

*Presidenza del Consiglio dei Ministri*



**COVID-19 AND CHILDREN:  
FROM BIRTH TO SCHOOL AGE**

**23 October 2020**

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## Presentation

The Italian Committee for Bioethics (ICB) highlights the specific repercussions induced by the pandemic on the global health of children and on the main underlying bioethical aspects, with specific attention from the very first existing correlations in the maternal-fetal-neonatal unit, up to the early stages of development such as infancy and childhood.

In the context of pregnancy, childbirth and neonatal life, precaution and responsibility are indicated as the essential bioethical principles of the "care relationship" for people who need specific protection. The analysis on the condition of children in preschool and school age is in-depth in terms of health aspects, paying particular attention to the fragility of children with chronic diseases, disabilities, rare diseases and the discontinuity of care. The psychological and social consequences of the *lockdown* are taken into consideration, paying specific attention to social hardship and economic-social-cultural inequalities. The opinion specifically addresses the consequences of the closure of schools, the problems related to the reopening of schools and distance learning, highlighting the opportunities and criticalities (in particular the burden on daily life for families and the digital divide, i.e. the gap between those who have effective access to information technologies and those who are partially or totally excluded).

The Committee, in the context of the indissoluble interweaving of political, economic, social, clinical and health problems in this area, recalls the need for a framing of the problems within the bioethical perspective of precaution, prudence and responsibility in the commitment to protect above all those who are in situations of specific and temporary vulnerability. The Committee recognises the interests of the minor as a fundamental ethical-legal criterion for evaluating the benefit-risk ratio of the pandemic containment measures and identifies the centrality of school as a part of the personal and social development of children. It also points out the need to promote multidisciplinary research on the bio-psycho-social determinants of child health within the context of the Covid-19 pandemic, which can form the basis of the interdisciplinary guidelines for mitigating the negative effects and overcoming the problematical issues that have arisen in terms of health and on the psychological and social level.

The Committee recommends specific care and psychological support for the most vulnerable children with disabilities or those from difficult family situations, who have suffered most from the effects of the pandemic and the closure of educational services; the promotion of education directed to personal and public responsibility for health, both within the school curricular process as well as through extracurricular training initiatives with the involvement of family members and school staff.

The opinion was drawn up by Professors: Lorenzo d'Avack, Mario De Curtis, Giampaolo Donzelli, Lucio Romano, Grazia Zuffa, with contributions from Professors: Stefano Canestrari, Anna Gensabella, Laura Palazzani.

The precious hearing, on 25 September 2020, with Prof. Alberto Villani, President of the Italian Society of Pediatrics and member of the Scientific Technical Committee (CTS)- Covid 19, also contributed to elaboration of the text.

The opinion was voted, unanimously by those present, by Profs: Salvatore Amato, Luisella Battaglia, Stefano Canestrari, Cinzia Caporale, Carlo Casonato, Francesco D'Agostino, Bruno Dallapiccola, Antonio Da Re, Lorenzo d'Avack,

Mario De Curtis, Riccardo Di Segni, Giampaolo Donzelli, Silvio Garattini, Mariapia Garavaglia, Marianna Gensabella, Assunta Morresi, Laura Palazzani, Tamar Pitch, Lucio Romano, Monica Toraldo di Francia, Grazia Zuffa.

Those absent from the session, Profs: Carlo Caltagirone (present at the plenary, but absent at the time of the vote), Maurizio Mori, Massimo Sargiacomo, Luca Savarino, Lucetta Scaraffia subsequently expressed their support for the opinion.

Despite their not having the right to vote assent was given by: Dr. Maurizio Benato, the delegate for the President of the National Federation of MDs and Dentists Colleges; Dr. Amedeo Cesta, the delegate for the President of the National Research Council; Prof. Paola Di Giulio, the delegate for the President of the Superior Health Council; Prof. Carlo Petrini, the delegate for the President of the National Institute of Health.

Dr. Carla Bernasconi, the delegate for the President of the National Federation of the Orders of Italian Veterinarians, absent from the session, subsequently assented.

## 1. Introduction

The Italian Committee for Bioethics (ICB), in previous Opinions, has already intended to offer some reflections on certain complex and problematic questions, from a bioethical point of view, raised by the COVID-19 pandemic. In particular, on *Covid 19: clinical decision-making in conditions of resource shortage and the "pandemic emergency triage" criterion* and *Covid-19: public health, individual freedom, social solidarity*.

The pandemic, with its rapid and dramatic spread, requires recourse to measures in order to safeguard the health of each individual citizen and the interests of the community; it further emphasises vulnerabilities already present; it engages everyone, committing each individual to their own responsibilities, in contrasting a new virus that is hidden among our human relationships; it requires necessary physical distancing and the rigorous use of procedures to prevent its spread; it has created insecurity and accentuated loneliness.

And yet, this pandemic calls for even more responsibility towards the common good, understood as taking charge of the other and each other even more in this vulnerability: basic paradigms that are able to guarantee every right with a duty, according to "shared responsibility". The measures adopted to combat the pandemic should be understood in this perspective, even if they have a serious impact on social and economic life but they are limited within a defined period of time.

