

# ASPECTS REGARDING THE REOPENING OF SCHOOLS IN THE CONTEXT OF THE COVID19 PANDEMIC

*Dr. Gabriela Brişan,  
Medical school office, Cluj-Napoca*

## ABSTRACT

2020 has faced society with the largest crisis of the 21st century: the SARS-CoV-2 pandemic. As we have seen the virus unravel over the past few months, governments across the world have taken various measures to slow the spread of the disease until a vaccine or treatment is found. An example is the suspending of face to face teaching.

In this review, we analyse the disruption caused by Covid-19 to the current academic year and what guidelines key international players suggest for the re-opening of educational institutions. We show that studies across the globe have concluded that missing school has a great impact for pupils, and that their welfare, mental and physical health are put in grave danger by the economic and social side effects of the pandemic, with pupils from underprivileged backgrounds being hit the hardest.

We find that guidelines on school re-openings follow two major paths: one where schools re-open using a hybrid model and one where schools open fully but with restrictions. The hybrid model appears when there is a mix of students returning to the classrooms and staying at home. The full return is adorned with very strict procedures around hygiene and contact tracing for confirmed cases of Covid-19 within the institution. Key takeaways include regular airing of classrooms, washing hands for longer and more frequently, social distancing, and wearing masks.

All key players recommend contact tracing for confirmed cases as a method of containing local outbreaks within schools.

**KEY-WORDS:** reopening of schools, COVID-19

## INTRODUCTION

The beginning of 2020 faced humanity with an unpleasant surprise. In January a new strain of coronavirus was first identified in Wuhan, Hubei, China, by studying a cluster of acute respiratory illnesses, with unknown etiology, identified in December 2019 in the specified location. The new strain of coronavirus was named SARS-CoV-2, and the disease caused by it COVID-19 [1].

Globalization, the lack of synchronization of international reaction mechanisms, insufficient knowledge of the etiopathogenesis and epidemiology of this new infection in the first months after its onset, have made the spread of the epidemic unstoppable. Deeply concerned about the alarming spreading levels and severity, as well as of the lack of reactions of the affected countries, on March 11<sup>th</sup> 2020, the WHO declared COVID-19 a pandemic. [2]

From that moment until the third decade of August 2020, globally, 23,605,000 people were infected with the new coronavirus, and of these, 812,657 died [3].

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\* **Correspondent author:** Gabriela Brişan, medic primar MF, DASM Cluj Napoca, Dispensar Şcolar IX, e-mail: gabi\_brisan@yahoo.com

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This dynamic of figures shows the particularly strong impact that the pandemic has on today's society, with multiple consequences: medical, social, economic, political, cultural, demographic, etc.

Each of the 215 countries in which there have been identified COVID-19 cases since the declaration of the pandemic [3] has implemented measures to limit the spread of the infection in the population, in order to gain more time until a specific treatment or effective vaccine is found. These measures included, with varying duration and extension from country to country: closure of schools and universities, closure of hotels and restaurants, closure of parks, cancellation of flights and public and sports events, the obligation to wear a face mask in indoor / open spaces, quarantine, triage at borders or at the entrance in public spaces, limitation of travel outside the essential purposes, teleworking, etc. In this context, it is undeniable that the lives of millions of people have been affected, in one way or another, by the SARS-CoV-2 pandemic.

However, in the immediate future a new challenge arises, namely the preparation of the way in which the activity will be initiated and carried out in the new school year.

In this context, this article aims:

a) to highlight the main aspects related to the way in which the SARS-CoV-2 pandemic disrupted the normal course of the 2019/2020 school year and the immediate consequences of this situation,

b) to present the preparations that the authorities from different countries are making in order to start the 2020/2021 school year, in maximum safety conditions for students, parents and teachers.

A brief analysis of the international situation highlights the fact that in 186 of the countries affected by the pandemic, in order to limit the transmission of infection among the children, young people and their families, kindergartens and schools have been closed since the first cases of disease were identified in those populations. This measure targeted 1.5 billion children and young people, representing 89% of their total globally [4].

