



THE SOCIAL AND ECONOMIC EFFECTS OF COVID-19 ON CHILDREN IN NORTH MACEDONIA

Rapid Analysis and Policy Proposals



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HIGHLIGHTS





1. Government Covid-19 measures – employment retention measures, relaxation of social assistance criteria and one-off financial support – have mitigated poverty incidence among children. Although all of them are pro-children, i.e. tend to distribute proportionally larger share of funds to households with children, none of the measures was designed to directly target children, and their pro-children effects are mainly driven by the household structure and income nexus.

Section 2.1

2. Covid-19 has exacerbated child poverty in North Macedonia. It has likely put additional 16,000 children below the poverty threshold increasing the relative child poverty rate from 29.3 per cent to the estimated 33.3 per cent, a rate not seen in the country since the Survey on Income and Living Conditions was first conducted (2010). The projected increase is stronger than the one observed during the Global Financial Crisis of 2009/10.

Section 3.3

3. The poverty increasing effect of Covid-19 is the strongest among children living in households with 3 or more children and where education attainment among adult members is low, without significant gender and age differences.

Section 3.3

4. Child income poverty is combined with the incidence of other material deprivations of households such as insufficient access to the internet and poor housing conditions, which may be particularly important for the learning progress of children in times of school closures and confinement. Such vulnerabilities are particularly prominent among Roma children.

Section 3.4



5. Poorest children may suffer more under Covid-19 due to the combined effects of multiple risks and disadvantages such as undernourishment and stunting; low pre-school attendance; failures in acquiring foundational learning skills; constrained access to sanitation facilities; and heavier reliance on polluting fuels for cooking and heating of the household.

Section 3.4

6. Children from single-parent households and from households receiving guaranteed minimum assistance faced increased risk of food poverty amid suspension of free meals due to the closure of pre-school and school facilities. Closure of day-care centers and movement restrictions of care providers deteriorated care quality for children with disabilities.

Section 3.1

7. Family violence increased during Covid-19, with children being nearly 10 percent of the victims. Cases of peer-violence were reported among fostered children. They likely suffered increased peer violence during Covid-19. Due to the lockdown and movement restrictions, violation of the right to parenting time between children and the parent with whom they do not live increased.

Section 3.1

8. The strongest pro-children effect resides with the relaxed criteria for receiving guaranteed minimum income. However, the additional disbursements in April and May 2020 are negligible compared to the theoretical potential of the measure, suggesting that the effort to reach those most affected by the pandemic has been insufficient.

Section 2.1
Section 3.2

9. Budget programs related to children underwent cuts despite the slight increase of total government expenditures with the Budget Supplement of May 2020. In particular, some development programs, such as inclusive education, faced severe cuts further exacerbating children's vulnerabilities and the capacity of institutions (particularly pre-school and school facilities) to adapt to the lingering crisis and potential new wave of the pandemic.

Section 2.2
Section 2.3

10. The educational system in the country shifted to distance learning fairly quickly after the physical closure of the schools and preschool institutions. However, the organization of the process was left to individual schools and teachers, with no unification of the tools and methods used, which created unequal learning opportunities for the children.

Section 4.3.1

11. Learning losses might be the greatest among children from poor households, Roma children and children with disabilities. They were faced with insufficient access to education, lack of quality in the parental support and lack of school support, exacerbated by the insufficient resources of many schools in the areas where these children predominantly reside.

Section 4.3.3
Section 4.3.5

12. The teaching staff is not adequately prepared for distance/digital learning, despite selective and individual efforts that produced rapid gains. Although teachers should use ICT in the classroom-type teaching and learning process, the pandemic revealed that their ICT skills related to planning, implementation and assessment were insufficient for the introduction of distance learning. This reinforces the need for rapid investment in such skills among teaching staff.

Section 4.3.2

13. Mobilization of human resources across the educational system with the main goal of assisting children's learning process took place. Most notable examples include the creation of the TV classroom and the Edulno platform aimed at enhancing learning of the preschool and primary school children. The efforts continued with forming working groups to devise a strategy for digital learning.

Section 4.2
Section 4.5



14. Covid-19 has caused delays in accessing hospital care for newborns, children and mothers. The provision of services across the healthcare system declined by 39 per cent to the whole population, 33 per cent to children and 25 per cent to mothers and newborns. Yet, the prime reason has been the reduced demand for non-urgent services due to fear of infection, rather than due to significant shift of resources to fighting the virus.

Section 5.2.1

15. Human resources were identified as the key bottleneck in the health response to the Covid-19 crisis. Moreover, the pandemic revealed grim shortages in medical and personal protective equipment for the personnel working with infected population. As a result, the rate of infection among medical staff is high at 9 per cent.

Section 5.1

16. Diagnostics and control of chronic conditions and, to an extent, mental health, have been mostly neglected during the pandemic. In contrast, reproductive health services and healthcare of infants remained largely intact, mitigating the effects of the crisis on young children.

Section 5.2

17. Vaccination during Covid-19 has been conducted with almost no delays, while medical check-ups of school-age children have been postponed. This may have some short-term effects on children's health, though it is expected that prevention will be intensified once the pandemic subsides.

Section 5.2.2

18. The health system has made efforts to fully utilize the available technology during Covid-19. Doctors, mainly GPs, opted for telemedicine as an alternative to providing healthcare services in person, while the national medical IT system has been adapted to handle testing and monitoring of mild Covid-19 cases.

Section 5.3

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ABBREVIATIONS



BDE	Bureau for the Development of Education
CA	Child Allowance
Covid-19	coronavirus disease of 2019
CPH	Center for Public Health
CSW	Center for Social Work
CVET	Center for Vocational Education and Training
EA	Education Allowance
EBRD	European Bank for Reconstruction and Development
EMIS	Educational Management Information system
ESA	Employment Service Agency
EU	European Union
EUR	euro
HIF	Health Insurance Fund
ICT	information and communication technology
ICU	intensive care unit
ILO	International Labour Organization
IMF	International Monetary Fund
IPH	Institute of Public Health
GDP	gross domestic product
GMA	Guaranteed Minimum Assistance
GP	general practitioner
LFS	Labor Force Survey
MCEC	Macedonian Civic Education Center
MDC	main disease categories
MICS	Multiple Indicator Cluster Survey
MK-MOD	Tax and Benefit Microsimulation Model for North Macedonia
MKD	Macedonian denar
MLSP	Ministry for Labor and Social Policy
MoES	Ministry of Education and Science
MoH	Ministry of Health
NGO	non-governmental organization
OECD	Organisation for Economic Co-operation and Development
OSCE	Organization for Security and Co-operation in Europe
PPP	Purchasing power parity
SILC	Survey on Income and Living Conditions
UCG	Universal Child Guarantee
UNDP	United Nations Development Programme
UNICEF	United Nations Children's Fund
USAID	United States Agency for International Development
VPD	vaccine preventable disease
WHO	World Health Organization



1. BACKGROUND AND OBJECTIVE OF THE STUDY

The pandemic caused by the global spread of the coronavirus Covid-19 (hereafter: the pandemic or Covid-19) is harming social, educational and health wellbeing of children, with the most vulnerable being hit the hardest. Children are being impacted directly, through school, extra-curricular and childcare facilities closures, social distancing and confinement, which puts a heavy burden on their educational, cognitive and emotional development, with the risk of increasing their anxiety and stress levels. Children are also being impacted indirectly, through the reduction of household incomes, which reduces their material and

social wellbeing, impairs access to social and healthcare, while also exposing the hardest hit to risks malnutrition. It is critical to understand that the negative impact of the Covid-19 crisis may be particularly strong for some groups of children including those living in poverty, children with disabilities, children deprived of parental care, children in detention and so on. Furthermore, negative impacts of this scale may extend well beyond the short term spreading childhood poverty across many childhood years or beyond (Elder, 1999).

The experiences of the past economic crises, which hit the children in North Macedonia

hard, bear out the expectation that the current crisis will have considerable longer-term unfavorable effects on children. Research and data assessing the Global Financial Crisis of 2009 indicate that children were affected indirectly, as “more than half of the households (56.4 per cent) in North Macedonia were unable to fully provide for the schooling needs of their children, 8.8 per cent of children were experiencing problems with access to education, while 9.3 per cent lacked access to regular health check-ups” (Gerovska Mitev, 2010). Likewise, the poverty of couples with children between 2008 and 2010 increased by 3.4 percentage points, while of other households with children by 5.5 percentage points, amid a smaller rise of headcount poverty of 2.2 percentage points over the same period. Child poverty increased from 34.1 per cent in 2009 to 36.9 per cent in 2010.¹

The health response to Covid-19 inflicted severe economic and job losses in North Macedonia. With the proclamation of the state of emergency on March 18, 2020 by the President, the technical government² introduced strict lockdown measures including a curfew. As a result, part of the economic activity went into induced contraction as bars, restaurants and shopping malls were forced to close. Other part of the economic activity

significantly subsided with the closure of borders and restriction of movement, most notably in hospitality and trade. ILO/EBRD (2020) estimates that a full-time equivalent of about 85,000 jobs have been lost (11.5 per cent of total employment) by the mid of the second quarter of 2020.³ Fortunately, preliminary data suggest that actual job losses have been minimized, particularly due to government’s subsidy schemes. However, a significant share of income has been lost. With the projections that the largest impact on the economy and the labor market would occur in the (ongoing) second quarter of 2020, the income and job losses may actually become considerably more severe.

¹These poverty numbers are based on the Household Budget Survey, which has been abandoned in 2010 with the introduction of the Survey on Income and Living Conditions. Hence, these should not be compared with our later estimates based on SILC.

²Appointed on January 3, 2020, with a mandate of 100 days to prepare and conduct fair and democratic elections scheduled for April 12, 2020. This meant that at the time the crisis hit – and the schools closed on March 11, 2020 — North Macedonia did not have a functional parliament, so that the proclamation of the state of emergency by the President was the only legal way to restore the policymaking power of the government.

³See, e.g. [FT Opinion No. 44 for the expected economic recession and projection of GDP decline](#).

This is very likely to exacerbate poverty. With a child poverty rate of 29.3 per cent, almost every third child (0-17 years of age) in North Macedonia grows up poor (2018 data from the Survey on Income and Living Conditions, SILC). The poverty rate of households with three or more children stands at staggering 50.2 per cent, followed by a rate of 33.5 percent for single parents. The percentage of children who are seriously materially deprived—i.e. child population that cannot afford at least 4 of 9 basic needs—stands at 33.5 per cent. Overall, 9.4 per cent of all children in North Macedonia suffer from compound risks (income poverty, material deprivation and living in jobless households), nearly four times higher than the EU-28 average.⁴ The existing evidence⁴ suggests that ethnic Albanian households constitute more than 40 per cent of the poorest quintile, with disposable incomes at only two-thirds of those of Macedonian peers, and the Roma population is not only concentrated in the bottom 40 per cent but is also far below other ethnic groups in labour market outcomes, human capital, and other nonmonetary poverty indicators.

The social and child protection system in North Macedonia went through a comprehensive reform in June 2019 with the objective to further reduce poverty through increase of

cash transfers and improved targeting. The law amendments streamlined social and child protection by imposing two major changes: (a) introduction of a guaranteed minimum income for poor households and (b) removal of most of the conditionalities of child allowances, thereby significantly increasing their coverage. Changes included advanced and improved integration of social services, including those aimed at responding to cases of violence against children. In parallel, the process of deinstitutionalization resulted in no children being in institutions, contributing to the provision of improved quality of care in alternative settings within local communities. Roma children remain at the highest risk of exclusion, including the persistence of the child street beggars⁵. Social protection spending has been on an increasing trend reaching 15.5 per cent of GDP in 2019, including the spending on social assistance, but the latter comprised only 1.4 per cent of GDP. Moreover, only

⁴There is no national statistical disaggregation by ethnicity. Hence, alternative sources are used. The key source about ethnic disaggregation here is the [Survey of Quality of Life in Macedonia](#), which was designed and conducted by Finance Think in May–June 2017.

⁵[North Macedonia 2019 Report- European Commission](#)

quarter of such spending relates to children (Petreski and Petreski, 2018).

Poverty, social exclusion and inequalities largely determine the extent to which children are exposed to the social consequences of Covid-19. Poorer households are less financially resilient, more exposed to low job intensity, informal work and job losses. Informal work, which in North Macedonia has been estimated at 18.5 per cent in 2018 (Labor Force Survey, LFS), may particularly jeopardize dependents' access to health and social protection through work (OECD/ILO 2019). Growing up and living in poverty and being socially excluded also affects a range of non-monetary deprivations such as malnutrition, poor housing, sanitation issues, space to play or study and opportunities to engage in online learning (OECD, 2020a). 18.2 per cent of households in North Macedonia did not have access to internet (2019 data from the Multiple Indicator Cluster Survey, MICS).

The health response to Covid-19 inflicted school closure in North Macedonia on March 11, 2020, including all extra-curricular activities for children, public or private. Schools will not re-open until at least the beginning of the next school year, while the reopening of kindergartens currently planned for July 1st is likely to be postponed.

School closure was followed by a fairly rapid response by the Government, enabling a switch to distance learning in order to prevent large losses in learning, which in turn, could convert into longer-term scars on human capital. Online lectures were encouraged, though not compulsory, while a national education platform EduIno (<http://www.eduino.gov.mk/>) was developed swiftly, integrating video lectures, resources, games and various activities in support of the educational process. The national television broadcasted live TV classes every day until the end of the school year on June 10th. The government decreed that one parent per family with children up to and including fourth grade of primary school was to be granted a paid leave, at the expense of the employer, to take care of the child(ren).

The pre-Covid-19 situation with education may exacerbate expected learning losses due to school closure. Although both primary and secondary education are compulsory, several trends point out to worsening education quality. The share of education expenditure in GDP has been declining, which partially reflects the declining number of pupils and students (determined by demographic trends). At the same time, the number of teachers has been increasing and outcomes have worsened (Petreski and

Petreski, 2018). With fiscal decentralization, municipalities are responsible for administering the current education spending, which has led to considerable disparities, as larger municipalities took advantage of the economies of scale and improved efficiency (World bank, 2019). However, the lack of educational resources and poor learning conditions have been evident, particularly teachers' inability to detect and diagnose pupils' learning needs.