In this context, the Italian Committee for Bioethics continues a process of reflection, in particular on *Covid-19 and children: from birth to school age* for the specific repercussions induced by the pandemic on the global health of children and on the main underlying bioethical aspects, paying specific attention already from the very first correlations given by the maternal-fetal-neonatal unit up to the first stages of development such as infancy and childhood.<sup>1</sup> Among other things, the critical issues, certainly not secondary, inherent in children with chronic diseases or disabilities who, due to the reorganization of health services induced by the spread of the pandemic, cannot benefit from adequate care bring about a foreseeable worsening of clinical conditions.

There are several aspects worthy of attention in the report on Covid-19 pandemic and children. The ICB does not consider it appropriate to analyze all the conditions that in the current pandemic negatively affect the mental, physical and social health of the child as it would fall outside the scope of this Opinion. There are identified here the most important conditions involving children affected by medically significant pathologies including psycho-social disorders, which can be summarized as "social-health fragility", paradigmatic of the scenario in which children "impeded" by the Coronavirus find themselves. There are several implications, not only of a bioethical nature, that the Opinion addresses without any claim to being exhaustive, also considering the progressive evolution of studies and research.

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<sup>1</sup> According to the classification: early childhood (0-2 years), second childhood (2-6 years), childhood (6-10 years), pre-adolescence (10-14 years), adolescence (14-18 years).

## 2. Covid-19: pregnancy, childbirth and neonates

The Covid-19 pandemic marks a time of multiple questions and various critical issues also for pregnant women, with repercussions on the complex and peculiar maternal-fetal-neonatal psychophysical unit, particularly important for the neuropsychical development of the child and specific vulnerability regarding the possible consequences induced by the pandemic. Increased depression, anxiety, stress for the pregnant woman up to self and hetero-aggressive behaviours are recurrent in crisis situations as well as in extraordinary epidemic events. Another destabilizing factor is modification of the organizational models of the "childbirth pathway" – different even from territory to territory, from region to region - as necessary to care planning for containment of the infection.

Also regarding the relationship between Covid-19 and pregnancy, scientific knowledge is constantly evolving - as evidenced by accredited literature - with progressive clarifications in relation to how little or nothing that was known as little as a few months ago.

From the biomedical point of view, with the current state of knowledge, some essential considerations emerge: pregnant women, excluding cases with previous comorbidities, are not at higher risk of disease than non-pregnant women; so Covid-19 pneumonia in pregnant women presents characteristics similar to those of non-pregnant women<sup>2</sup>. Airborne transmission of Coronavirus infection from mother to newborn baby after birth has been documented and there are rare cases of vertical transmission (intrauterine life) from the infected mother to the fetus via the placenta.<sup>3</sup> Maternal mortality is significantly lower in confirmed cases of Covid-19 than that found in MERS-Cov (Middle East Respiratory Syndrome-Coronavirus) and SARS-Cov (Severe Acute Respiratory Syndrome-Coronavirus) infections. To date, there have been no cases of death involving pregnant women in Italy.<sup>4</sup> Breastfeeding, due to the well-known advantages of breast milk, should also be promoted and encouraged for women infected with Coronavirus, putting in place, however, all the necessary procedures designed to prevent transmission of the infection from the mother to the newborn baby and to the care staff. The mother's use of Personal Protective Equipment (PPE) according to the precautionary principle is essential.

Based on the organizational models of hospital-territory integration and related recommended indications, there must be emphasis on the need to always use the main classical standard precautions (physical distancing, hand hygiene, use of PPE) in order to prevent contagion. Thus triage admission provides for the pregnant woman to stay at her home making use of telephone consultations from the specialized health personnel to assess the appropriateness of further checks or hospitalization if necessary, always with the informed consent of the pregnant

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<sup>2</sup> G. A. RYEAN et al., *Clinical update on Covid-19 in pregnancy: a review article*, in "J. Obstet. Gynaecol. Res.", 2020 Aug 46(8): 1235-1245, doi: 10.1111/jog.14321.

<sup>3</sup> A. KOTLYAR et al., *Vertical Transmission of Coronavirus Disease 2019: a Systematic Review and Meta-Analysis*, in "J. Obstet. Gynecol. Res.", 2020 Jul 31: S0002-9378(20)30823-1, doi: 10.1016/j.ajog.2020.07.049.