To continue the educational process, the solution used in most countries affected by the pandemic was online education. Although a welcome method for many students, teachers and parents, it required financial and logistical resources inaccessible to some

at the time, leading to inequities in the system, both among students and teachers [5]. In addition, according to journalist Andreas Kluth, quoted by Bloomberg, teachers were in turn exposed to the stress caused by another style of teaching, online, unknown for many of them or impossible to achieve due to material deficiencies [8].

As the closure of schools proved to be a measure that extended over several months, this being imposed by the difficult to control evolution of the pandemic, studies were initiated to ascertain the consequences, social or medical, of this situation.

A concise expression in this regard is given by researchers in the UK, who state that [6]: "lack of school increases inequalities, reduces children's chances in life and could aggravate physical and mental health problems. School improves health, learning, socialization and lifelong opportunities, including employment. It has not been possible to reduce societal inequalities just by providing home education. Attending school is very important for children and young people."

This conclusion is also supported by other reports and / or personalities. Thus, the report "The Impact of COVID-19 on Children in Europe" [7], prepared by Save the Children International, refers to the unprecedented consequences of the pandemic on the education and safety of children, analyzing the situation in 11 countries: Romania, Sweden, Italy, Spain, the Netherlands, Finland, Germany, Norway, Albania, Bosnia and Herzegovina and Kosovo. The report concludes that, regardless of the country, the poorest children are the ones who suffer the most. Schools are primarily a learning space for children, but they are also safe places where they can receive food, have access to protection and counselling services, and play with friends. Teachers can be for them the people they can turn to first when they need help and who can protect them. However, with the closure of schools, children no longer have these important elements that the school environment can offer. According to journalist Andreas Kluth [8], parents from disadvantaged backgrounds cannot materially support their children, and those who cannot provide teleworking cannot supervise them sufficiently, with detrimental consequences for their education.

Referring to the medical consequences of closing the schools, Associate Professor Dr. Mihai Craiu, states [9]: “School is definitely necessary. To all the children. Not only from an academic point of view but also from an emotional and general health point of view. It is proven that lack of school directly affects health, by increasing sedentary lifestyle and body weight, by increasing inattention and reducing patience, by increasing the degree of violence, by increasing the time of daily exposure to screens (with all the procession of effects on the eyes , sleep time and feeding pattern) “.

The complexity of the problem has led reputable entities to become involved in the development of observations and recommendations useful in making decisions related to the resumption of the school year.

Thus, the WHO states that the decision to close or reopen schools must be guided by risk management, in order to maximize the well-being and health benefits of students, teachers and support staff.

The elements that must be evaluated in order to make a correct decision to open / close a school are [16]:

1. the risk / benefit ratio in the light of local developments in the number of COVID-19 cases;
2. assessment of the rapid response capacity of local authorities;
3. the existence / level of collaboration between schools and local public health authorities.

Thus, the proposed prevention and control measures are:

- a) elaboration of policies and protocols in order to ensure human resources and infrastructure;
- b) assessment of students’ ability to understand the requirements of distancing and wearing a mask;
- c) ensuring security and safety for those with vulnerabilities that may require special attention;
- d) strict application of hand hygiene and space cleaning measures;
- e) “STAY HOME IF YOU ARE SICK”, and medical triage when entering the school;
- f) ensuring optimal communication with parents;
- g) ensuring the continuity of meal services, psychosocial support;
- h) maintaining the distance of at least 1 meter;

i) the possibility of distance teaching through radio-TV shows;

j) ensuring the natural ventilation of the spaces and where this is not possible, the correct maintenance of the installations destined for this purpose

UNESCO presents the “Plan for school reopening”. It recommends [10] that an initial financial assessment of the consequences of the pandemic on the national budget and the necessary infrastructure be made, in order to establish the conditions for safe reopening, and, where appropriate, to initiate renovation and modification work on buildings. In terms of human resources, UNESCO recommends ensuring the appropriate number of teachers, training them in order to observe and quickly identify children with health problems. The importance of communication, consultation and coordination between schools and public health authorities is also emphasized.