According to the PISA 2018 assessment (OECD, 2019c), pupils in North Macedonia are lagging significantly behind their international peers, despite recent progress. In the three ranking areas – math, reading and science – Macedonian pupils have markedly lower scores compared to the international average and even lower than the OECD average. Grade 1 pupils in North Macedonia have only 552 hours of teaching time and by the time they are 14, they accrue 900 hours less instruction on average than students in OECD countries (OECD, 2019a). Girls scored higher than boys by seven points in mathematics and by 19 points in science, these gender gaps being wider or inverse of those in the OECD. The PISA 2018 results show that 11 per cent of variation in pupils' performance in math, and 10 per cent in science is explained by socio-economic background, i.e. that pupils with

disadvantaged backgrounds fare worse than their more advantaged peers, everything else being equal.

Inequalities in access to and quality of education are already visible in pre-school education and can be traced through the whole system. Overall participation in pre-primary schooling is low, standing at 36.8 per cent, with significant disparities: 7.4 per cent of children from the poorest quintile attend pre-primary school compared to 67.4 per cent of those from the richest quintile; 53.9 per cent among Macedonian ethnicity compared to only 14.1 per cent among Albanian and 11.4 per cent among Roma ethnicities (MICS, 2019). Low levels of pre-primary attendance mean that children enter school unprepared, without basic literacy and numeracy skills. Other education-related indicators reveal significant discrepancies between pupils residing in poor and well-off households. For example, 22.5 per cent of the secondary-school-age youth living in the poorest households have been out of school, compared to none among the richest ones. Similarly, despite being compulsory, the rates for completion of the upper secondary education are devastatingly low among the poorest segments, at 64.4 per cent, compared to 100 per cent among the richest ones (MICS, 2019). Non-attendance and non-

completion rates are particularly high in Roma settlements.

The distance learning imposed by the Covid-19 crisis may impact learning through at least two channels. First, children with limited or no access to learning resources and internet, as well as living in informal or crowded settlements, are particularly affected. As an illustration, 58.8 per cent of children had three or more books at home, the percentage dropping to 17.9 per cent among the poorest quintile and 12.4 per cent among the Roma (MICS, 2019). Such a challenging environment may be prevalent among rural households, multi-child families and for particular ethnicities – most notably Roma – which have been already suffering disadvantages (e.g., an estimated 18.7 per cent of children from Roma communities did not regularly attend primary school even pre-Covid-19). Children with disabilities are especially hard to serve through distance learning, and they were already less likely to access quality education and to successfully progress through the system. The second channel is the amplification of the influence of the socio-economic background of parents on the learning outcomes of children. Due to the introduction of distance learning, not only do parents need to be involved in assisting their children and assuring the quality of the

learning process, but also to secure a smooth transition to distance learning, which may prove particularly ineffective in disadvantaged backgrounds (either financially or educationally), hence risking a worsening of educational results and subsequent dropouts, particularly in upper secondary education.

As elsewhere, children in North Macedonia have been least impacted by the infection of Covid-19 itself directly. Although the Government publishes all national information related to Covid-19 on its official web site (<https://koronavirus.gov.mk/>), disaggregation of infected persons by age is not provided. Yet, anecdotal evidence corroborates the global statistics revealing that the hospitalization rates for symptomatic children have been 10 and 20 times lower than for the middle-aged persons and 25-100 times lower than for the elderly (Verity et al. 2020). Still, the broader effects of the pandemic on child health may be significant and exacerbated by pre-existing health system deficiencies.

North Macedonia' score on the Global Health Security Index (2019) is 39.1, ranking it 90th out of 195 countries. The capacity for detection and reporting (which encompasses laboratory systems, real-time surveillance and reporting, the epidemiological workforce, and data integration across human/

animal/environmental health sectors) is considered moderate, with the country scoring just below average (41.7 against the average of 41.9). Unfortunately, the country's capacity for rapid response scores 33.1 significantly below the average of 38.4, with a ranking of 112.

Before the pandemic outbreak, North Macedonia had the highest perinatal mortality in Europe with 16‰ in 2016, despite almost all pregnant women receiving prenatal care and almost all births being attended by skilled health personnel (MICS, 2019). Infant mortality had been on a steady increase reaching 10.8‰ in 2015, but the trend then reversed. In the period 2005-2018, the MMR immunization rate of children of age 1-2 declined from 96% to 83%. Measles immunization coverage remains low, while large outbreaks and related fatalities were registered in 2018 and 2019⁶, which the authorities managed to contain with catch up vaccination efforts notwithstanding significant vaccine hesitancy (IPH, 2019). Vaccination coverage has been declining due to the influence of anti-vaccination movements. Poor nutrition and insufficient physical activity of children have been prevalent in North Macedonia. For example, 13.1 percent of boys and 9 per cent of girls under the age of 5 were overweight (MICS 2019).

According to administrative data of the Health Insurance Fund, in 2019, over 1.8 million⁷ individuals were covered by health insurance. This indicates a high coverage of about 90 per cent and aligns with MICS data indicating that over 95 per cent of children are covered with health insurance (MICS, 2019).

However, 20.5 per cent of people have had a great difficulty using the healthcare services (SILC, 2018), the data suggesting a reinforcement between such difficulty and income poverty. State spending on health as share of GDP has been constantly declining; it went down from 9 per cent in 2002 to 6.1 per cent in 2017. The state expenditures on child healthcare declined from 0.68 per cent of GDP in 2010 to 0.63 per cent in 2017 (Parnardzieva-Zmejtkova and Dimkovski, 2018). The share of out-of-pocket payments in total health expenditure declined over time, though the level of 31.9 per cent in 2017 was still significant (World Bank data). Inequalities in healthcare access and quality are still pervasive. Petreski (2020) documents that the unsatisfied need of a medical consultation and the financial burden of visiting a doctor have been the highest in the poorest deciles.

⁶See also a discussion here: [link](#)

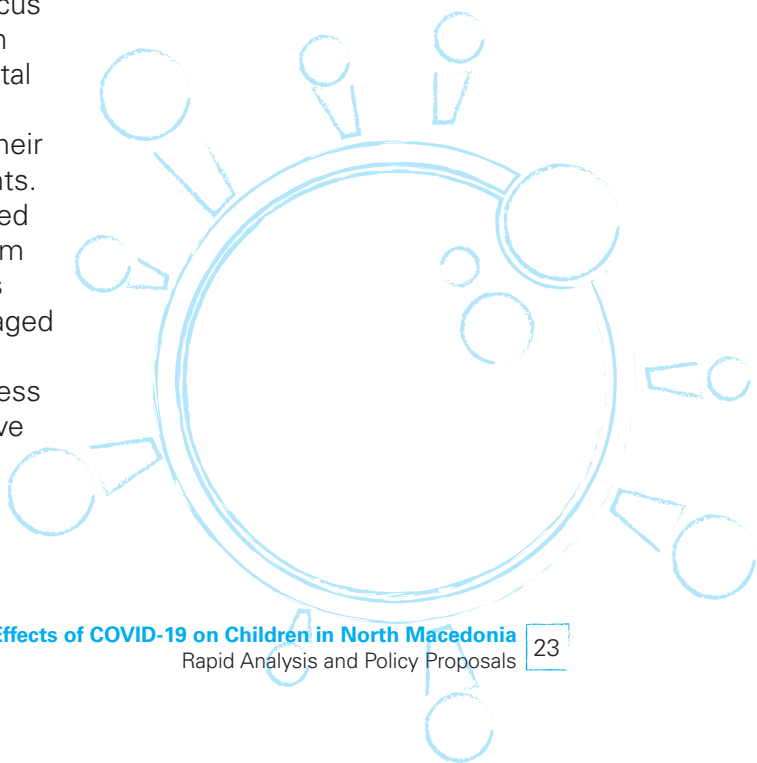
⁷<http://www.fzo.org.mk/WBStorage/Files/GODISEN%202019%20.pdf>

Ethnic inequalities in healthcare are particularly pronounced for the Roma community who also have a reduced life expectancy (AECOM, 2019).

The Covid-19 pandemic may aggravate weaknesses and reverse recent gains in child healthcare. Reduced household income may force poor families to cut essential healthcare expenditures or worsen food quality risking malnutrition and obesity among children. The longer-term impact may be more difficult to assess precisely and depends on the extent to which the pandemic may reduce the access to essential reproductive, maternal, newborn and child health interventions, such as antenatal care, skilled attendance at birth, and treatment for various childhood diseases. In addition, the efforts and recent gains in measles immunization may be curtailed due to the loss of focus by authorities. Finally, children may face threats to their mental health, if confinement and physical distancing increase their anxiety and that of their parents. Parents are particularly exposed to the pressure stemming from reduced incomes and job loss risks. For the most disadvantaged children, the accumulation of deprivations may increase stress levels and impair their cognitive development.

The overall objective of this study is to develop a rapid, child- and gender-sensitive socio-economic assessment of the medium- and long-term impact of the crisis caused by the Covid-19 pandemic on child well-being in North Macedonia. In particular, the assessment focuses on three complementary domains:

- (i) impact on specific child-related sectors: social and child protection, education, and healthcare;
- (ii) impact on child poverty; and
- (iii) impact on public finance, in particular the capacity of the Government to respond and mitigate the impact of the crisis through public investments in key child related sectors.



The methodology used in this study includes the following tools and approaches:

a. Collection of primary data through interviews.

For the purpose of this study 28 in-depth interviews were conducted, with a wide spectrum of stakeholders in the three sectors (social and child protection, education and health) involving government officials, professionals, practitioners, CSO representatives, teachers, psychologists, and doctors. Along the questions pertinent to the represented sector, interviewees were also asked about the additional financial needs imposed by the broader effects of the Covid-19 crisis.

b. Collection of primary data through a survey.

The researchers conducted a survey with general practitioners (GPs, including family doctors, pediatricians and gynecologists), which resulted in 236 responses, or 14.8 per cent of the entire targeted population. While it is not claimed that this data is fully representative, the response rate of the survey secures sufficient heterogeneity to provide robust aggregate responses.

c. Collection of

administrative data.

Limited and selected administrative data were collected from the Ministry of Labor and Social Policy to obtain initial impression of the social effects of the crisis on households and children. Administrative data have also been collected on the planned and executed fiscal spending from the Ministry of Finance, as well as for a range of health-related indicators from the Ministry of Health. Data pertinent to the labor market response and the execution of the government subsidies for the employment retention measures have been collected from the Employment Service Agency and the Public Revenue Office.

d. Collection of secondary survey data.

For various parts of the study, two key surveys were drawn upon: individual-level data of the Survey on Income and Living Conditions (SILC) 2018 as made available in the safe room of the State Statistical Office; and the newly-released aggregate data of the Multiple Indicator Cluster Survey (MICS) 2019 as published by the State Statistical Office⁸.

⁸Available [here](#)

e. Microsimulation. The simulation is based on the MK-MOD Tax & Benefit Microsimulation Model which was originally built and is being maintained by Finance Think⁹. For the purpose of this study, selected features of the model were used, and it has been re-calibrated on the latest SILC 2018. Under certain assumptions, the modeling exercise simulates the effects of the pandemic on child poverty, and gauges the poverty and fiscal effects of some policy proposals.

f. Desk analysis. While at present the global, let alone domestic, literature is yet scarce in rigorous assessment of Covid-19's impact on children's wellbeing, the few available reports are used throughout the analysis either to compare the global and local expectations or to cross-reference expected effects (most notably those related to the GDP growth and labor market developments) in North Macedonia. The State Budget and its supplement, as well all Government decrees since the proclamation of the state of emergency have also been analyzed.

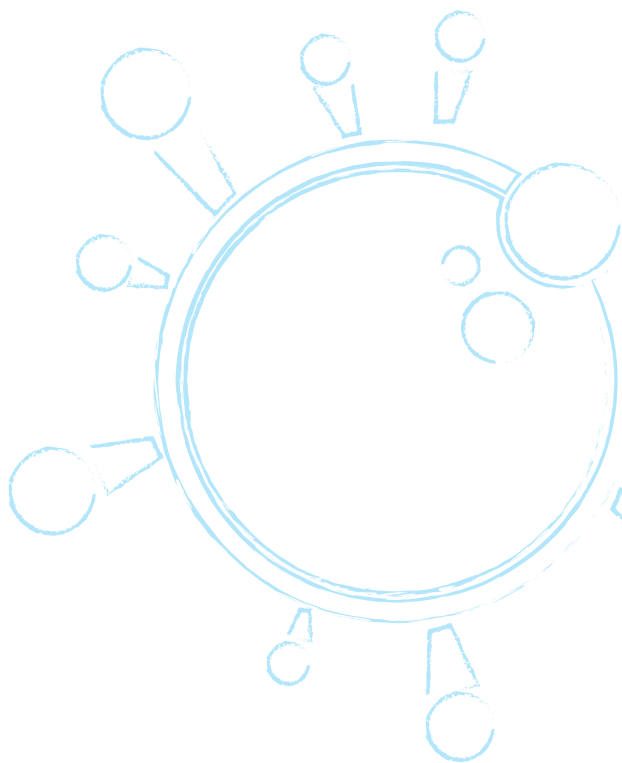
The structure of the study is as follows. Section 2 reviews the response of the Government of North Macedonia to Covid-19, with special reference to the

policy moves directly and indirectly affecting children's wellbeing. It provides a children-focused assessment of the fiscal implications of the latest policy measures while paying special attention to the child-related programs in the state budget and assessing the relevance to children of the changed priorities in current and investment spending as imposed by the recent budget supplement. Section 3 assesses the impact of the pandemic on the sector of social and child protection. It also simulates the impact on child poverty, including a brief discussion of a range of non-monetary poverty indicators. Section 4 assesses the pandemic's impact on the education outcomes for children, and Section 5 – its impact on the health outcomes. Section 6 defines the scope for a policy response and discusses the simulated and potential fiscal implications of some policy proposals.