<sup>4</sup> At present: there are insufficient data for a causal association with the underdevelopment of the fetus or to determine a correlation between preterm spontaneous birth and Covid-19 pregnancy infection; greater is the recourse to operative delivery with caesarean section for maternal respiratory insufficiency due to pneumonia, given that Covid-19 positivity alone does not in itself constitute an indication for caesarean section; no teratogenic effects from Covid-19 were detected.

woman. In particular, then, inside the health care facility itself, it is necessary, in order to prevent contagion, to have care pathways reserved only for pregnant women with suspected or confirmed Covid-19; physical distancing and limitation of accompanying persons; the availability of a multidisciplinary team; the possibility of the presence of a person chosen by the woman during labour, delivery and hospital stay, without prejudice to essential screening and monitoring in order to avoid contagions<sup>5</sup>. However, to be noted in the care, is the significant restriction with regard to the presence of another person during childbirth, as well as procedures that ensure effective strengthening of the mother-infant bond (*bonding*) such as skin contact (*skin to skin*) after birth and the practice of the child staying in the same room as the mother immediately after birth (*rooming in*).

As is well known, postpartum depression, anxiety and mood disorders can also occur during pregnancy with associated short and long-term risks on the cognitive and psychological development of children.<sup>6</sup> These disorders have a greater chance of incidence in conditions of extreme stress and in emergency situations, as evidenced in the Covid-19 pandemic, with consequences on perinatal well-being.<sup>7</sup>

Hence the need for a proactive, multidisciplinary and integrated approach to the health care services directed to pregnant women.

In order to try to provide adequate assistance during the pandemic emergency, and with a view to reducing the possibility of contagion, practical advice and recommendations have been developed.<sup>8</sup> Among these, there is the need to postpone routine prenatal or postnatal care visits to health facilities with the possibility of satisfying requests for advice and assistance – prenatal care, postnatal care and monitoring (*follow-up*) - via remote connection and with telemedicine<sup>9</sup> as well as updating the *preparedness* plans for birth and any complications.<sup>10</sup> This also means a necessary prior identification of the pregnant woman's psychological needs in order to ensure appropriate and timely support.

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<sup>5</sup> National Institute of Health (ISS) COVID-19 Report No. 45/2020, *Interim guidance on pregnancy, childbirth, breastfeeding and the care of infants (0-2 years) in response to the COVID-19 emergency*.

<sup>6</sup> Italian Committee for Bioethics (ICB), *Assistance to pregnant women and post-partum depression*, 16 December 2005; ICB, *Pregnancy and childbirth from the bioethical standpoint*, 17 April 1998; IBC, *Coming to life*, 15 December 1995.

<sup>7</sup> G. SACCONI et al., *Psychological Impact of Coronavirus Disease 2019 in Pregnant Women*, in "J. Obstet. Gynecol. Res.", 2020 Aug, 223(2):293-295, doi: 10.1016/j.ajog.2020.05.003.

<sup>8</sup> Centers for Disease Control and Prevention (CDC), *If you are pregnant, breastfeeding, or caring for young children*, <https://www.cdc.gov/coronavirus/2019-ncov/need-extra-precautions/pregnancy-breastfeeding.html>; Italian Society of Gynecology and Obstetrics (SIGO), Italian Association of Hospital Obstetricians Gynecologists (AOGOI), Association of Italian University Gynecologists (AGUI), National Federation of Orders for Obstetrician Profession (FNOPO), Italian Society of Neonatology (SIN), *Gravidanza e parto in epoca Covid-19: consigli pratici*, <http://www.fnopo.it/news/gravidanza-e-parto-in-epoca-covid-19--consigli-pratici.htm>.

<sup>9</sup> For the use of telemedicine in the pediatric field, see ISS COVID-19 Report No. 60/2020, *Indicazioni ad interim per servizi sanitari di telemedicina in pediatria durante e oltre la pandemia COVID-19*.

<sup>10</sup> World Health Organization (WHO), *Clinical management of COVID-19*. 27 May 2020, <https://apps.who.int/iris/handle/10665/332196>; International Federation of Gynecology and Obstetrics (FIGO), *Safe motherhood and COVID*, <https://www.figo.org/safe-motherhood-and-covid-19>; WHO, *Consolidated Guideline on Self-Care Interventions for Health: Sexual and Reproductive Health and Rights*, <https://www.who.int/reproductivehealth/publications/self-care-interventions/en/>.

It is clear that, if on the one hand public health measures are needed to mitigate the spread of the pandemic, on the other hand it is also necessary to prepare action strategies (*preparedness*) to assist, prevent or reduce adverse effects.<sup>11</sup> In this context, ensuring the maintenance of appropriate levels of essential services is required.

The uncertainties and negative forecasts on the economy, with their inevitable impact on the field of employment, increase the negative psychological burden on pregnant women and new mothers. Some studies also highlight the possible occurrence of the use of alcohol and drugs, and their serious repercussions on psychophysical health and social well-being; forms of abusive power and control by the partner; voluntary marginalization due to socio-economic deprivation; the reduced use of health and social services among low-income families and immigrant communities.<sup>12</sup>

In times of pandemics, therefore, greater commitment and responsibility is required to reconcile the right of individuals to health protection and the interests of the community, establishing welfare priorities, optimizing prevention and care services, preventing inequalities also induced by socio-economic deprivation.<sup>13</sup>

Precaution and responsibility can be referred to as the most important bioethical principles on which to draw upon for the protection of pregnant women and neonates, for the containment of the spread of the pandemic disease as well as for the necessary assistance and best care that can be achieved according to equality. It is a reference to principles that are essential in the "care relationship" for people who need specific protection in extremely critical conditions.<sup>14</sup>