The CDC (Centers for Disease Control and Prevention) also presents [11] a detailed guide for reopening the schools in the United States of America, a country deeply affected by the pandemic. According to the guide, the least risk is to carry out all activities online; some risk involves the hybrid scenario, according to which some students watch online and others physically participate in classes, in small groups, with a rigorously staggered schedule, without students or teachers from different groups interfering or sharing objects, respecting strict separation and hand hygiene, wearing face masks and strict disinfection and cleaning measures in the spaces used. Any increase in the number of groups of students physically present in class or the relaxation of the measures mentioned above leads to an increase of the risk of illness. The measures provided for in the guide for preventing the transmission and infection with SARS-CoV-2 start from the fact that the disease can be transmitted during speech, coughing or sneezing, through virus-carrying drops, or through the hands or from contaminated surfaces. It also underlines the idea that any student or staff member can get sick at some point and the school must be prepared for any situation. The guide insists on:

1. promoting behaviours that reduce the spread of the disease: isolation at home in case of illness (with clear details of the criteria necessary for returning in the community for those who were symptomatic, for

asymptomatic positives, immunocompromised or in contact), hand hygiene and compliance with respiratory etiquette, wearing a facial mask (especially when the physical distance cannot be kept), the school providing the necessary soap, disinfectant, paper towels, disinfectant wipes, masks, garbage containers, posters with educational information;

2. maintaining a healthy environment by cleaning and disinfecting, discouraging the sharing of objects, proper ventilation of the rooms, changing the arrangement of the benches (all facing in the same direction), raising physical barriers and applying markings in the corridors to obtain "One way route", the closure of dining rooms and playgrounds with common equipment or the phasing of their use, in conditions of strict cleaning and disinfection;

3. maintaining health by protecting children and staff at risk (through virtual learning, teleworking), cancelling meetings, trips, limiting the mixing of groups of students, staggered arrivals and departures, designating a person responsible for maintaining the link between school and parents on the COVID issue, establishing a clear chain of communication in connection with possible cases, providing backup staff, training for staff to recognize signs and symptoms, providing psychological support for students and staff

4. preparations for possible illness cases by communicating to parents the criteria for home isolation, isolation and home transport of those who become symptomatic during the program, closing the space used by the symptomatic children or teachers and applying cleaning and disinfection procedures AFTER 24 hours, notifying the public health authority while respecting confidentiality.

To sum it up, contemporary society is in a situation where it has to weigh wisely, in pandemic conditions, the risks and benefits of reopening schools. The precise way of preparing for the reopening of schools differs from country to country, depending on the specific local or regional conditions, but some common problems can be highlighted in these policies:

1. the health risk of returning to classes is evaluated, by age groups: preschoolers, primary, secondary and high school students, taking into account the staff involved (teachers, auxiliary and care staff).

2. the necessary financial and logistical resources are evaluated in order to conduct the classes in safe conditions.

3. the precise stages of the development of the activities in the school are identified, from the students' arrival until their departure, establishing clear rules for each of them.

4. concrete rules are established for maintaining a healthy environment in schools, including from cleaning and disinfection to altering spaces, physical barriers, marking spaces, etc.

5. establish concrete rules for maintaining the health of students and staff, from dividing into groups to ensure distance, identification of students and people with pre-existing pathologies that have an increased risk of COVID 19, epidemiological triage with recognition of signs and symptoms of infection with SARS-CoV-2.

6. concrete response plans shall be established in the event of an outbreak of an infection in the community, in order to limit its spread and, to the same extent, to provide prompt and quality assistance to the person concerned and his/her close contacts.

7. the manner of communication with the local public health authorities and with the parents shall be established and the persons responsible for this shall be designated.

8. the conditions under which it is necessary to close the school and then to resume the courses are clearly outlined.

Different countries have their own approaches to the reopening of schools, an important factor being the evolution of the pandemic on their territory.