⁹MK-MOD is a static model, applying user-defined tax and benefit policy rules to micro-data on individuals and households, it calculates the effects of these rules on household income, and then outputs results – still at the micro level. The model is STATA-based. See further: [link](#)



2. GOVERNMENT'S RESPONSE TO COVID-19, WITH REFERENCE TO CHILDREN



With the proclamation of the state of emergency on March 18th 2020, the lawmaking power was vested in the government. This implied that all policy measures and changes which otherwise required law amendments or changes by the parliament have been conducted with enacting of decrees with the power of laws by the government. This section reviews the decrees which are directly or indirectly relevant for children and assesses their fiscal implications. Then, the section provides a discussion of the Budget Supplement adopted likewise as a response to the pandemic.

2.1. THE POLICY RESPONSE TO COVID-19 THROUGH ADOPTION OF DECREES WITH THE POWER OF LAW

2.1.1. Decrees affecting children

The Government adopted three packages of policy measures to cope with the negative consequences of Covid-19. These were designed to deal with four prime risks: the risk of spreading infection; economic risk, including income loss and worsening of the quality of life of the most vulnerable citizens; the risk of impaired access to services; and the risk of the deterioration of the learning process. The policy response grouped around these risks is particularly relevant for children, either directly or indirectly. The measures implemented through respective decrees with the power of law are analyzed in **Table 1**.

Measures implemented to contain the spread of the infection included: border closures, encouraging social distancing, imposing strict travel restrictions, prohibiting movement of citizens including a curfew, mask wearing and disinfection, etc. Over certain periods, the curfew was more restrictive for children than for the other age groups, purposefully imposed to avoid contact with the elderly and prevent potential contagion of the latter from asymptomatic virus carriers among the former.

Actually, most of the outbreak response measures directly relevant to children were aimed at protecting children from the risk of infection. These further included: i) extension of parental leave benefits for newborns, ii) extension of the deadlines for submitting a request for financial assistance for a newborn, for granting the right to parental allowance (for third and fourth child) and for special child allowance, as well as temporarily waiving the school attendance confirmation prerequisite for the disbursement of the education allowance, iii) school, pre-school and extra-curricular school facilities closure, and iv) cancellation of the State Matura Exam. As a result of these infection containment measures, the education system has been most drastically affected, and the risk of the deterioration the learning process increased. To cope with the latter, the Government launched distance-learning, albeit, without a unified and firm structure across schools. The national education platform (<http://www.eduino.gov.mk/>) and broadcasting of structured TV lectures daily were swiftly initiated to support online learning. The loss of childcare and schooling services was mitigated by the government decision to grant employed parents (one per family) of children up to the age of 10 a leave paid by the employer.

The Government devised two types of policy interventions to prevent income loss and maintain the quality of life of citizens. The first aimed to protect jobs in and liquidity of the most affected companies and included subsidizing private-sector wages and social contributions, deferral of profit tax pre-payments, loans at favorable terms and loan guarantees and some sector-specific support. Two key employment-retention measures involved a subsidy for companies with a 30+ per cent decline in revenues during the pandemic compared to the average of 2019, for their workers receiving up to MKD39,900 net wage, with an amount of MKD14,500 per worker; as well as a subsidy of 50 per cent of the social contributions up to the level of the average wage. The two were set as mutually exclusive, with the exception of the companies in tourism, transport and hospitality who were allowed to combine them. ILO/EBRD (2020) suggests that the first measure had a clear advantage for companies due to its generosity.

The second type of intervention aimed at maintaining the social stability of the most vulnerable citizens through increasing access to services and relaxation of eligibility criteria for guaranteed minimum assistance (GMA) and for the unemployment benefit. The relaxation of the GMA criteria

concerned the ownership of a real estate where the household resides, a car older than 5 years and a construction land parcel smaller than 500 m², all of which made applicants ineligible before. In addition, the income criterion was to be assessed on the previous month's receipts, rather than on the previous three, hence implying rapid entrance of households in the GMA system after their income fell due to Covid-19. The relaxation of the criteria for obtaining the unemployment benefit included expansion of eligibility to all individuals who lost their job for any reason (on their side or the side of the employer) in March and April. Unemployment benefit eligibility criteria were previously considerably more stringent. This group of interventions further included one-time financial support for GMA recipients and active registered unemployed with MKD9,000 and low-pay workers (who over 2019 and 2020 received an income below MKD15,000 per month) and youth (16-29) in regular education with MKD3,000. Hence, only one income-related measure directly targeted children (0-17), and that one only marginally.

Designed this way, direct measures pertinent to children remain scant and do not cover all risks potentially affecting children. In addition, only two of the eight measures directly relevant to children have fiscal implications: the extension of parental leave from work due to pregnancy, childbirth, parenting and adoption; and the one-time financial support for youth (16-29). Some of the risks not covered by the direct child-related measures have been covered through indirect measures targeting workers and households as a whole. Wage and social-contribution subsidies, the relaxed eligibility criteria for GMA, and the one-off financial support secured a minimum living income, while children in these households have been indirectly protected from material deprivation.

Further indirect measures addressed the risk of not having access to services for materially-deprived households including children, by: i) expanding health coverage for persons who had been denied coverage by the compulsory health insurance, to be able the use of health services related to the diagnosis and treatment of coronavirus through the Health Insurance Fund, ii) postponement of rent payment liability for social housing, and iii) cash allowance to cover part of the cost of energy consumption for April through

September 2020. All these measures affected children in multiple ways: by not allowing some households to fall into poverty, by ensuring that children have access to Covid-19 testing and treatment, and by providing minimum access to services. While providing a broader risk mitigation, the indirect measures have stronger fiscal implications as half of them imply some kind of payments by the government.

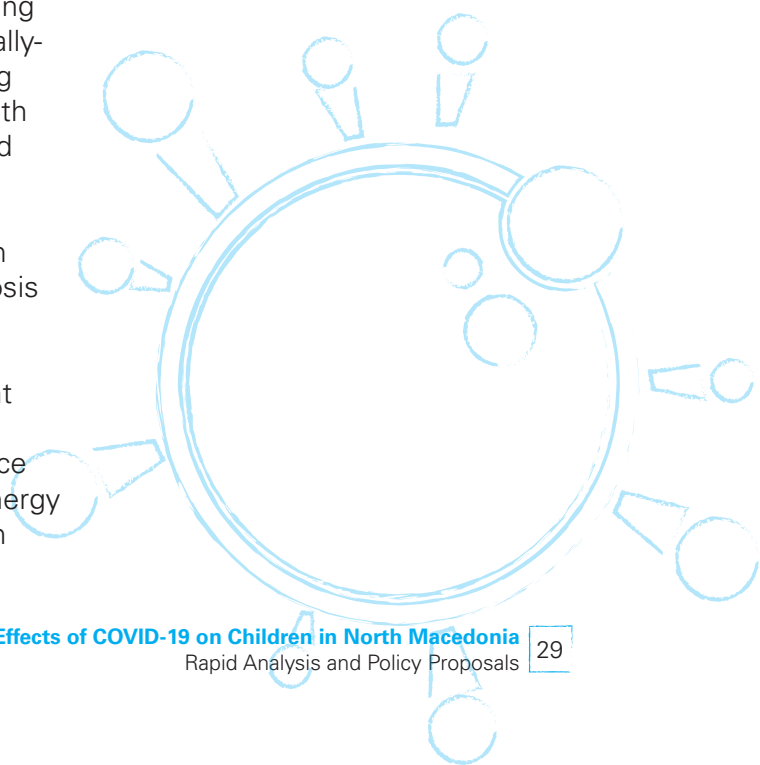


Table 1: Child-related policy measures to cope with COVID 19

Risks	Policy measure	Targeting (children-wise)	Fiscal implications	Sector (children-wise)
Direct child related policy measures				
Risk of spreading infection	School closure	School-age children	X	Education
	Canceling State Matura Exam	High school graduates	X	Education
	Pre-school facilities closure	Pre-school children	X	Education
	Extra-curricular activities closure	All children	X	Education
	Extension of paid parental leave from work due to pregnancy, childbirth, parenting and adoption continues to be paid until the expiration of temporary measures against the spread and prevention of COVID-19.	Newborns and children	√	Social protection
	Extension of the deadlines set in the Child Protection Law for submitting a request to fulfill the right to a one-time financial assistance for a newborn, request to fulfill / extend the right to parental allowance (third and fourth child) and to special child allowance, as well as for checking the school attendance criteria for payment of the education allowance.	Children	X	Social protection

Table 1: Child-related policy measures to cope with COVID 19

Risks	Policy measure	Targeting (children-wise)	Fiscal implications	Sector (children-wise)
Income loss	One-time financial support with a payment card for purchase of domestic products in the amount of MKD3,000	Youth 16-29 in regular education (state schooling only)	√	Social protection
Reduced access to services	Provision for working parents (one per household) of children up to 10 years of age to be on paid leave	Employed parents of children aged 0-10	X	Social protection
Deterioration the learning process	Switching to distance learning	Children	X	Education
	Education through lectures broadcasted on the national TV	Children	X	Education
Indirect child related policy measures				
Risk of spreading infection	Border closure	All citizens	X	Health
	Partial lockdown	All citizens	X	Health
	Isolation – quarantine	Infected and persons who have been in contact with infected persons	X	Health
Income loss	Social protection during the state of emergency through relaxed eligibility criteria for GMA	Materially deprived households with income lower than GMA	√	Social protection
	Employment retention through subsidizing social contributions for companies affected by COVID-19, for the months of April to June 2020	Employees in affected companies (roughly, those with revenue loss >30%)	√	Social protection

Table 1: Child-related policy measures to cope with COVID 19

Risks	Policy measure	Targeting (children-wise)	Fiscal implications	Sector (children-wise)
	Employment retention through financial support for companies affected by the health and economic crisis caused by COVID-19, for payment of wages for April to June 2020 at a maximum of MKD14,500 per worker	Employees in affected companies (roughly, those with revenue loss >30%), with three-month average salary below MKD39,900	√	Social protection
	One-time financial support with a payment card for purchase of domestic products in the amounts of MKD3,000 (low-pay workers) and MKD9,000 (GMA recipients and unemployed)	Individuals with low income, recipients of GMA and unemployed	√	Social protection
	Expansion of unemployment benefit coverage through relaxed eligibility rules	All individuals who lost their jobs between 11 March and 30 April	√	Social protection
Reduced access to services	Postponement of rent payment liability for social housing	Tenants of social apartments	X	Social protection
	Cash allowance to cover part of the cost of energy consumption for April to September 2020	Materially deprived households with income lower than GMA	√	Social protection
	Expanded health coverage	All citizens	X	Health
<i>Source: Official Gazette of the Republic of North Macedonia</i>				

2.1.2. Fiscal distributional cost

As indicated in Table 1, some of the Covid-19 policy measures have fiscal implications. The extension of the parental leave from work due to pregnancy, childbirth, parenting and adoption is the only measure directly targeting children with fiscal implications (aside from the marginal implication for children 0-17 of the one-off financial support for youth 16-29). **Table 2** presents existing data about the coverage and planned or spent funds on the Covid-19 measures. It suggests that approximately EUR1.6 million have been additionally budgeted by the Health Insurance Fund to cover the cost of the extension; this cost is likely to increase if an additional extension is mandated at the beginning of June 2020. About 2,200 beneficiaries are being covered. Most of the funds have been spent on the employment-retention measures, which also have large coverage. On the other hand, the additional coverage of and spending for GMA remains very low, at least by the end of May, despite application submission in June 2020 intensified.

The next three tables deepen the analysis of the effects of Covid-19 policy measures on children by looking at the distribution of additional payments among families with different numbers of children. We have simulated the costs of the three groups

of policy measures indirectly affecting children – the relaxation of GMA criteria, employment retention measures, and the one-off financial support – and used SILC data for assessing the distributional impact on children. Calculations related to the expansion of the unemployment benefit were not made, since labor-market transitions (losing a job) for particular types of contract termination are not observed in SILC data.

As calculations presented in **Table 3** indicate, the pre-Covid-19 simulated annual GMA spending (including the energy subsidy) amounted to about EUR22 million, while the power of the relaxed criteria is assessed at additional EUR6.6 million annually, major part of the increase being explained by the income reduction of individuals, rather than by the relaxed property ownership criteria. It should be noted that these numbers are the theoretical maximum implying that all newly eligible recipients apply for GMA. Moreover, it is apparent that the simulated GMA spending is lower than the actual spending, which is mainly due to the inability of the simulation to precisely capture property ownership and to simulate one-off GMA-related allowances.

Table 2: Fiscal cost of Covid-19 policy measures

Policy measure	Covered period	Number of beneficiaries due to Covid-19	Average cost per beneficiary (MKD)	Total spending due to Covid-19 (mil. MKD)
Extension of the parental leave from work due to pregnancy, childbirth, parenting and adoption	11 March – until revoked	2,200 individuals*	45,455	100*
Relaxation of criteria for GMA, incl. expansion of energy subsidy	1 April – 31 May 2020	231 households	10,767	2.5
Relaxation of the criteria for obtaining unemployment benefit	11 March – 30 April 2020	3,796 individuals**	17,327	49.8***
Employment retention through financial support of companies with MKD14,500 per worker	1–30 April 2020	134,201 workers	13,986	1,877.0
	1–31 May 2020	124,054 workers	13,792	1,733.2
	1-30 June 2020	79,219 workers	13,935	1,103.9
Employment retention through subsidizing social contributions	1–30 April 2020	2,531 companies	n.a.	n.a.
	1–31 May 2020	2,463 companies	n.a.	n.a.
	1-30 June 2020	2,101 companies	n.a.	n.a.
One-off support for individuals with low income	One-time effective on 1 June 2020	324,479 individuals*	5,307	1,722*

Source: Health Insurance Fund; Public Revenue Office; Ministry of Labor and Social Policy; Employment Service Agency.

** Refers to an estimated number by the government.*

*** Refers to requests for obtaining the right to unemployment benefit only due to the respective Decree, submitted to ESA. 2,957 requests have been approved by July 2, 2020, 1 rejected, while 838 processed.*

**** Numbers refer only to the cost of the approved applications.*

However, of particular interest is the differential impact, not the level of spending per se. The additional projected funds for this measure are far above the April-May 2020 spending, which is likely a result of the very low awareness of the expanded coverage, especially among the most vulnerable (also corroborated by the intensified application submission observed in June 2020). The table also presents the distributional impact of the additional funds to be spent and finds these are fairly proportional to the distribution of the households per their number of children, with the exception of the households with three or more children. The latter receive significantly more of the additional funds than their share in total households and hence, from that viewpoint, the policy measure could be considered pro-children. Considering that poverty is the highest among households with 3+ children, the GMA expansion could be considered strongly pro-poor.