The precautionary principle requires precautionary measures with a view to caution, in the face of the rapidity and unpredictability of viral transmission, to prevent or limit negative consequences pending the provision of systematic interventions given the limited knowledge on Covid-19. "The precautionary principle outlines the need for an attitude of caution intended as a preventive anticipation of the risk. [...] The precautionary principle therefore coincides in a broad sense with a prudent approach" which, however, does not mean

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<sup>11</sup> S. K. BROOKS et al., *The Psychological Impact of Quarantine and How to Reduce it: Rapid Review of the Evidence*, in "Lancet" 2020 Mar 14, 395(10227):912-920, doi: 10.1016/S0140-6736(20)30460-8.

<sup>12</sup> S. B. THAPA et al., *Maternal Mental Health in the Time of the COVID-19 Pandemic*, in "Gynecol. Scand.", 2020 Jul 99(7):817-818, doi: 10.1111/aogs.13894.

<sup>13</sup> Regarding this last aspect, despite the specificity of this Opinion connected to the effects of the Covid-19 pandemic, the relevancy of what has previously been reported by the ICB in the Motion on the inequalities in healthcare during and after childbirth is apparent: "unfair inequalities in medical assistance at birth in our country seriously undermine the respect for the principle of justice in one of its most important and vital expressions, namely the integration of two fundamental human rights, the right to equality and the right to healthcare, only achievable by means of an equitable distribution of healthcare resources. [...] Nevertheless, such a problem has implications involving a great degree of responsibility in the phase immediately following childbirth: the first moments of life are not only characterized by a particular vulnerability, but are also decisive, in either a positive or negative way, for the future of the person. [...] It is also necessary to stress both the importance of such prevention measures (a wise and fair health policy, Ed.) during the prenatal period and how the issue of inequalities at birth finds its premises in the care of women's health during pregnancy and very often even before this. There is a precise relationship between conditions of socio-cultural hardship and a higher risk of adverse consequences, which can affect the health conditions of both the mother and the fetus. ICB, *Inequalities in healthcare during and after childbirth: a national emergency* 29 May 2015.

<sup>14</sup> ICB, *Covid 19: clinical decision-making in conditions of resource shortage and the "pandemic emergency triage" criterion* 8 April 2020.

abstention.<sup>15</sup> However, *risk assessment* and *risk management* are inherent in the precautionary principle for the preparation, also on the ethical-political and social level, of measures necessary to prevent the spread of the pandemic and to the greater reduction of possible damage.

On a practical level, the application of the precautionary principle - as found in the protection of pregnant women and neonates - also legitimizes the prescription of limitations, within short time limits and aware of the potential consequences, in situations of catastrophic scenarios such as the most serious phases of the pandemic emergency.

The principle of responsibility, even in the light of risk prediction, involves taking charge of concretized fundamental duties and rights, both as regards the provision of care assigned to the National Health Service and the joint participation of the community, in "taking care" according to equity and reciprocity ("to be for"). That is to say, protecting, above all, those in situations of specific and temporary vulnerability, such as a pregnant woman. As required by the pandemic, joint responsibility opens to solidarity, even in constitutional terms (Article 2 of the Constitution).

It is from the careful combination of precaution and responsibility that the right balance between prevention and assistance can be ensured, even more specifically in a pandemic situation characterized by various uncertainties.

### **3. Covid-19 and preschool and school age children**

#### **3.1 Health aspects**

Both children and adults can become infected but children have milder symptoms and the disease is less severe.

A recent international review of the literature, which includes 45 scientific papers, has already shown that children are not immune, although they represent only 1-5% of diagnosed cases of coronavirus infection.<sup>16</sup> But this incidence rate is likely to be underestimated as most children are asymptomatic. The data observed in Italy are in line with the international research and in the same studies revealed that the disease is more severe in patients with pre-existing comorbidities.<sup>17</sup>

The World Health Organization (WHO) in the new guidelines, drawn up with Unicef, recommends that "masks should also be worn by children over the age of five when a distance of at least one meter from others cannot be guaranteed and there is widespread transmission."<sup>18</sup>

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<sup>15</sup> ICB, *The precautionary principle: bioethical philosophical and legal aspects*, 18 June 2004.

<sup>16</sup> J. F. LUDVIGSSON, *Systematic Review of COVID-19 in Children Shows Milder Cases and a Better Prognosis than Adults*, in "Acta Paediatr.", 2020 Jun, 109(6): 1088-1095, doi: 10.1111/apa.15270.

<sup>17</sup> In these studies it was found that 82% of patients had mild to moderate symptoms, and only 2-3% required admission to intensive care units See: I. LIGUORO et al., *SARS-COV-2 Infection in Children and Newborns: a Systematic Review*, in J. Pediatr., 2020 Jul, 179(7): 1029-1046, doi: 10.1007/s00431-020-03684-7; P. ZIMMERMANN, N. CURTIS, *COVID-19 in Children, Pregnancy and Neonates: a Review of Epidemiologic and Clinical Features*, in "Pediatr. Infect. Dis. J.", 2020 Jun 39(6): 469-477, doi: 10.1097/INF.0000000000002700.