Thus, in France, according to [12], the school will start for all students on September 1<sup>st</sup>, respecting the following principles: application of barrier gestures, wearing a face mask by adults and all students over 11 years, observance of hand hygiene and proper air ventilation in educational spaces. It is considered that the parents of the students have an essential role, they must commit themselves not to send to school children who have a fever above 38 degrees C or show eloquent symptoms for COVID-19. Barrier gestures consist of washing hands with soap and water for 30 seconds or with hydro-alcoholic solution, on arrival at school, before and after each meal, before and after the break, after using the toilet and before leaving

school. The mask must be worn by staff who cannot follow a distance of 1 meter from other persons, but is not compulsory during class teaching, when the distance of at least 1 meter from students is maintained; elementary school students are not recommended to wear a mask but masks must be available for the potentially symptomatic children; high school students are required to wear a mask while walking in the school's building; students with pre-existing pathology should have a recommendation from the specialist regarding the wearing of the mask. Ventilation of the rooms must be done frequently, at least 15 minutes every 3 hours and in all rooms. Limiting student interference is important for limiting virus circulation; depending on their size, schools must organize the daily program in a manner to avoid intersecting students, by staggering arrival and departure, limiting, organizing and marking corridors for traffic in buildings, organizing breaks by groups of classes and organizing dining in the spaces intended for this, respecting the physical distancing. Cleaning and disinfection of floors and large areas will be done at least once a day, frequently touched surfaces at least once a day, the tables in the dining room after each use, while common objects are either isolated 24 hours before use or cleaned once a day. Parents must be clearly informed about the operating conditions of the school, about their role in educating children in respecting barrier gestures. Parents also monitor the child before leaving for school and are informed about the procedure that applies if the child becomes symptomatic at school, they are told the phone number of the school medical office. They also need to know exactly where they can drop off the child at the beginning of the program and from where to pick up the child at the end of the program. Students, in turn, should be given practical information about barrier gestures appropriate to their age.

A special section is reserved for the situation that involves the appearance of symptoms in a person during classes. Thus, if that person is a student, he/she will be isolated immediately, with a mask on, at the infirmary or in the isolator room, with strict observance of the barrier gestures; the school doctor will be contacted, the parents or guardians will be notified, reminding them that they must follow the procedures: to avoid other contacts, to notify the child's doctor; after the symptomatic student leaves, the isolator is

thoroughly cleaned, after a waiting time of several hours. If the symptomatic student's SARS-CoV-2 test comes back positive, the parents must inform the school at once. The family is advised in assessing the risk and finding the right isolation strategy; the need for quarantine, the closure of the whole school, of the floor or of only one classroom by the academic authority is assessed; all the locations frequented by the patient in the school are cleaned and disinfected 48 hours before isolation and the contacts are informed, according to the communication plan defined by the unit.

If the symptomatic person is an adult, he/she is immediately isolated, with a mask on, if he cannot go home, avoiding all contacts with other people, and the doctor's opinion is requested, who will request the testing. If the test is positive, the school shall be informed, the risk of intra-community transmission shall be assessed, with the identification of contacts and the opportunity for quarantine or closure of the school shall be assessed. All cleaning and disinfection procedures shall be applied, as above.

Germany, a federal state, has adopted measures common to the 16 states but also has regulations at the level of each state regarding the resumption of school. Course resumption dates are different for each state. The common measures taken are those aimed at ventilating the rooms, excluding students with COVID-19 specific symptoms and free testing of staff. Students must respect social distance and wear masks in common areas [13]. In the state of Baden-Württemberg, for example, it is recommended that learning groups be as constant as possible, including transport to and from school, it is forbidden to sing indoors, including with wind instruments, wearing a mask is mandatory for children over 6 years, a distance of at least 1.5 meters must be kept between students. Also, exiting the classrooms during breaks is done in stages, respecting the distance. Those with respiratory infections, contacts of COVID-19 cases, those with fever, taste and smell disorders are not allowed to enter schools [14]. In recent weeks, the number of infections has increased in Germany (over 500 a day) – experts estimate that this is the second wave of the pandemic, so many fear that the resumption of activity could be only temporary. However, officials warn that students cannot miss classes again [15].