Table 4 simulates the monthly cost of the employment retention measures given the rules specified in the respective decrees. At present, they are in force for three months, so that the total estimated cost is triple the one presented in the table. The sectoral impact classification from ILO/EBRD (2020) is used, assigning 15 per cent, 35 per cent

and 90 per cent of the companies impacted medium, medium-high and high, respectively, to have experienced revenue reduction exceeding 30 per cent. Further to this, it is assumed that all companies opted for the financial support of MKD14,500 per worker, while only companies in tourism, hospitality and transport utilized both, as per the decree provision. The results suggest that the measure covers about 181,000 of workers, representing the theoretical maximum and hence being somehow above the actual figure¹⁰ of about 124,000 – 134,000 workers. Likewise, the estimated monthly cost which ranges between EUR37 and 43 million, is above the realized cost of EUR28.2 million for April 2020 and EUR30.5 million for May 2020. With the economy's reopening, the numbers further declined in June 2020. The coverage of the social-contributions subsidy is estimated at about 20,000 workers (about 3,000 companies) and EUR0.7 million monthly, which is also above the realization, albeit information on the cost were not obtained.

¹⁰The disbursement figure differs from the theoretical maximum *inter alia* because the latter does not take into account any behavioral effects, such as decision by the companies not to apply although eligible, being denied because of late or incomplete submission and so on.

Table 3: Fiscal implications of relaxed GMA eligibility criteria, by number of children in the household- annual

No children in the receiving household	Share of households	Simulated spending based on 2020 rules (mil. MKD)	Simulated spending with relaxed criteria (mil. MKD)	Additional funds needed due to Covid-19 (mil. MKD)	Share of Covid-19 social assistance
0	62.4%	628.8	874.5	245.7	60.6%
1	17.0%	197.1	263.7	66.6	16.4%
2	14.2%	124.8	146.2	21.4	5.3%
3	4.5%	331.7	363.3	31.6	7.8%
4 or more	1.9%	82.8	123.2	40.4	10.0%
TOTAL	100.0%	1,365.2	1,770.9	405.7	100.0%

Source: Authors' calculations based on 2018 SILC data.

The analysis of the distribution of the impact of employment-retention measures presented in **Table 4** suggests that these measures are slightly pro-children, as households with one and two children, in particular, receive higher share of the funds than their share in total households. This result does not stem from the design of the measures (which are unrelated to children), but probably from the higher incidence of working parents (as compared to working singles) in the left part of the wage distribution.

Finally, **Table 5** presents the cost of the one-off support measures. The total cost is estimated at about EUR31 million, being above the government projection of EUR28 million. In terms of the distribution, the measure is likewise pro-children, as higher proportional shares of the funds go to households with children.

Table 4: Fiscal implications of the employment retention measures, by number of children in the household- monthly

No children in the receiving household	Share of households	Workers affected	Of whom: Workers in tourism, transport and hospitality	Cost of MKD 14,500 measure (lower bound, mil. MKD)	Cost of MKD 14,500 measure (upper bound, mil. MKD)	Cost of SIC50% assistance in most-affected sectors (mil. MKD)	Share of Covid-19 employment-retention assistance (average)
0	62.4%	97,232	11,064	1,233.6	1,409.9	23.2	53.6%
1	17.0%	39,494	4,794	501.1	572.7	10.0	21.8%
2	14.2%	32,094	3,586	407.2	465.4	7.9	17.7%
3	4.5%	8,056	519	102.2	116.8	1.2	4.4%
4 and more	1.9%	4,608	144	58.5	66.8	0.1	2.5%
TOTAL	100%	181,483	20,107	2,302.6	2,631.5	42.5	100%

Source: Authors' calculations based on SILC.
Note: The MKD14,500 measure has lower and upper bound because if the employer decided to lay-off workers temporarily due to force majeure, he would be entitled to pay 50 per cent to 80 per cent of the salary. For simplicity, in the lower bound the assumption is used that half of the employers request 75 per cent of the financial assistance.

Table 5: Total and distributional fiscal implications of the one-off financial support

No children in the receiving household	Share of households	Funds spent for one-time support	Share of Covid-19 one-off support
0	62.4%	956.8	49.4%
1	17.0%	448.4	23.2%
2	14.2%	275.9	14.3%
3	4.5%	148.6	7.7%
4 and more	1.9%	106.1	5.5%
TOTAL	100%	1,935.8	100%

Source: Authors' calculations based on SILC.

2.2. POLICY RESPONSE TO COVID-19 THROUGH STATE BUDGET REALLOCATIONS

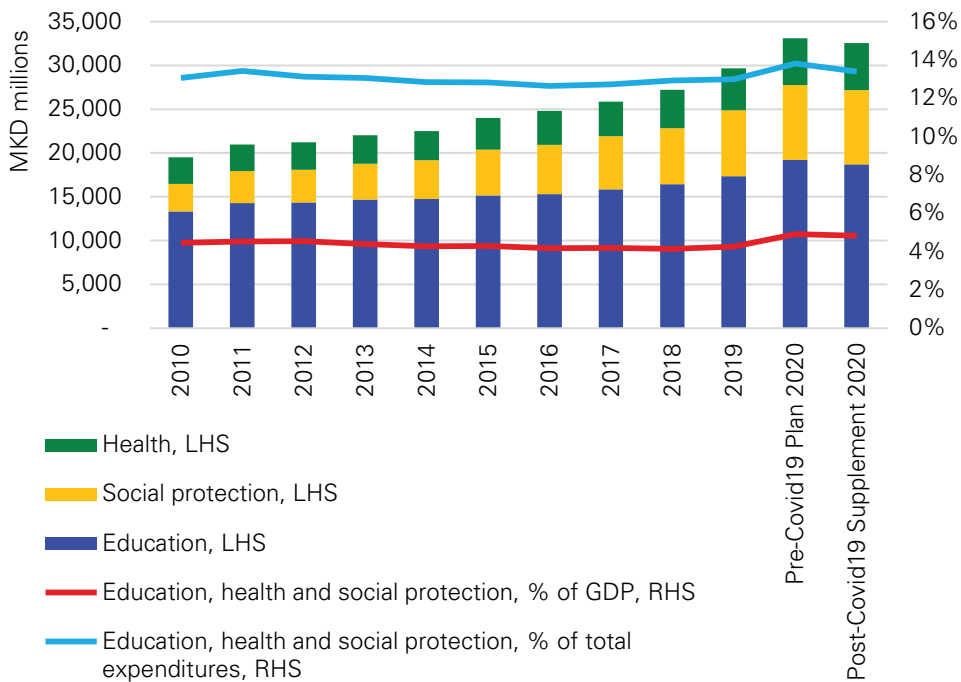
The initial financial response of the government to the Covid-19 outbreak consisted of reallocations within the existing budgets. Most notably, the Ministry of Health immediately transferred funds from preventive programs to the Covid-19 response to enable unhindered procurement of medical supplies and equipment for healthcare providers. The Health Insurance Fund also allocated funds to the most affected public health institutions in the amount of 1.3 million euros. This support included the frontline providers like the Infectious Diseases Clinic, Institute for Public Health, Centers for Public Health, hospitals providing treatment for infected patients and other providers that have been directly or indirectly affected in the initial wave of infection.

The Budget Supplement, imposing larger reallocations was adopted later, in mid-May 2020, integrating previous reallocations. While it certainly maintained or even increased the funds to support the health response to the crisis – inter alia projecting a two-month 20 per cent increase of healthcare workforce salaries – it perpetrated important cuts affecting children.

A recent study (Petreski and Petreski, 2018) found that government spending on children before the pandemic did not follow the general increase of government expenditures. **Figure 1** shows that the total budget funds allocated to programs for children increased between 2000 and 2019, albeit their shares in GDP and in total government expenditures stagnated at best. Still, the pre-Covid-19 budget plan for 2020 projected an increase of spending for children to EUR 538.1 million, representing 4.9 per cent of GDP. Disappointingly, the Budget Supplement of May 2020 cut allocated funds for child-related programs. With the economy shrinking, such cuts appear minor as a share of GDP and total expenditure.

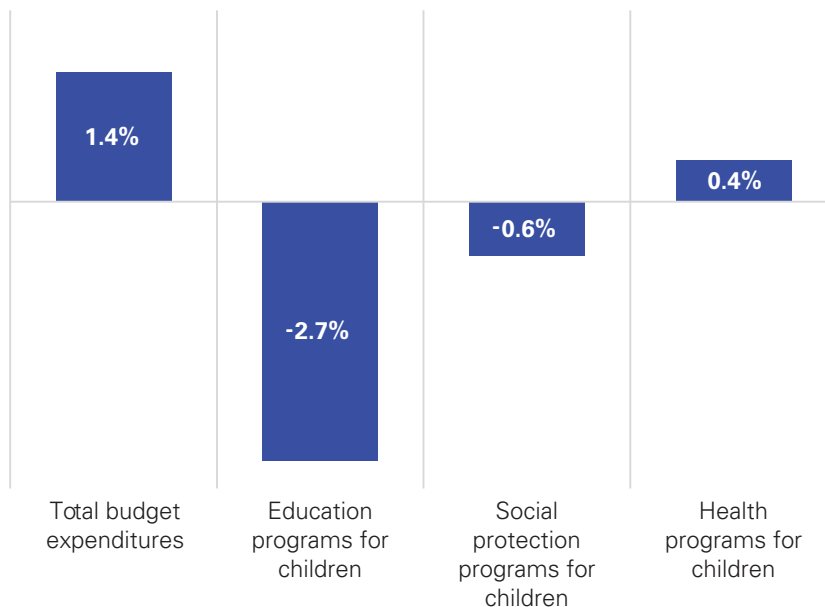
Figure 2 gives a clearer picture of the Budget Supplement. The total public spending increased as a result of the urgent needs for financing the response to Covid-19, yet planned spending dropped by 2.6 per cent for education programs and by 0.6 per cent for social protection. The spending on health programs for children increased by 0.4 per cent.

Figure 1: Budget spending on child-related programs



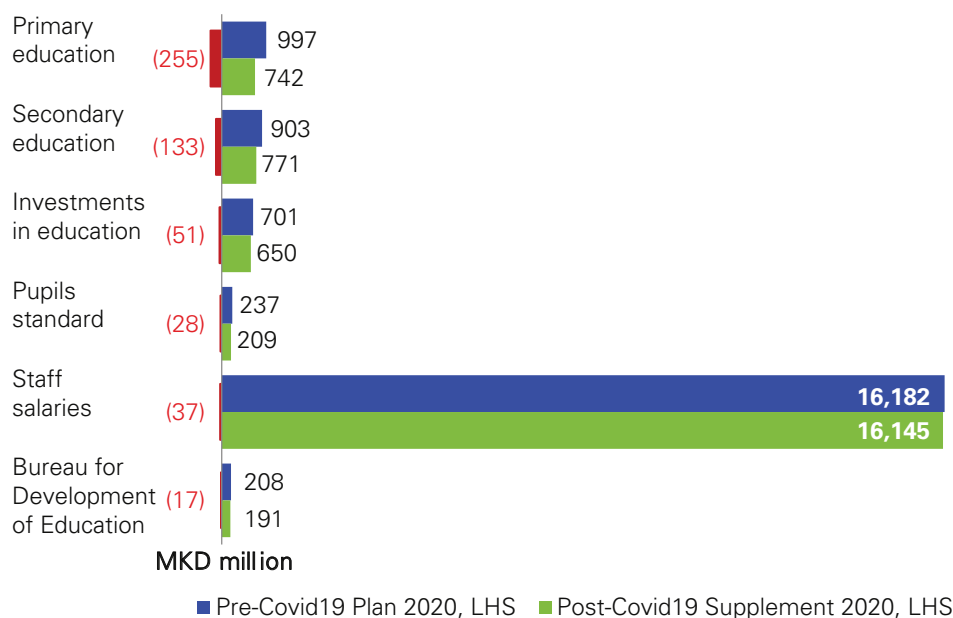
Source: Ministry of Finance: State Budget for 2010-2020.

Figure 2: Changes within the Budget Supplement 2020 in planned expenditures



Source: Ministry of Finance: State Budget for 2020- Initial Plan and Budget Supplement.

Figure 3: Changes to planned expenditure on education, May 2020 Budget Supplement



Note: Reduction in allocations, in millions of denars, is shown in red.

Source: Ministry of Finance: State Budget for 2020- Initial Plan and Budget Supplement.

Figure 3 details the reallocations in education. Primary education has been the most affected with a reduction of 26 per cent. Expenditure on secondary education has been reduced by 14 per cent, while funds for investment and for educational standard – by 12 per cent and 7 per cent, respectively. Still, one should note that education cost reduction may also be a result of school closure. It is nevertheless worrying that despite a pressing need for staff capacity development, the budget the Bureau for the Development of Education has been cut by 8 per cent, including the expenditures

on professional development of staff in primary and secondary education. Still, staff salaries remained intact, which is particularly suggestive given that 85 per cent of total spending in education falls into this category.