<sup>18</sup> WHO, *Advice on the Use of Masks for Children in the Community in the Context of COVID-19*, [https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC\\_Masks-Children-2020.1](https://www.who.int/publications/i/item/WHO-2019-nCoV-IPC_Masks-Children-2020.1).

Studies show that even in asymptomatic infected children of all ages, high levels of the virus are found with a viral load that can be equal to that of an adult patient with Covid-19.<sup>19</sup>

The main health problems related to children are due to the fact that during the period of the lockdown, necessary to counter the spread of the infection, many and in particular those with chronic diseases, disabilities<sup>20</sup>, rare diseases<sup>21</sup>, were not provided with adequate follow-up and a worsening of their conditions is foreseeable in the next few months.

It should also be considered that there are many children who in recent months have not received the recommended vaccinations due to the improper closure of many vaccination centres and also because of the parents' fear of contracting the infection by going to these facilities. It should be borne in mind that an interruption, even if only for a short period, can lead to a greater risk of new epidemics such as measles which in recent years has experienced a disturbing spread due to the decreased use of vaccination.

To this there must be added, the reduced access to emergency departments, for fear of Coronavirus contagion, which has had negative effects on children's health.<sup>22</sup>

### **3.2 Psychological and social impact of *lockdown* on children**

The confinement, necessary to counter the spread of Coronavirus infection, has brought about a profound change in our lives and has had a particular impact on children. In a very short time, following the closure of schools, even children found themselves closed up in their homes, forced to make complex changes in their daily habits and face the disruption of their social relationships. They have had to suspend sporting activities, have been deprived of contact with nature in the open air and of recreational activities with repercussions on their mental and

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<sup>19</sup> L. M. YONKER et al., *Pediatric Severe Acute Respiratory Syndrome Coronavirus (SARS-CoV-2): clinical presentation, infectivity, and immune responses*, in "J. Pediatr.", 2020 Aug 20, S0022-3476(20)31023-4, doi: 10.1016/j.jpeds.2020.08.037.

<sup>20</sup> Children with neuromotor disabilities, chronic pulmonary diseases, heart diseases, affected by immune deficiencies, by inherited metabolic diseases are to be considered patients at greater risk and the precautionary measures provided for the adult patient must be adopted even more carefully for these patients. Family members and care staff are recommended to take particular care in adopting care behaviours, aimed at reducing the risk of COVID-19 infection and mitigating the consequences related to sometimes radical changes in lifestyle.

<sup>21</sup> There are more than 7,000 identified rare diseases and it is estimated that there are over 1 million rare disease patients in Italy, including minors with increased risk in case of comorbidity with the virus. Children suffering from a rare disease and who must also cope with other serious clinical conditions that act synergistically on them, such as Covid-19 infection, experience an emergency within an emergency, the complexity of which is not only clinical but also psychological and social. Children must be protected and supported with the utmost rigor and above all they must be guaranteed both access to medicines, often life-saving, and regularity in the scheduling of medical check-ups, according to the clinical criteria of individualized therapy

<sup>22</sup> B. CIACCHINI et al., *Reluctance to Seek Pediatric Care During the COVID-19 Pandemic and the Risks of Delayed Diagnosis*, in "J. Pediatr.", 2020 Jun, 29; 46(1): 87, doi: 10.1186 / s13052-020-00849-w; C. DOPFER et al., *COVID-19 Related Reduction in Pediatric Emergency Healthcare Utilization - a Concerning Trend*, in "BMC Pediatr.", 2020 Sep 7; 20(1): 427, doi: 10.1186 / s12887-020-02303-6; R. M. LYNN et al., *Delayed Access to Care and Late Presentations in Children During the COVID-19 Pandemic: a Snapshot Survey of 4075 Paediatricians in the UK and Ireland*, in "BMJ Arch. Dis. Child.", 2020 Jun 25, doi: 10.1136/archdischild-2020-319848.

physical health; they have lost important reference points such as school, friends, and grandparents. While at the beginning this home confinement may also have seemed like a holiday and perhaps even in some cases the children enjoyed the increased presence of their parents, with the passing of time the separation from school, friends, sports, relatives has often resulted in an unpleasant state of boredom and oppression. On the other hand, children also have remarkable resilience skills, which in many subjects can favour a prompt recovery of emotional stability at the end of the *lockdown*.<sup>23</sup>

In the preschool and school age group, children are almost totally dependent on parents and adults in general, due to their lacking that margin of autonomy (in their movements, in their choice and organization of daily activities, etc.) that pre-adolescent and adolescent minors begin to enjoy. This aspect of being dependent is an important difference compared to adult individuals: a difference that can result in an extra vulnerability, and ultimately in inequality, if society and institutions do not pay necessary attention to the problems and especially to the subjectivity of children. At the same time, their very condition of being dependent means that they are the first to suffer from the inequalities that affect their adult world of reference.