In the UK, both common recommendations and specific guides for England, Scotland, Wales and Northern Ireland have been published.

In England, WHO IS SICK STAYS AT HOME. Those who go to school must strictly observe cleanliness and hygiene. Close collaboration with the NHS (National Health Service) is recommended for “test and trace”, where appropriate. It is also recommended to form groups or “bubbles” that do not interact with each other, classrooms to arrange with forward-facing benches, staff to strictly keep their distance and to implement control systems and protection measures. In response to possible infection cases, it is recommended to contact the public health authority and follow its recommendations, isolate the symptomatic person and if there is no space in this regard, the persons assisting should try to keep a distance of at least 2 meters and wear PPE. Other recommendations consist of staggering arrivals and departures, avoiding congestion in the corridors, longer lunch breaks allowing cleaning, registration of all visitors and cleaning of common objects 48-72 hours after their use. Regarding the confirmed cases, the epidemiological investigation shall be done and close contacts are to be isolated for 14 days. If more than 2 cases occur in 14 days, quarantine is instituted.

In Scotland a hybrid scenario is proposed, on-line and physical presence, with the recommendation of increasing separation and decreasing interaction

between children, and protecting people at high risk. Each school can decide to use geodesic domes or mobile shelters, as well as the use of outdoor spaces. For the boarding schools it is recommended to organize students in small groups, assimilated to families.

### **In conclusion:**

1. The COVID-19 pandemic profoundly affects the functioning of contemporary society.
2. The school-age population suffers due to the interruption of the normal course of the school year, with multiple consequences, in the short, medium and long term.
3. There is a global consensus on the need to continue the educational process.
4. In all the plans of general measures enunciated for the reopening of schools, regardless of the country, there are found, as a leitmotif: hand hygiene, wearing a mask and social distancing.
5. School reopening policies are customized for each country, adapted to the situation of each, but they have in common the fact that the health of students and teachers comes to the fore.
6. The pandemic is constantly evolving and countries have developed response scenarios, including the start of the new school year, to allow them to choose the optimal solutions, until a specific vaccine or treatment is obtained.

**BIBLIOGRAFIE**

1. WHO Statement Regarding Cluster of Pneumonia Cases in Wuhan, China].
2. WHO Director-General's opening remarks at the media briefing on COVID-19 – 11 March 2020
3. <https://www.worldometers.info/coronavirus/>
4. <https://time.com/5868098/schools-reopening-coronavirus-denmark-south-korea-israel/>
5. <https://www.zf.ro/eveniment/efectele-negative-ale-inchiderii-scolilor-elevii-nu-au-echipamentele-19104677>
6. <https://www.bloombergquint.com/opinion/coronavirus-school-closures-will-hurt-kids-and-worsen-inequality>
7. <https://www.gov.uk/government/news/statement-from-the-uk-chief-medical-officers-on-schools-and-childcare-reopening?fbclid=IwAR3ds72q2dEkPu1NqhLlJOW68vSx3l-8drUmdi5LHyhNaCAA4H49HHThlqJY>
8. <https://www.bursa.ro/studiu-elevii-sufera-de-plictiseala-tristete-si-oboseala-din-cauza-inchiderii-scolilor-05001040>
9. [https://www.facebook.com/groups/1553044751693094/?post\\_id=2514188775578682](https://www.facebook.com/groups/1553044751693094/?post_id=2514188775578682)
10. <http://www.iiep.unesco.org/en/plan-school-reopening>
11. <https://www.cdc.gov/coronavirus/2019-ncov/community/schools-childcare/schools.html>
12. <https://www.education.gouv.fr/rentree-2020-modalites-pratiques-305467>
13. <https://www.hotnews.ro/stiri-educatie-24249162-redeschiderea-scolilor.htm>
14. <https://km-bw.de/Coronavirus>
15. <https://www.euractiv.ro/extern/germania-redeschide-scolile-pe-fondul-celui-de-al-doilea-val-al-pandemiei-20285>
16. <https://www.who.int/news-room/q-a-detail/q-a-schools-and-covid-19>