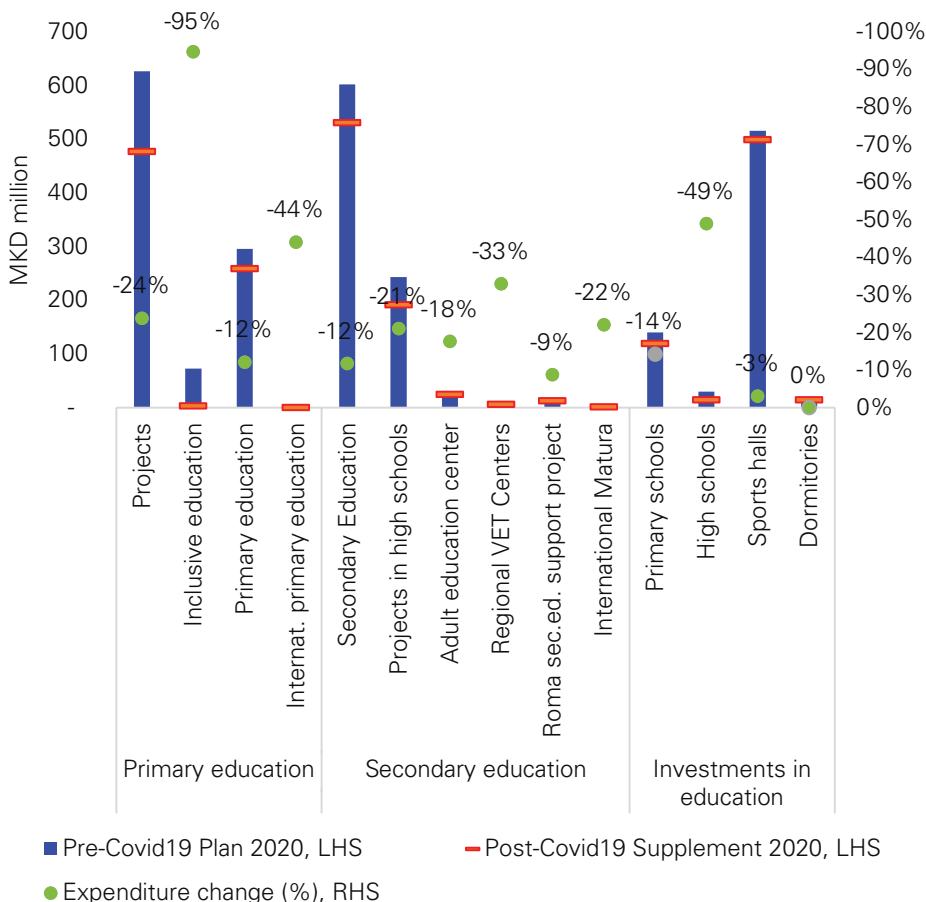
The switch to distance learning and the dramatic change in teaching following the Covid-19 outbreak remains a crucial challenge for the next school year 2020/2021, while the cuts in planned expenditure create a risk of lack of funding in case the need for investment in alternative ways of teaching in primary and secondary schools soars.

Petreski and Petreski (2018) have shown that even before Covid-19 investments in development programs (infrastructure investments, inclusive education and projects¹¹) were already marginalized and for years there were no structural changes to improve this situation. The changes effected by the Budget Supplement 2020 again defund development programs.

Although the overall spending cuts are not dramatic, the cut in the development component is heavy (Figure 4).

¹¹In the past decade, different measures have been implemented; for example: a tablet for every child, internet in every school, computer for every child, external testing, etc. However, it is not entirely clear whether these types of projects are financed from the budget line "projects".

Figure 4: Changes to planned expenditure on educational programs, May 2020 Budget Supplement



Source: Ministry of Finance: State Budget for 2020- Initial Plan and Budget Supplement.

The larger reduction in absolute terms expectedly stems from the programs with larger allocations. Infrastructure investments in primary and high schools have been reduced significantly. This certainly limits the capacity of the Government to invest in emerging and urgent needs for schools' physical adaptation to the pandemic. In addition, inclusive education sustained a heavy blow under Covid-19 as its original allocation was reduced by astonishing 95 per cent. As a result, vulnerable pupils may lose access to services provided within that particular program.

Social protection spending on children decreased by 0.6 percent (**Figure 5**, upper panel). However, in contrast to the cuts in education spending, overall social protection spending has been largely unaffected by cuts. While this is positive, it may be actually a reflection of the lack of direct child-related policy measures with fiscal implications (see Table 1). In addition, child allowances and staff salaries have been maintained at the expense of the development component of the social protection of children: funds for construction, equipment and maintenance of pre-school and child-protection facilities were reduced by 24 per cent (**Figure 5**, lower panel). As in the case in the education sector, such expenditure cuts further shrink funding capacities of pre-school

facilities to adapt amid lingering crisis and potential second pandemic wave in the autumn.

Health spending on children increased by 0.4 per cent (**Figure 6**), mainly due to reallocations to increase the budget of the Health Insurance Fund. It reflects the additional Covid-19 spending, including the policy measure for extension of paid parental leave from work due to pregnancy, childbirth, parenting and adoption. The spending on rare diseases is the only category suffering a cut.

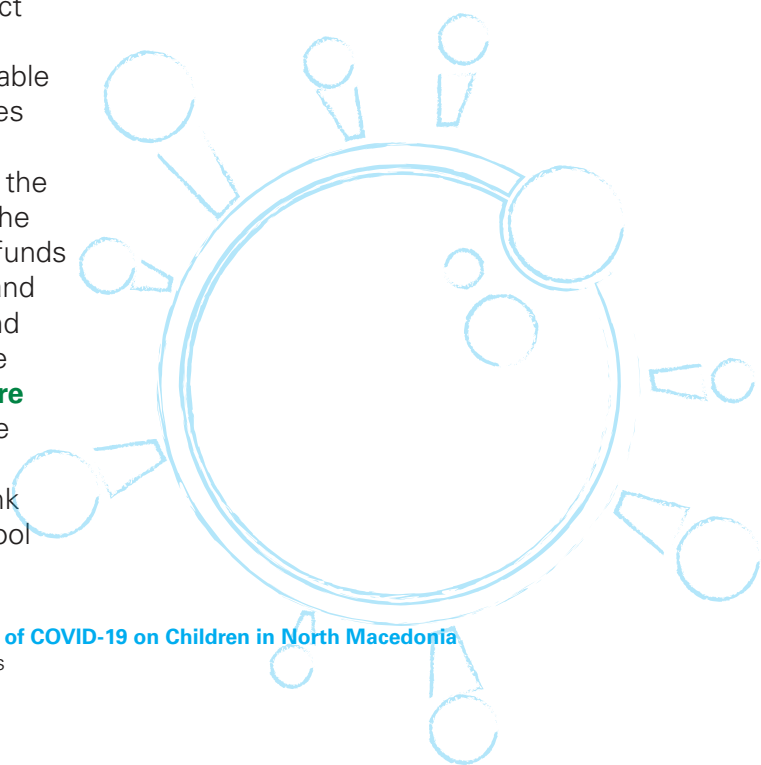
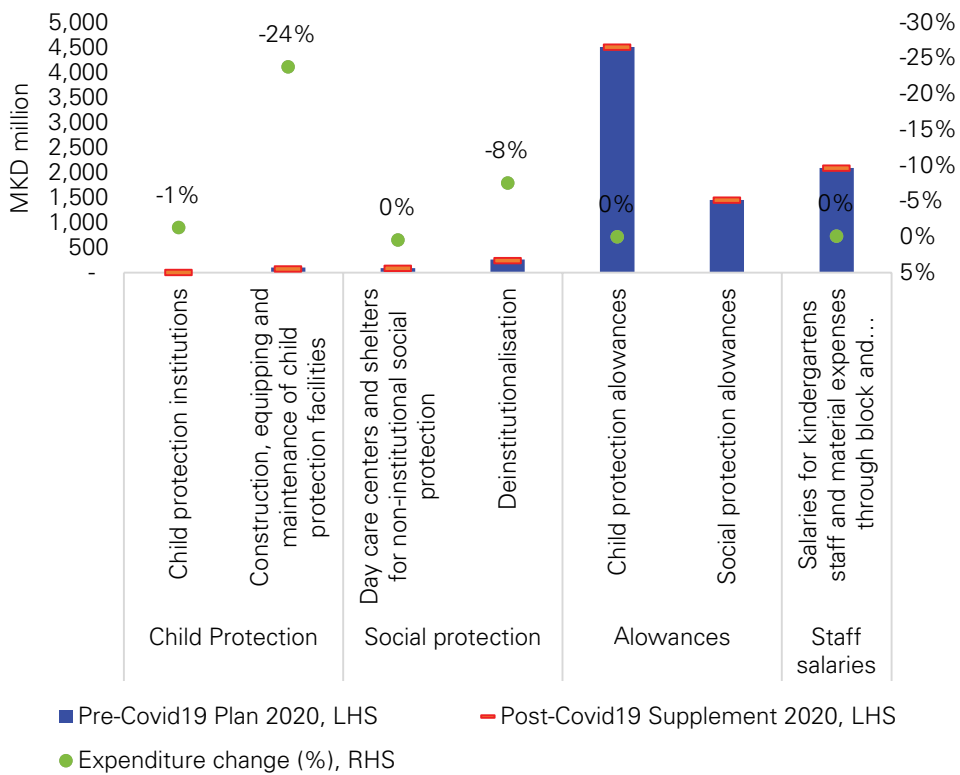
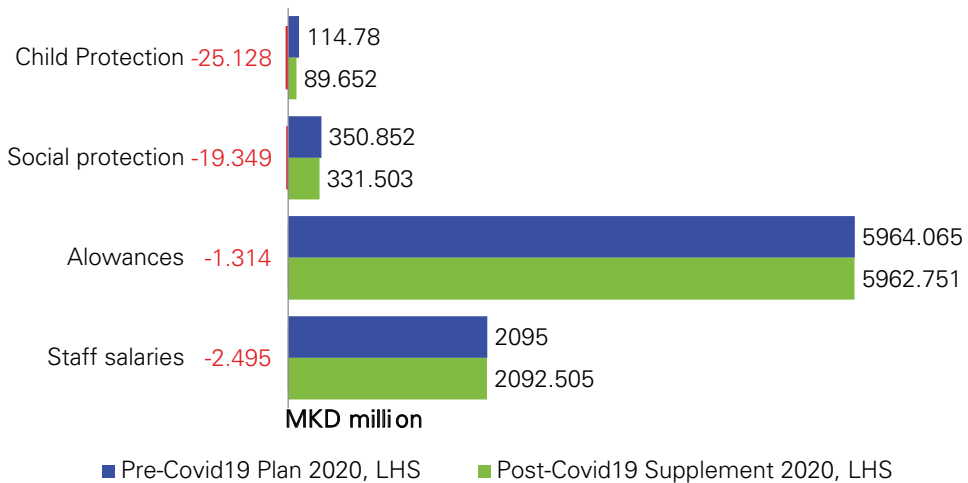


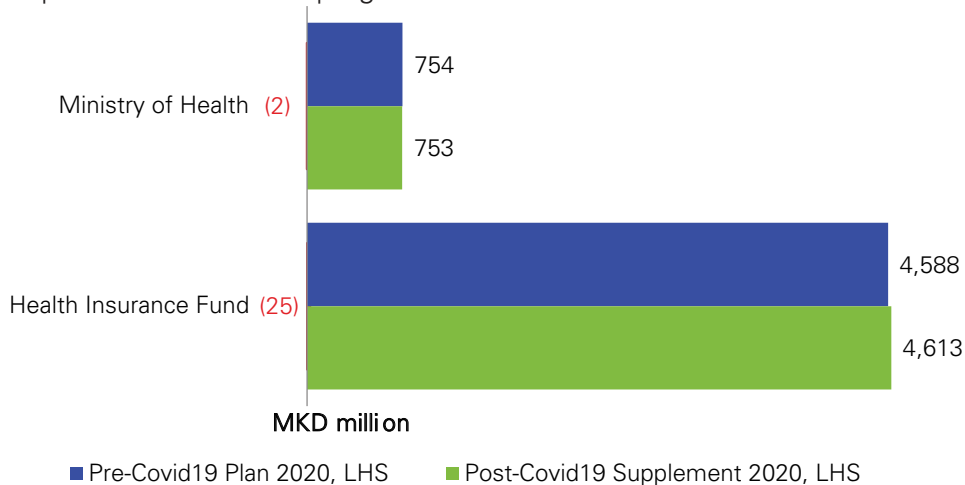
Figure 5: Changes to planned expenditure on social protection of children, May 2020 Budget Supplement



Note: Reduction in allocations, in millions of denars, is shown in red.

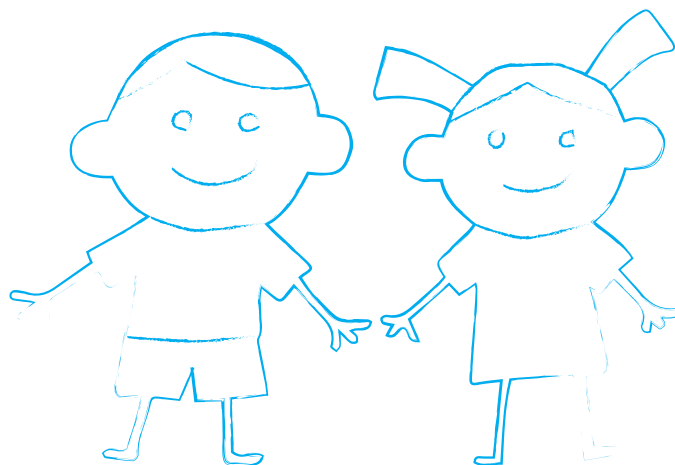
Source: Ministry of Finance: State Budget for 2020- Initial Plan and Budget Supplement.

Figure 6: Changes within the Budget Supplement in planned expenditures on health programs



Note: Reduction in allocations, in millions of denars, is shown in red.

Source: Ministry of Finance: State Budget for 2020- Initial Plan and Budget Supplement.



2.3. THE FISCAL CAPACITY TO MITIGATE THE EFFECTS OF COVID-19

The Covid-19 pandemic prompted the Government to introduce policy measures to contain and mitigate its negative effects. According to ILO/EBRD (2020), food and beverages services, retail, transport, warehousing, personal services, food manufacturing, construction and related specialized activities, and services to buildings have been the most affected sectors. Three-quarters of employees and companies in North Macedonia have been hit. The self-employed and micro-businesses are in a critical situation (Finance Think, 2020), as they were either shut completely or had to drastically reduce their activity, while having low crisis buffers.