Depressive symptoms and anxiety were noted in schoolchildren due to the restrictions on their social life caused by the *lockdown*.<sup>24</sup> The symptoms of distress were variable in relation to age and different ways of somatization of fear and worry. Sleep disturbances (difficulty falling asleep and nocturnal awakenings), aggressive and antisocial behaviours, eating disorders<sup>25</sup> have been observed. We will have to wait to see if these situations stabilize or resolve spontaneously. The negative effect of the *lockdown* was more evident in children and young people with pre-existing disorders before the pandemic such as those related to attention and hyperactivity (Attention Deficit Hyperactivity Disorder-ADHD)<sup>26</sup>, learning (Disable Student's Allowance-DSA) and autism spectrum (Autism Spectrum Disorder-ASD).<sup>27</sup> The research also highlighted that the severity level of dysfunctional behaviours in children statistically correlates with the degree of distress of their parents. This means that the increase in the parents' symptoms of stress caused by the Covid-19 emergency (anxiety, mood,

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<sup>23</sup> This is a field of research to be implemented, useful for increasing knowledge on the benefit/risk ratio of the contrast measures.

<sup>24</sup> X. XIE et al., *Mental Health Status Among Children in Home Confinement during the Coronavirus Disease 2019 Outbreak in Hubei Province, China*, in "JAMA Pediatr.", 2020 Apr 24; e201619, doi: 10.1001/jamapediatrics.2020.1619.

<sup>25</sup> An Italian study on the psychological and behavioural impact of the Covid-19 pandemic during the *lockdown* on children and adolescents in Italy, conducted by the Giannina Gaslini Institute and the University of Genoa, reports that 65% of Italian children under 6 years and 71% of those over the age of 6 presented behavioural problems related to lockdown, especially with regressive symptoms such as fear of the dark, inconsolable crying, difficulty falling asleep and separation anxiety; over 6 years, above all in the alteration of the sleep-wake cycle, obsession with cleanliness, anxiety, in <http://www.gaslini.org/wp-content/uploads/2020/06/Indagine-Irccs-Gaslini.pdf>.

<sup>26</sup> E. MERZON et al., *ADHD as a Risk Factor for Infection with Covid-19*, in "J. Atten. Disord." 2020 Jul 22, 1087054720943271, doi: 10.1177/1087054720943271.

<sup>27</sup> M. COLIZZI et al., *Psychosocial and Behavioral Impact of COVID-19 in Autism Spectrum Disorder: an Online Parent Survey*, in "Brain Sci.", 2020, 10, 341, doi: 10.3390/brainsci10060341; M. E. S. LIMA et al., *Could Autism Spectrum Disorders be a Risk Factor for COVID-19?*, in "Med. Hypotheses", 2020 May 30, 144:109899, doi: 10.1016/j.mehy.2020.109899.

sleep disorders, consumption of anxiolytic drugs), also increase the behavioural and emotional disturbances of their children.<sup>28</sup>

Among the main consequences of this pandemic, also to be considered is the fact that the health emergency has turned into an economic and social emergency. Within a few weeks, the home confinement, necessary to counter the spread of the infection, has led to job losses and poverty for millions of people, affecting mostly families with children, and worsening the social situation by accentuating the inequalities already dramatically evident in the southern regions and in the suburbs of large cities. Absolute poverty - defined as the impossibility to meet the required monthly budget sufficient to purchase basic goods and services considered essential for a minimum acceptable standard of living - before the epidemic this situation involved, according to Italian National Institute of Statistics (ISTAT), more than 1 million 700 thousand families: 4 million 600 thousand people, 1 million 137 thousand minors.<sup>29</sup> The same analysis shows that the incidence of absolute poverty increases as the number of minor children in the family increases, going from 6.5% for couples with one child to 20.3% for couples with three or more children. Today, this situation has become even worse. Children of foreign parents, account for about 20% of the foreign resident population and 10% of all minors residing in Italy, already normally in situations of fragility were among those most affected. It should be borne in mind that poverty also impacts child health. It is well known that poor children are the ones who get sick more frequently; most often have chronic diseases and behavioural development disorders with consequences that can persist even into adulthood. In addressing the consequences of Coronavirus on health, it is essential to keep in mind its overall dimension, the various bio-psycho-social determinants and the impact in both the short and long term.

