 48 per cent said there is no separate triage space for COVID-19 in their facility, 44 per cent said there is no training on how to protect from infection, and 53 per cent said they are not informed about changes in their work organization in the context of COVID-19 (TMA web page). These facts about the period of preparation clearly show problems faced in health facilities.

- World Health Organization states that the average period of incubation in COVID-19 is 5-6 days, but it may be longer up to 14 days. During this time period also known as "presymptomatic period" persons may transmit the virus. In classic filiation practice, it is required to identify the day when symptoms started, go back as long as the longest period of incubation, and investigate with whom, where and how infected persons have had contacts within this period. This will make it possible to determine who were infected when, where and how and who else may get the infection at present and in near future. The Ministry of Health, on the other hand, asks a suspected case his or her contacts for the last 24 hours and takes that persons communication information. The guide is not followed in a standard and uniform manner in all places which makes the search and tracing of contacts too difficult.
- Health workers take part in filiation teams set up by Provincial Health Directorates that implement filiation, question contacts and conduct first interviews. The composition of these filiation teams under provincial directorates may vary by provinces. There may be health officials, dentists, practising doctors and others working in these teams. Besides their heterogeneous composition, there are some other problems with the working of these teams including the following: Their job description is not clear and detailed as in the case of treatment protocols in hospitals; team members are not adequately informed about the purpose and ways of filiation; absence of earlier preparation; quick and centrally launched interventions not allowing for the consideration of local circumstances; belated consideration of feedback; and large differences among provinces and districts with respect to means of communication, information, skills and equipment.
- Home-based follow-up of patients by family physicians is made by phone. This work too is not based on a standard guide. Further, this follow-up is based solely on the statement of the patient concerned. No control can be exerted since patient's staying at home depends on his/her wish. The way of follow-up may vary by provinces, districts and even by neighbourhoods.

- There are many public health specialists in different units of the province level organization of the Ministry of Health. Expected to be the most active ones in combat work given their specialty, these persons cannot undertake active duties which weakens fieldwork.
- There are some problems related to the use of diagnostic radiology in the assessment and comparison of suspected cases. Some information included in the "COVID-19 Guide" dated 14 April 2020 on the use of radiology in approaching suspected cases are not in compliance with international experience and literature. The Central Council of TMA sent a note to the Ministry of Health on 4 May 2020 after taking the opinions of the Turkish Radiology Association and Turkish Thorax Association. In this note it is stated that the suggested application of both chest radiography and computer tomography to each suspected COVID-19 case, as stated in the guide, is without scientific basis and related algorithm in the guide should therefore be revised.
- There is no information given about the epidemiological characteristics (i.e. sensitivity, specificity) of tests applied by the Ministry of Health. However, it is a point of discussion that there are many patients with negative PCR results despite the presence of COVID-19 and CT indications. According to the statement made by the President of Ege University on April 28, of 4,865 persons applying to their pandemic outpatient clinic and emergency unit 1,796 were taken in with COVID-19 diagnosis/pre-diagnosis, but only 461 of these patients (25.7%) turned out to be positive in PCR test.
- Diagnosis is important in all diseases; but methods of diagnosis and their accessibility become even more important for a newly emerging disease. For COVID-19 diagnosis in Turkey, the General Directorate of Public Health Microbiology Reference Laboratory in Ankara remained as the single authorized laboratory for a long time. During this period, specimen from suspected cases was sent to Ankara. As cases of infection were spreading in the world without the first confirmed case in Turkey, the TMA drew attention to this issue and suggested increase and dissemination of diagnostic facilities. At present there are 114 authorized laboratories (Ministry of Health, 2020). However, no information is given to the public concerning the standardization of these tests. Neither is there any available information about the daily number of specimen worked on and the rate of results that are positive.
- Turkey is behind many countries in terms of the number of tests per unit of population. Further, as the second month of the pandemic is about to close, presently only the total number of tests is declared without any information about the number of tested persons and their characteristics (i.e. patient, contact, etc.).

As the second month in the pandemic was closing the outbreak still continued despite a falling trend in the COVID-19 curve and upon steps like re-opening of shopping malls under the label "normalization" in May the TMA made a statement on how discussions on the "reopening' schedule should go on. In this statement the TMA stressed the need to take relevant steps in the light of the science of epidemiology and to give priority to the protection of people and health workers.

As of May, decisions on the COVID-19 outbreak must be taken free from market pressures, on the basis of epidemiological data and in a coherent and coordinated way. People's democratic participation and an environment of trust-building transparency are of critical value in such processes. The numbers related to daily cases of infection, tests applied relative to population, patients under treatment with COVID-19 diagnosis independent of PCR test and cases of mortality unfortunately suggest no definitive indication as to the end or near future ending of the outbreak. The decline in declared figures is pleasing and promising. Still,

painful experience of many countries has shown that the COVID-19 outbreak is not an issue for some risky trials and there is no room for complacency without defeating its spread and fatal consequences. There are lessons to take from Japan and Singapore, referred to as successful countries in combating the outbreak, with problems they experienced as they loosened their earlier measures.

As physicians and health workers we are aware that there is still some way to go with epidemiological work in living and working environments including filiation and surveillance, efforts to stop the outbreak and treat its patients. We want to remind all citizens that it is their duty to comply with measures designed to prevent transmission including physical distance, strict hygiene and use of masks.

Even with descending curve in the number of patients there is still the possibility of a new upsurge as happened in some countries earlier. Given this, there must be no shortage and loosening in terms of personal protective equipment (PPE) in all public and private hospitals, family health centres and in all units extending health services. Considering the nature of the COVID-19 agent, required standards in PPE (masks, shields, glasses, gowns, etc.) are as important as their availability. It is essential that the Ministry of Health considers complaints coming in this respect and impose deterring sanctions upon those letting out-of-standard and low quality PPE used.

As we kept saying from the very first day, although important duties fall upon doctors and health workers and each citizen has his/her duties in combating the outbreak, the primary responsibility rests with the Ministry of Health having all related data and the Government with the authority and power to take any necessary decision.

Consequently, we insistently remind that these decisions should not be taken under the influence of populism, be human-focused without any distinction and include steps to respond to social and economic needs of all citizens in line with the concept of social state. At any stage in the COVID-19 outbreak, success depends upon work in the light of scientific evidence, dedicated efforts of doctors and health workers and community participation!