Such developments have negatively affected the state budget. Due to reduced economic activity, budget revenues decreased significantly in April and May, with a forecast annual decrease of 11.5 per cent compared to the initial budget plan 2020 (Ministry of Finance, 2020). On the other hand, the Government increased budget expenditures pertinent to the Covid-19 response. This resulted in the budget deficit of 6.8 per cent of GDP, compared to the initial plan of 2.4 per cent, an absolute increase of EUR529

million. In addition, there is a looming financial need stemming from the repayment of foreign debt amounting to EUR1.22 billion due over the course of the next two years, of which EUR477 million is due in 2020. It was clear even at the onset of the crisis in March that the borrowing need increased instantly and that borrowing at home significantly constrained the space for conducting a loose monetary policy. Hence, while the first attempt to borrow from the private markets (the so-called “bridge-to-bond” loan) of about EUR400 million failed due to rapidly tightening conditions, it was then made possible for North Macedonia to use its quota within the IMF of USD176 million. Swiftly, the World Bank reorganized its borrowing window of USD140 million, similar moves by the EBRD and the EU followed. After market conditions moderated, the Ministry of Finance issued a Eurobond in the amount of EUR700 million at the end of May. While securing financing needs, these moves increased public debt, with estimations ranging from 56 per cent to 58 per cent by the end of 2020, up from the 48 per cent a year ago. Representing a significant burden, such a result limits the fiscal space for crucial public investment and public service delivery in the medium run.

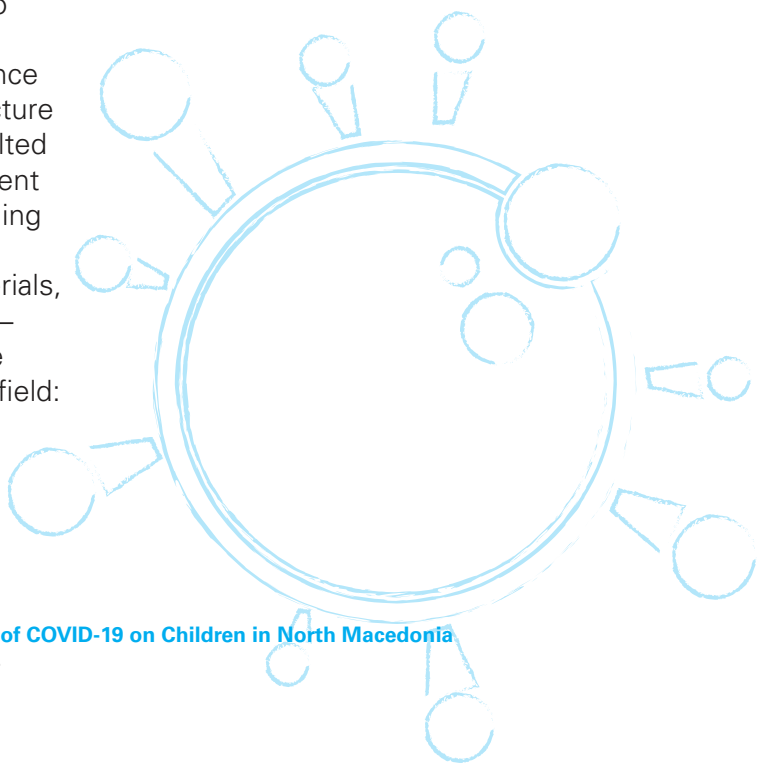
Such fiscal consequences of the Covid-19 crisis will be limiting the mid-term fiscal space for child-related programs. Considering the behavioral pattern of the budget design and investment prioritization in the last decade, the child-related developmental component is at the highest risk of cuts and reallocation, especially investments in construction and reconstruction of pre-school and school facilities, and funds aimed at elevating the quality of service delivery. Additionally, there will be intensified needs for additional resources (human resources, materials, soft skills, digitalization) to cope with any lingering Covid-19's effects in early childhood education, schooling and healthcare for children.

The needs assessment identified different essentials for each sector. The representatives from the education sector highlighted the needs for better access to internet and for soft skills for teaching staff to deliver distance learning. Due to the age structure of teaching staff, frequently tilted towards higher ages, insufficient digital skills- using and switching between online platforms, preparing and uploading materials, real-time delivery of teaching – remain a key challenge. In the words of a practitioner in the field:

“WE ALL HAVE SOME KNOWLEDGE OF THE INTERNET, BUT WE NEED AN IN-DEPTH AND COMPREHENSIVE DISTANCE-LEARNING TRAINING. TO PROVIDE THE TEACHING STAFF WITH THAT... IT SHOULD NOT BE A ONE OR TWO DAYS OF SEMINAR, BUT A LONG-TERM TRAINING”.

An expert in the field agrees that the upgrade of skills and capacity for distance education is the highest priority, while pointing out that distance-learning delivery must be unified system-wide:

“CURRENTLY, WE HAVE ISOLATED CASES WHERE, FOR EXAMPLE, IN PRILEP AND STRUMICA, TEACHERS DELIVERED TRUE ONLINE CLASSES AND CHILDREN KNEW THAT THEY WILL BE ‘IN THE CLASSROOM’ BETWEEN 9 AM AND 12 PM. HOWEVER, THIS IS NOT THE CASE WITH ALL SCHOOLS, WITH ALL TEACHERS, FOR ALL CHILDREN!”



The same conclusion emerged from the Bureau for the Development of Education, which notes:

“WE MUST BE PREPARED FOR POTENTIAL EXTENSION OF THE DISTANCE TEACHING, TO TIMELY TRAIN TEACHERS, WHERE SUCH TRAINING WILL START NOW AND WILL CONTINUE UNTIL THE NEXT SCHOOL YEAR STARTS”.

Access to internet and technical equipment are relevant for both children and the teaching staff. Equally necessary is to ensure that they all access a licensed, unified online platform. [This implies continuous investment in upgrade of the existing platform]. In addition, the coordination mechanism among all the stakeholders in the distance-learning process must be improved. Distance learning is sure to heighten the need for additional resources during the summer months of 2020, which is likely to create a further fiscal pressure on the budget following the cuts in the education sector in the Budget Supplement of May 2020.

In the social protection sector different kinds of needs have been identified, but the need to adapt pre-school facilities to distance-maintaining protocols is the top priority. The stakeholders involved in policy design point out the main challenges:

“IN KINDERGARTENS, GROUPS ARE LARGE, ESPECIALLY FOR CHILDREN 3-6. WITH THE PROTOCOL, A DISTANCE OF 1.5-2 METERS BETWEEN TABLES SHOULD BE MAINTAINED. HENCE, ADAPTATION OF KINDERGARTENS’ SPACE WITH ASSUMED 20 CHILDREN PER GROUP REMAINS A CRITICAL CHALLENGE”.

The adaptation will be particularly challenging given the education infrastructure investment cuts in the 2020 Budget Supplement.

Further, the closure of pre-school facilities affects social services delivery in the country, due to staff shortages. A Ministry of Labor and Social Policy (MLSP) representative mentions that there have been difficulties in service delivery as a result of limited human resources due to leaves for parents of children up to the age of 10. Moreover, both human and financial resources were identified as insufficient for the other social protection provisions and services.

“HUMAN RESOURCES ARE ALWAYS NEEDED, ESPECIALLY DURING A PANDEMIC. FOR EXAMPLE, THERE WERE TIMES WHEN ALL THE TEAMS WENT TO WORK OFF-SITE, WHICH HAD NEVER HAPPENED BEFORE”.

Several sectors at the social forefront of the Covid-19 crisis – most notably the Sector for Social Protection within MLSP and the Centers for Social Work – identified needs for greater institutional coordination and co-operation with local authorities.

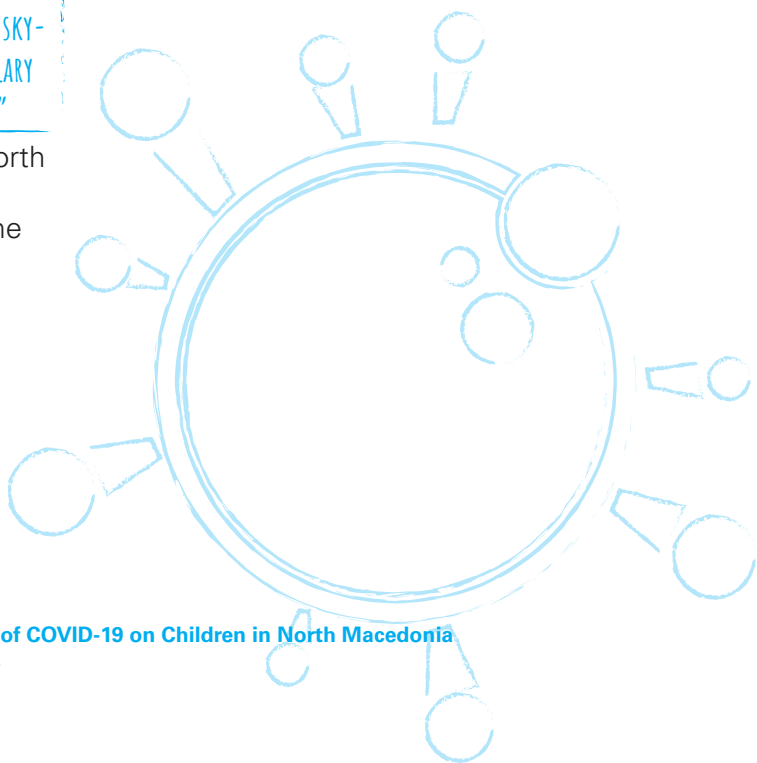
It was Centers for Social Work that stressed the need for additional resources to manage the impact of the crisis on the most vulnerable children.

In the health sector, the need for personal protective equipment for infection prevention is the highest. The protective equipment mainly consists of items worn and used to protect healthcare workers: gloves, masks, gowns or coveralls, face shields, head covers, rubber boots, disinfectants. The General Practitioners (GPs) surveyed for this analysis mentioned that the quantity of essential protective equipment provided by the Ministry of Health has been insufficient. Additionally, prices of these goods increased while health workers were frequently obliged to pay for such items themselves:

WE PROCURED THE PROTECTIVE EQUIPMENT OURSELVES AND IT WAS DIFFICULT, ... WE DID NOT HAVE DONATIONS, PRICES OF MASKS SKYROCKETED. HENCE, OUR 15 PER CENT SALARY INCREASE MELTED WITH THE CORONA"

However, at this point, it is worth mentioning that donations in funds and in kind (mainly of the items pointed out as scarce), from the EU, other countries, development agencies, the corporate sector and citizens intensified. As of beginning of June 2020, total donations amounted to EUR3.3 million.

It follows from the discussion that the financial pressure overall, and particularly on child-related spending and programs, will be intensifying, especially if the crisis continues in the autumn. The increasing financial needs in the three sectors - education, healthcare and social protection - will confront the limited fiscal space as well as a growing budget deficit and public debt. Setting spending targets in the key child-related areas for the next years may help in medium-term planning and mitigation of Covid-19 crisis' negative effects on children. Specifically, policymakers should aim at preserving spending in child-related budget lines at least at the level of the initial 2020 budget.





3. CHILDREN FACE SOCIAL RISKS AND FALL INTO POVERTY

Social risks and challenges experienced by children in North Macedonia during the Covid-19 pandemic are both direct and indirect. Direct social risks have been caused by the closure of day-care facilities, including pre-school facilities, schools, as well as day-care centers such as those for the children with disabilities. Restrictions on movement have also directly impacted the rights and needs of children without parents and parental care or children of divorced parents to establish and maintain regular contacts with either their relatives or with the parent who is sharing the parental right. Indirect risks

are associated with the loss of job or decreased economic opportunities among household members, leading to increased financial insecurity as well as risk of poverty and material deprivation among children.

This chapter assesses the provision of social services, as well as the demand for and delivery of cash benefits for children and/or families with children during the first months of Covid-19 pandemic (March-May 2020). The chapter aims to determine the types of social risks children face, as well as the profile of vulnerable categories

of children in North Macedonia during the pandemic, so that these risks and vulnerabilities can be readily addressed during the second expected peak of this pandemic, or during future crises involving multiple risks for child wellbeing. In a separate section, the chapter makes quantitative estimate of how the child poverty rate may have evolved as a result of Covid-19.

3.1. SERVICES FOR CHILDREN AND FAMILIES DURING COVID-19

Early Childhood Education and Care. Since March 11, 2020, all pre-school facilities for childcare and education in North Macedonia (kindergartens, centers for early child development) have been closed to prevent the spread of Covid-19. This affects close to 40,000 children cared for and educated in 109 pre-school facilities (State Statistical Office, 2019).

Closure of pre-school facilities due to the pandemic happened when the Government had been trying to expand pre-school infrastructure and attendance, particularly in rural areas and among Roma, by adapting available public infrastructure with shortened programs for pre-school children (Program for the development of child protection in 2020). Data from the Multiple Indicator Cluster Survey (MICS)

for 2018-19 show that only 45.8 per cent of children in North Macedonia, one year younger than the official primary school entry age, attend early childhood education program. Low early childhood education attendance is evidenced among children from rural areas (27.9 per cent), children from the poorest households (10.4 per cent) and children whose household head is of Albanian ethnicity (5.4 per cent). As most vulnerable families struggle to cope during the pandemic, further deterioration of access to early education and care, particularly among these households, is a looming risk.

Apart from the hindered access to pre-school facilities, the pandemic has also aggravated the food security and/or food poverty among children. According to Eurostat, in 2018, 49.5 per cent of children aged 16 and under were faced with food poverty (or inability to afford a meal with meat, chicken, fish or vegetarian equivalent every second day). This percentage was even higher among the age group 16 to 24 years, standing at 57 per cent. Free access to kindergartens, including free meals, is provided to children from households who have been affected by a natural disaster (i.e. fire, flood or earthquake), as well as for the children from the single-parent households that are beneficiaries of GMA. In addition,

approximately 200 Roma children are also beneficiaries of free access to pre-school education, based on a project between the Roma Fund, Ministry of Labor and Social Policy and the municipalities in the country. The last available data from the State Statistical Office indicate that in 2017 1.75 per cent of all children in the pre-school facilities and centers for early child development benefited from free access (State Statistical Office, 2018). The same source indicates that 19.2 per cent of the children were from families with only one parent working, while 3.4 per cent – from families with both parents unemployed.

To assist childcare during the pandemic, the Government adopted a Decision for exemption from work for (among others): single parents, one of the employed parents of children up to the age of 10, as well as the parents of children with disabilities that use day care centers. In addition, the Government adopted a decree (Official Gazette no.90/2020) to prolong the maternity leave for all working mothers until the end of the preventive Covid-19 measures (see Section 2.1.1).