### **3.3 Impact of *lockdown* on education and schools**

Regarding the emergency measures that have particularly affected children, the most important is the closure of schools.<sup>30</sup>

This measure was taken in the overriding best interests of children and their family members, although it was a difficult time for children. While on the one hand it aimed, together with other measures such as the *lockdown*, to safeguard their health from the dangers of the virus, on the other hand at the same time it prevented children from being a possible source of transmission of infection within families. This circumstance could have brought about the trauma of physically distancing them from their parents, or even the loss of a family member. Consider that in these moments it is not possible to ensure rules to guarantee that schools can maintain safe school operations, with the aim of

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<sup>28</sup> This is Post-Traumatic Stress Disorder (PTSD), studied for other pandemics. See: G. SPRANG et al., *Posttraumatic Stress Disorder in Parents and Youth after Health-Related Disasters*, in "Disaster Med. Public Health Prep", 2013 Feb, 7(1):105-10, doi: 10.1017/dmp.2013.22. Adaptive behaviours are also present, however researchers put forward the possibility that depressive symptoms lurk behind these. See: L. PISANO et al., *A Qualitative Report on Exploratory Data on the Possible Emotional/Behavioral Correlates of COVID-19 Lockdown on 4-10 Years Children in Italy*, in "Psyarchiv.", 2020, <https://psyarchiv.com/stwbn>.

<sup>29</sup> Italian National Institute of Statistics (ISTAT), *Poverty in Italy. Year 2019*, [https://www.istat.it/it/files//2020/07/REPORT\\_POVERTA\\_2019\\_eng.pdf](https://www.istat.it/it/files//2020/07/REPORT_POVERTA_2019_eng.pdf).

<sup>30</sup> J. LEE, *Mental Health Effects of School Closures during COVID-19*, in "Lancet Child Adolesc. Health", 2020 Jun, 4(6):421, doi: 10.1016/S2352-4642(20)30109-7.

limiting possible contagion and reassuring both parents and teachers. A fact, still valid today is that most Covid-19 transmission occurs within household settings and through aggregation activities.

Certainly the closure of kindergartens and schools, especially elementary schools, has placed a burden on the life and well-being of children and parents, who have taken full charge of looking after their children. In particular, women have had to bear the dual commitment of seeing to their children, as well as continuing to work face to face or even remotely.

In order not to interrupt the educational process during the pandemic and the *lockdown*, distance learning (DAD) was activated, generally with live lessons on various platforms. The significant commitment and dedication provided by teachers for the success of the new forms of teaching is to be noted. Although distance learning certainly cannot replace traditional face-to-face teaching, especially with regard to elementary schools, it must be recognized that this teaching method played an important role in the months of home confinement and prevented a drastic interruption of the educational dialogue with students. In addition, the state of necessity has nevertheless contributed to activating ideas and energy to teaching innovation. In this regard, the educational staff of schools for the very young, nursery educators, teachers, although alone and not prepared for such an event, faced numerous psychological and attitudinal challenges, carrying out a crucial function for the purpose of mitigating the adverse effects of the pandemic on children. However, it cannot be excluded that the further spread of the pandemic will make the use of digital platforms still necessary.

However, the exclusive use of the online mode of teaching has brought to light old social and cultural inequalities and created new ones: between families who have found it easy to equip their children with the appropriate technological tools (computers, tablets, etc.) and others who have had difficulty in doing so; between families who were already familiar with new technologies and were prepared to help their children and others who were less prepared and had less time available.<sup>31</sup> Particularly penalized with distance learning were students with disabilities who were unable to make use of the necessary support. Likewise, children of immigrant parents were among the most affected. Furthermore, not all teachers have activated distance learning or have been able to use it efficiently, not having adequate training and preparation in this kind of teaching, or not having the adequate equipment. We must not forget that Italy is among the last in ranking in the European Union as regards digitization, with the inevitable consequences of a "*digital divide*" which risks "leaving behind" those who do not have the tools, technologies, skills to access online training.<sup>32</sup>

Add to this that, even if the problems of serious inequality in education created by the *digital divide* can be solved, as in any case they must be, distance learning cannot and must not replace, except in cases of necessity, face to face teaching. The reasons are obvious and the inconvenience experienced by

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<sup>31</sup> Regarding the possible loss of learning of children due to the closure of schools, there are currently no specific studies. Some authors try to derive insights from previous studies focused on the influence of school as an environment conducive to learning. It emerged that even ten days of learning in a school environment are enough to significantly increase "crystallized" intelligence (the ability to use acquired knowledge). See: S. BURGESS et al., *Schools, Skills, and Learning: the Impact of COVID 19 on Education*, VOX CEPR Policy Portal, 1 April 2020, <https://voxeu.org/article/impact-covid-19-education>.

<sup>32</sup> The Digital Economy and Society Index (DESI), Ranking 2020, <https://ec.europa.eu/digital-single-market/en/desi>.

students and teachers during the *lockdown* are proof of this. Many children, unable to go to school, have missed an important educational opportunity for their development. Schools and educational services are recognized as fundamental factors for rebalancing social inequalities<sup>33</sup>, as they are the first areas of extra-familial relationships in which significant experiences are developed and had affections, games, conflicts and empathic exchanges are experienced together with peers.

It follows that the school constitutes a fundamental opportunity for socialization and an instrument for promoting equality. This is all the more true for young children, especially in the early years of school, where learning is closely linked to the multisensory physical dimension and the emotional component, linked to the relationship with teachers and peers, is of particular importance as it intertwines with the cognitive component. Each learning path has an interactive element that it is difficult for distance learning to compensate. Students learn from teachers but also from the group of students in which they are placed. Teaching and learning are not simply transmission and acquisition of notions, but are part of the educational process, through comparison, dialogue, interaction: conditions for intellectual growth and emotional maturation.