Preparations for safe reopening of pre-schools according to the prescribed health protocols and in conditions of limited infrastructure involved a nation-wide survey that the Ministry of Labour and Social

Policy undertook among parents in all public kindergartens. The survey assessed the number of children that have the need to return to kindergarten immediately and of children that would return after the end of the measure for work exemption of one parent. The Head of the Sector for Child Protection within the Ministry of Labour and Social Policy presented the results whereby only 22 per cent of parents with children in kindergarten revealed an immediate need of kindergarten care, while 45 per cent responded that their children would return after the end of the exemption measure. The outcome of this survey indicates that health concerns among parents may contribute to further reductions in early childhood education attendance.

Day centres. As with other institutions and facilities, the pandemic closed the day centres in the country. Unlike cash transfers, there is a lack of a nationally harmonized database of social service beneficiaries and providers, which hinders the analysis of the profile of children (i.e. ethnicity, location, age, etc.) affected with the lockdown. According to a 2018 research (Bogoevska et al. 2019), there were 370 providers of social services in North Macedonia, of which 47.8 per cent were foster families, 18.6 per cent day centres, 9 per cent counselling

services and 1.9 per cent shelter centres. Based on the Ministry of Labour and Social Policy data¹², there are 25 day centres for children with disabilities, with approximately 400 beneficiaries, also including adults with disabilities. They are visited by children aged 5-18, receiving 8 hours of care daily.

Among those that closed were the day centers and social clubs for adolescents and adults with intellectual disabilities provided by the Republic Centre “Poraka” in Skopje (Aerodrom and Kapishtec), Radovish, Prilep and Shtip. After the closure they adapted the activities to be performed at home through telephone, video and online communication. These among other included:

“CONDUCTING PROGRAM ACTIVITIES AT HOME THROUGH GUIDANCE AND TASKS THAT MAINTAIN THE SKILLS AND CAPABILITIES OF THE BENEFICIARIES, MONITORED INDIVIDUALLY FOR EACH BENEFICIARY THROUGH TELEPHONE OR VIDEO CALLS; DIRECT PSYCHOSOCIAL SUPPORT (ADVICE, REASONING, ENCOURAGEMENT FOR EASIER UNDERSTANDING AND DEALING WITH THE SITUATION) TO THE BENEFICIARIES AND THEIR PARENTS VIA VIDEO OR TELEPHONE COMMUNICATION; AS WELL AS PSYCHO-SOCIAL SUPPORT TO PERSONS WITH INTELLECTUAL DISABILITIES AND THEIR FAMILIES, THROUGH A HOTLINE,”

explains the representative of the Centre for Support of Persons with Disabilities “Poraka”.

Apart from closures, children using day centers have also been affected by the restriction of movement to particular hours of the day. While the government responded to the initial request to exempt disability organizations from movement restrictions, limitations on movement conflicted with the therapeutic needs of the children for physical activity and outdoor tasks. Restricted mobility also impacted the regular movement of care givers and personal assistants, which further aggravated the provision of care for children with disabilities.

Throughout the pandemic crisis, day centers received active support from international governmental organizations, foreign donors as well as the national NGOs. In this respect, the continued partnership between UNICEF, the NGO Open the Windows and the British Embassy Skopje, resulted in training sessions for day-care centers’ staff related to designing the transition process of day-care centers into community-based support centers for children with disabilities and their families/ caregivers.

¹²Ministry of Labour and Social Policy, Day care centers for children with disabilities: [link](#), accessed 5th of June 2020.

Shelters for family violence. An increase in the reported cases of family violence since March 2020 is among the most visible outcomes of the lockdown measures. According to the Ministry of Interior statistics, “comparison between the reported cases during the months of April-May in 2020 and the same period in 2019, showed an increase of 44.6 per cent.”¹³ 9.6 per cent of all the reported cases of family violence in the 30 Centres of Social Work from March 15 to June 7, 2020, involved children (**Figure 7**).

The work of the Specialized team for dealing with urgent cases of vulnerable categories, under the jurisdiction of the Inter-Municipal Center for Social Work of Skopje, also revealed that

“90 PER CENT OF THE CASES IN THE LAST TWO MONTHS WERE RELATED TO FAMILY VIOLENCE IN WHICH CHILDREN WERE NOT DIRECTLY THE VICTIMS, BUT STILL REQUIRED PROTECTION.”

The team’s records also indicate that the rise is significant compared to before the pandemic

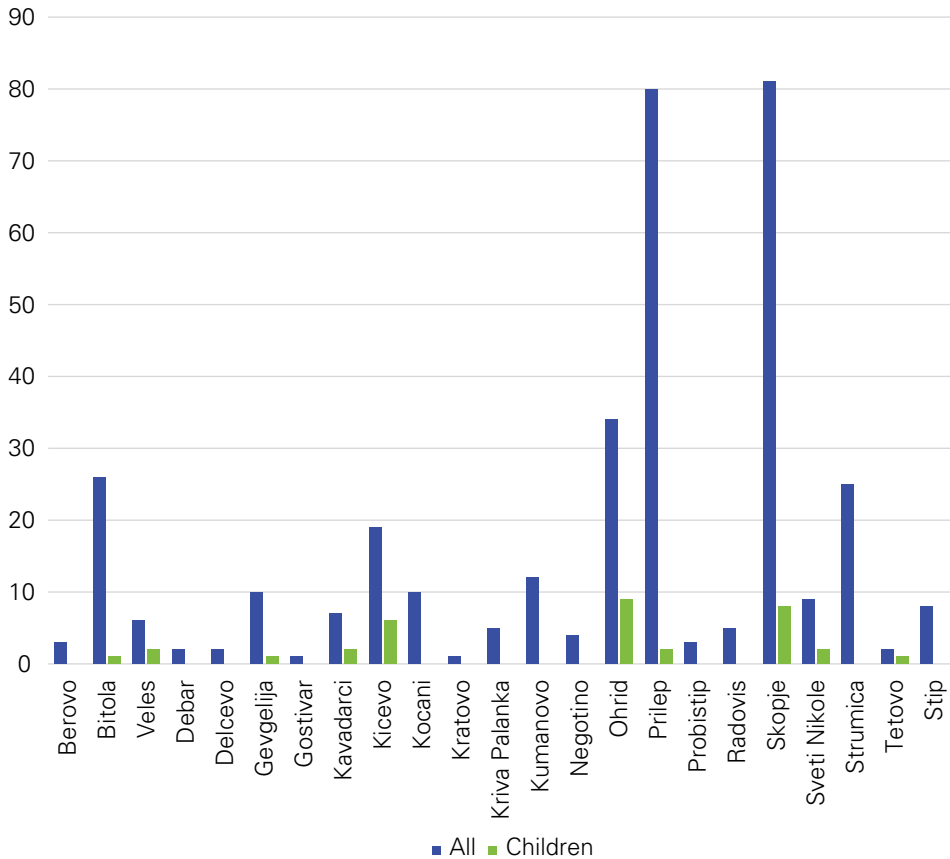
“WHEN THERE WERE ONE OR TWO CALLS PER WEEK, AND NOW THERE WERE 4-5 CALLS PER DAY RELATED TO FAMILY VIOLENCE.”

NGOs that provide counselling and support to vulnerable groups also reported cases of neglect, abuse and sexual assaults of children. According to the respondent from the NGO Macedonian association of young

lawyers, the profile of children reported to suffer neglect and abuse is between 0 to 5 years old, while the age of the children victims of sexual assault is 13 to 15. They also noted that the majority of cases were reported in Skopje and involved individuals of Roma and Macedonian ethnic backgrounds.

¹³Pravdiko, Press release: [link](#), accessed on the 10th of June 2020.

Figure 7: Family violence cases reported by the Centers of Social Work



Source: Ministry of Labour and Social Policy, June 2020

To respond to the increase in family violence, the Ministry of Labor and Social Policy (MLSP) opened hotlines¹⁴, and made publicly available the phones and addresses of the Counselling Centers for Victims of Family violence in the eight statistical regions in the country. Also, MLSP in cooperation with the Mission of the Organization for Security and Cooperation in Europe (OSCE) in Skopje donated food packages

for the 329 registered victims of family violence in May and June 2020.¹⁵

¹⁴Ministry of Labor and Social Policy, Press release on victims of family violence: [link](#), accessed on the 10th of June 2020.

¹⁵Ministry of Labor and Social Policy, Press release on support for victims of family violence: [link](#), accessed on the 10th of June 2020.

Centres and Shelters for victims of family violence have been regularly disinfected, according to the health protocols and procedures, to minimise the spread of Covid-19. From all the reported cases of family violence during March to June 2020, only a small number (11 women and 5 children) used the services of the Shelter centre. From the experience of the Shelter for family violence, that is part of the Centre for Social Work in Skopje, during the first three weeks of the pandemic, the Shelter provided support to victims only via phones. Afterwards only one third of its staff returned to the shelter and continued to provide counselling and services face-to-face as well. With the support of their donors, the shelter also provided food packages to current and former registered victims of family violence. Cases of family violence were reported through the police, through the NGOs and by the victims themselves. Reports related to violence against children were usually associated with violence against mothers with minor children, who under the law are also considered direct victims. One of the challenges identified in their work with victims of family violence during the pandemic was lack of cooperation with health authorities, who were not admitting their clients for psychological or medical treatment, unless they had a court

order (as indicated in an interview with a respondent from the Centre for Social Work, Skopje).

NGOs working in the field of prevention of family violence have been advocating for a government decision for the removal of mobility restrictions for victims of family violence as well as special measures for the protection from the family violence perpetrator¹⁶. Coordinated online meetings have been held between the NGOs and MLSP to report and closely follow the current developments related to family violence.

Centres for Social Work. Despite the shift work and somewhat reduced human resources (due to the use of work exemptions granted by Governmental measures), Centres for Social Work (CSW) continued to provide social services during the crisis. Clients were able to submit new applications, both for cash benefits and for social services. CSWs were accessible both physically and over the phone. Their experience reveals that the pandemic and mobility restriction protocol emphasized vulnerabilities of disadvantaged children, and also hindered the realization of already established social rights. Most of the appeals

¹⁶National network against women violence and family violence, Review of undertaken measures: [link](#), accessed on the 10th of June 2020.

during the pandemic were related to the inability of divorced parents to spend parenting time with their children. CSWs were unable to influence this situation through telephone calls, so public awareness appeals were made through MLSP to advocate for greater health awareness among parents faced with challenges of sharing the parenting time during the pandemic.

CSWs also assisted children from households receiving financial support, especially those from rural locations who were unable to participate in remote learning process, due to lack of internet and computers. In collaboration with the Ministry of Education and Science, internet prepaid cards were distributed to assist the education inclusion of these children. In-kind support was also delivered through CSWs in cooperation with the Red Cross, as well as the Municipalities. Food packages were delivered to single-parent households receiving financial support, as well as to victims of family violence.

The specialized team for dealing with urgent cases of vulnerable categories from the Inter-Municipal Center for Social Work of Skopje indicated that calls for intervention received during the hours of restricted mobility were related to children aged 12-16, predominantly from Roma background and from households in social risk.

During the pandemic, there have been complaints from citizens not being able to access some of CSWs by phone. According to the Deputy Ombudsman, the complaints were related to the inability to obtain information about the criteria for the extended monetary benefits from the social protection system, late payments of monetary benefits, inability to submit applications as well as inability to realize the parenting time entitlement from divorced parents. As a response to the issue of parenting time, the Ombudsman submitted a Recommendation to the Government, whereby:

- MLSP and CSWs should regularly and continuously monitor the manner and dynamics of exercising the right to personal relations and contacts between children and the parent with whom they do not live, and consequently respond accordingly, respecting the principle of the best interest of the child; and
- in cases where parents are hindered in exercising the right to see the child with whom they do not live, due to limited movement, to take measures and to allow them to take the children and return them to the parent with whom the child lives, in accordance with the authorities' decision for parenting time and by

respecting protocols for providing hygienic and other standards.¹⁷

In addition, the Ombudsman sent written request to all CSWs, as well as all residential and non-residential facilities providing accommodation and services for children, to acquire information about the realization of children's rights during the pandemic including their contacts, safety protocols adopted, number of personnel, etc. The obtained data are currently being analyzed and will be made publicly available through the Ombudsman's Office and its official communication channels.

Services for support, counselling and development of children.

The pandemic has also placed significant pressure on foster families, affecting both foster parents and children. Reports show burnout among foster parents due to the overwhelming need of educational support during distance learning. Also, cases of peer-violence were reported among the fostered children, as revealed by the representative of the SOS Children's Village Program. Direct visits of fostered children were forbidden during the pandemic. Although this measure was a result of the government health protocols against the spread of Covid-19, still it hindered the realization of children's rights and rights of their biological

parents and relatives. During the pandemic, visits were not conducted by the CSW to monitor the situation of children in foster care, which may have hindered timely risk identification.

In the housing units for supported living, young people without parents and parental care were provided assistance by educators who helped young people with their homework and school projects. Also, psycho-social counselling has been provided according to their needs. In order to have quality free time and strengthen skills, young people living in these units attended online life-skills training.