This pandemic is therefore jeopardizing education, which is considered an important factor for personal and social development also with a view to preventing the transmission of poverty from one generation to another.

At present, if on the one hand the need for face-to-face education is recognized, on the other there is concern about the growth of the pandemic.

In the context of the Covid-19 emergency, the reopening of schools for face to face teaching appeared as a necessary action to restore balance and psychological well-being to the girls and boys who already attended schools, to allow the integration of new children and to be able to provide families with the necessary support to reconcile the moments of family life with the demands of work. But in the current crisis situation in which schools have found themselves for decades, there are still many issues to be solved to reduce risks. The rules designed for full resumption of face-to-face teaching are diverse and necessary: physical distancing and a greater number of classrooms in larger and well-ventilated rooms; flexible entry times to avoid overloading the already incongruous public transport available; canteens run in shifts; recruitment of teachers; health protocol for the management of any cases of infection at school.<sup>34</sup> These measures could also be sufficient to make schools safer if effectively applied in the necessary time and manner, but in order to be effective they require responsible commitment from all those involved. It is important for teachers and family members to engage in the educating to personal and public health responsibility and that they themselves are in turn supported by institutional initiatives in this regard.

Alongside the individual responsibilities of all those involved, it is necessary to highlight the social responsibility towards education which is another sector, along with those of health and research, which has shown all its shortcomings during this pandemic. Education appears today as one of the first emergencies to be solved and, in the precarious balance between benefits and risks, we stress

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<sup>33</sup> ISS, COVID-19 Report No. 43/2020, *Indicazioni ad interim per un appropriato sostegno della salute mentale nei minori di età durante la pandemia COVID-19.*

<sup>34</sup> ISS, COVID-19 Report No. 58/2020, *Operational guidance for the management of SARS-CoV-2 cases and outbreak in schools and kindergartens.*

the need to favour returning to school, as stated by many parties (pediatricians, psychologists, pedagogists, sociologists, etc.), within the context of security procedures<sup>35</sup>.

The Committee, therefore, strongly requests that what has not been done up to now for education, with its serious economic and structural shortcomings, must now be deemed essential in the various State budgets and no longer postponable. These changes must be made with a long-term perspective in mind, not only with targeted interventions in case of pandemics. And in the planning of policies to restart the country, the Committee believes it necessary to place children, young people, their families and the entire school system and its facilities at the centre.

## Recommendations

1. Never before this pandemic situation have bioethical issues been indissolubly intertwined with political, economic, social and health issues. Hence the need to invoke the principles of precaution and responsibility more strongly. The precautionary principle as a precautionary intervention and application of the virtue of prudence, in the face of the rapidity and unpredictability of viral transmission, in order to prevent or limit negative consequences pending preparation of systematic interventions given the limited knowledge on Covid-19. The principle of responsibility, in turn, involves the commitment to protect especially those in situations of specific and temporary vulnerability, such as pregnancy, the perinatal and neonatal period.

2. The Committee stresses the importance, especially in the current pandemic emergency, of reducing to a minimum the measures that most negatively affect children, paying specific attention to the interests of the child as a fundamental ethical-legal criterion for evaluating the risk-benefit relationship of the hypothesized measures.<sup>36</sup>

3. Place education at the centre of the life of the country, of its choices and investments. Developing the student-teacher approach to instruction in order to create schooling that is also able to activate new forms of teaching, from which all girls and boys can benefit. Therefore, the role and function of teaching and school activities must be rethought, if necessary also linked with digitization. This is not to replace, but to integrate face-to-face teaching, typical of traditional teaching, with adequate support in the training of teachers and the provision of tools, skills and technologies so that there is access to digital education where it is needed.

4. It is hoped that families and school staff will be guaranteed adequate information and participation in the decisions affecting them.

5. Promote multidisciplinary research on the bio-psycho-social determinants of child health within the context of the Covid-19 pandemic, which can form the basis of interdisciplinary guidelines for mitigating the negative effects and overcoming the problematical issues that have arisen in terms of health and on the psychological and social level.

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<sup>35</sup> See. A. GUTERRES, *The Future of Education is Here*, <https://www.un.org/en/coronavirus/future-education-here>.

<sup>36</sup> In this regard, proportionality and limited time are recalled as criteria for evaluating public measures, as already indicated in the ICB Opinion, *COVID 19: public health, individual freedom, social solidarity*, 28 May 2020.

**6.** Particular care and psychological support must be dedicated to all the most vulnerable children with disabilities or those from critical family situations, who have suffered most from the effects of the pandemic and the closure of educational services.

**7.** Promote education directed to personal and public responsibility for health, particularly for needs dictated by the pandemic, both within the school curricular process and also through extra-curricular training initiatives with the involvement of family members.