Counselling centers for parents and children have been active during the pandemic. Centers in the municipalities of Gazi Baba and Suto Orizari provided services that included (interview with representatives of the NGO Megjasi- First Children Embassy and the coordinator of the Megjasi SOS Hotline):

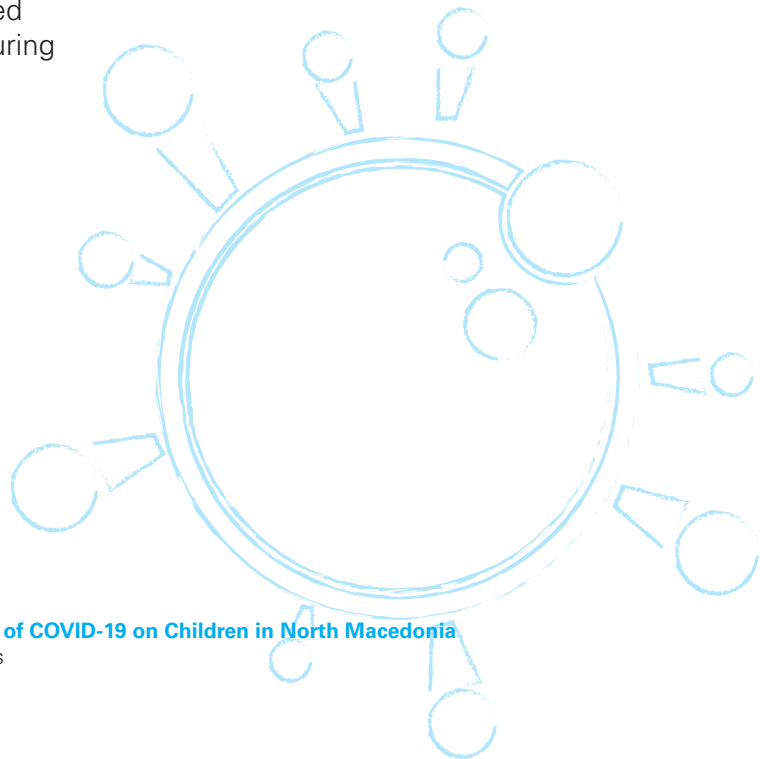
- Assistance over telephone line for psychological and social support and counselling for all family members;
- Delivery of humanitarian packages (basic food products,

¹⁷Ombudsman of the Republic of North Macedonia, Recommendations of the Ombudsman for realization of children rights during the state of emergency: [link](#), accessed 10.06.2020

personal hygiene products, as well as disinfectants);

- For the newborns, donation of diapers, adapted milk and basic hygiene items;
- Donation of tablets for school-age children to facilitate distance learning.

The SOS hotline provided by the NGO Megjashi- First Children Embassy, which exists since the foundation of this organization, experienced an increase in the number of phone calls by parents and children. From the records of this organization, the type of assistance required during the pandemic included information about sharing parenting time by divorced parents, allowed movement during curfew for parents with autistic children, assistance in overcoming issues with employers on obtaining permits for exemption from work, and assistance for unemployed parents who lost their jobs during the pandemic.



3.2. FINANCIAL RESPONSE OF THE SOCIAL AND CHILD PROTECTION SYSTEM DURING COVID-19

The outbreak of the Covid-19 pandemic that occurred almost a year after the adoption of the new Law on Social Protection and the amendment of the Law on Child Protection may hinder the reform of the social and child protection system and undermine the expected progress towards reduced poverty rates, particularly child poverty rates, as well as increased activation among guaranteed minimum assistance (GMA) beneficiaries. Instead, the pandemic increased the demand for social and child protection in the context of decreased capacities of the Social Work Centers.

As detailed in Section 2.1.1, the government adopted decrees to: relax eligibility for obtaining the right to GMA, energy subsidy, disability allowance and cash allowance for assistance and care by another person; extend application period of the child protection benefits; and expand unemployment benefit eligibility to jobless persons whose employment was terminated by agreement, upon request or dismissal and jobless persons with irregular registration at the Employment Agency.

CSWs remained open throughout the pandemic, continuously receiving applications for social and child protection cash benefits. Two persons from the Ministry of Labor and Social Policy were part of the Call Center within the General Secretariat of the Government; they were available by phone to respond to requests and needs for additional information about the procedures and requested documents for application for social and child protection benefits.

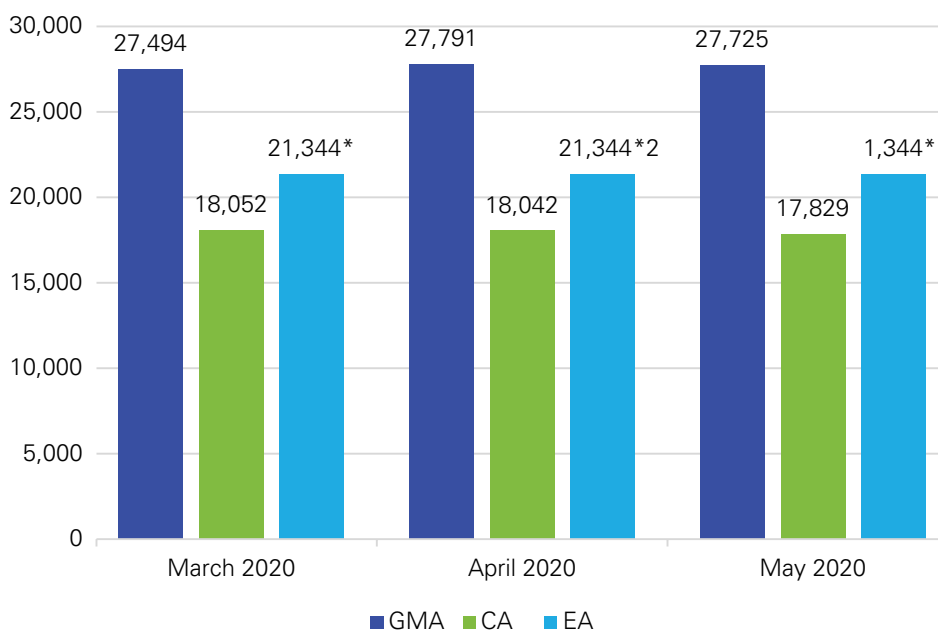
Since the adoption of the modified eligibility criteria for social and child protection, and until end-May 2020, there have been 3,690 new requests for the guaranteed minimum assistance, which is 13.3 per cent of the current beneficiaries; 40.3 per cent of new applicants are households with children. The demand for the child allowance has been lower, with 800 requests, representing 4.5 per cent of the current beneficiaries. The demand increased in June 2020 when 3,525 and 1,522 applications for GMA and CA, respectively, have been submitted, likely due to an array of factors like surge in the number of unemployed persons, expiration of the financial compensation from the unemployment insurance, end of the lock down measures, greater awareness regarding changed GMA criteria among the new applicants, etc.

However, the increase in demand has not been automatically followed by the increase in actual (approved) beneficiaries, and the number of households receiving GMA increased only by 231 (0.8 per cent of stock beneficiaries, **Figure 8**) by end-May 2020. The lower take up may be due to a number of reasons: longer administrative procedures of applicants' eligibility verification, application for other financial benefits (i.e. unemployment assistance from ESA) etc. Likewise, the unchanged rules for the child allowance and the suspension of applications for educational allowance during the

pandemic froze these figures, although they had significantly increased following the June-2019 reform.

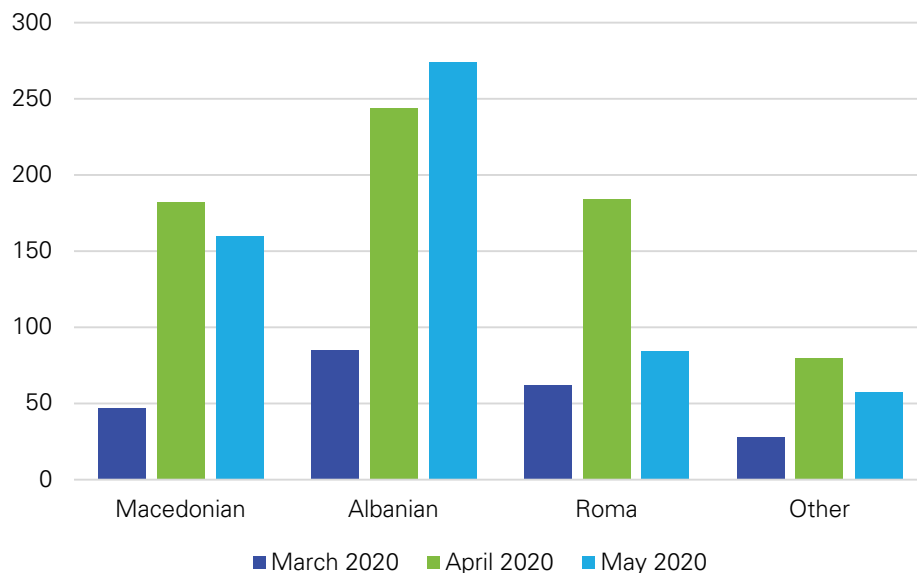
The analysis of the profile of new applicants of the GMA by ethnicity (**Figure 9**) reveals that the highest number of new requests which tripled between March and May 2020 was among the Albanian households. Likewise, the number of new Roma applicants surged in April. Such developments may be related to the high incidence of informal work among some ethnicities, as well as the very low labor-market activity rate among Albanian women.

Figure 8: Beneficiaries of guaranteed minimum assistance (GMA), child allowance (CA) and education allowance (EA), March-May 2020



Source: Ministry of Labor and Social Policy, Cash Benefit Information System, June 2020
 *Application for the educational allowance was not possible for the last quarter (April-June)

Figure 9: New applicants for GMA by ethnicity, only households with children



Source: Ministry of Labor and Social Policy, Cash Benefit Information System, June 2020

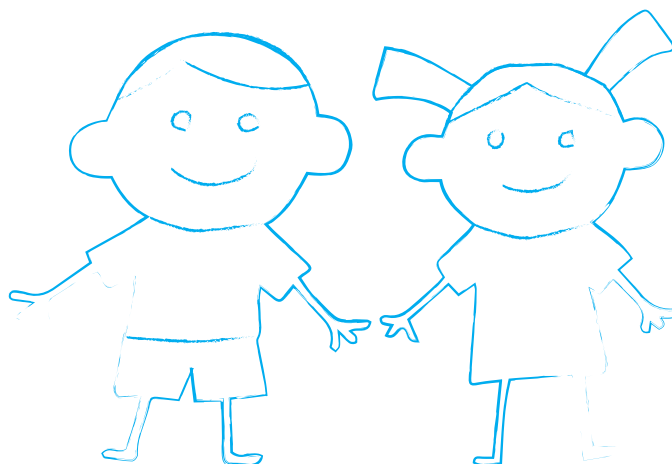
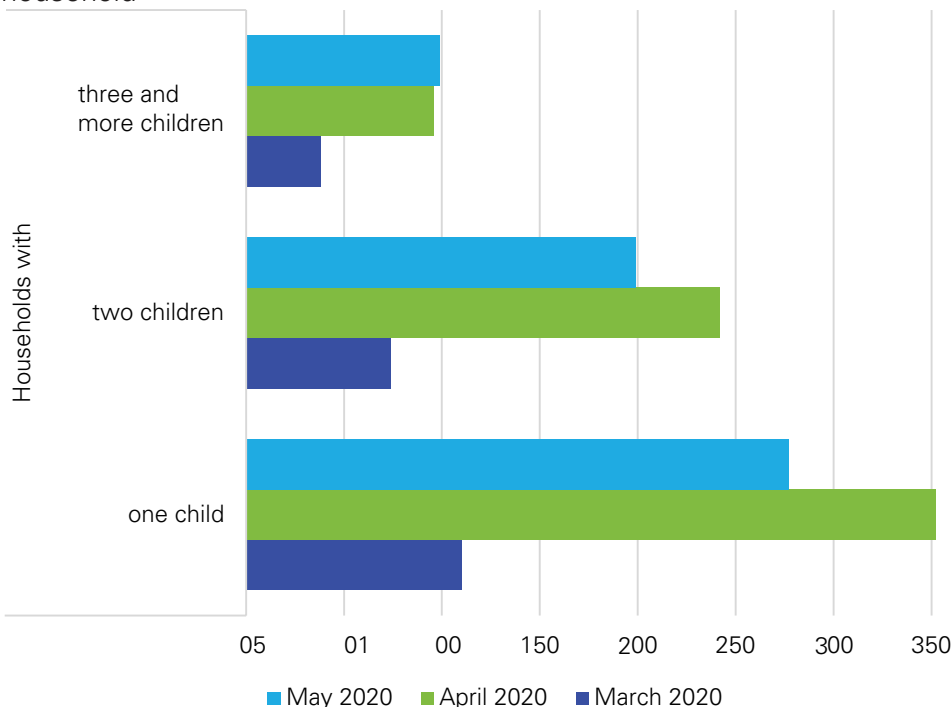


Figure 10: New applicants for GMA by number of children in the household

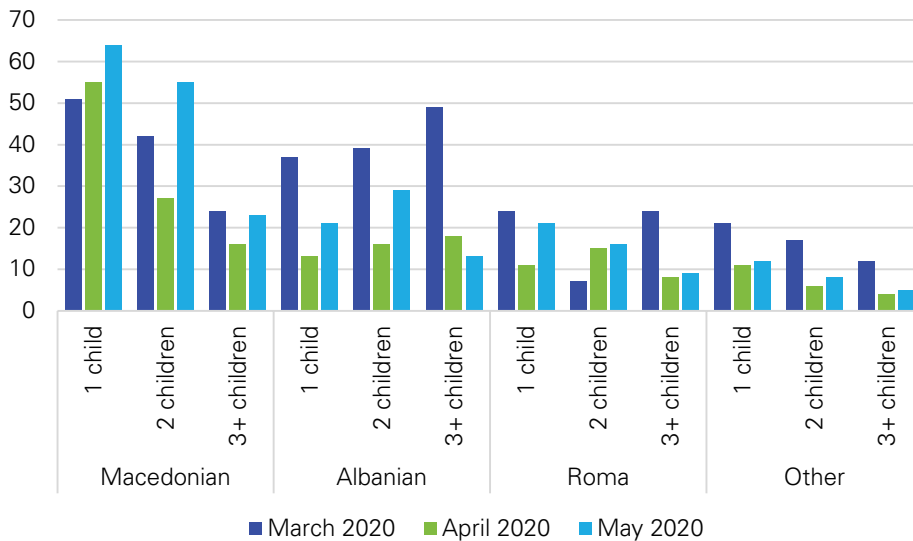


Source: Ministry of Labor and Social Policy, Cash Benefit Information System, June 2020

Disaggregated by number of children in the household (**Figure 10**), the majority of new requests (49.6 per cent) originated from households with one child. This is likely suggesting that such households were less frequently appearing in the system before the pandemic, which—to some extent—is aligned with the poverty rates as they are the highest among 3+ children households. Single-parent families represented only 1.6 per cent of all GMA and CA applicants. The majority of them applied for a child allowance, and the number of their applications increased in May 2020.

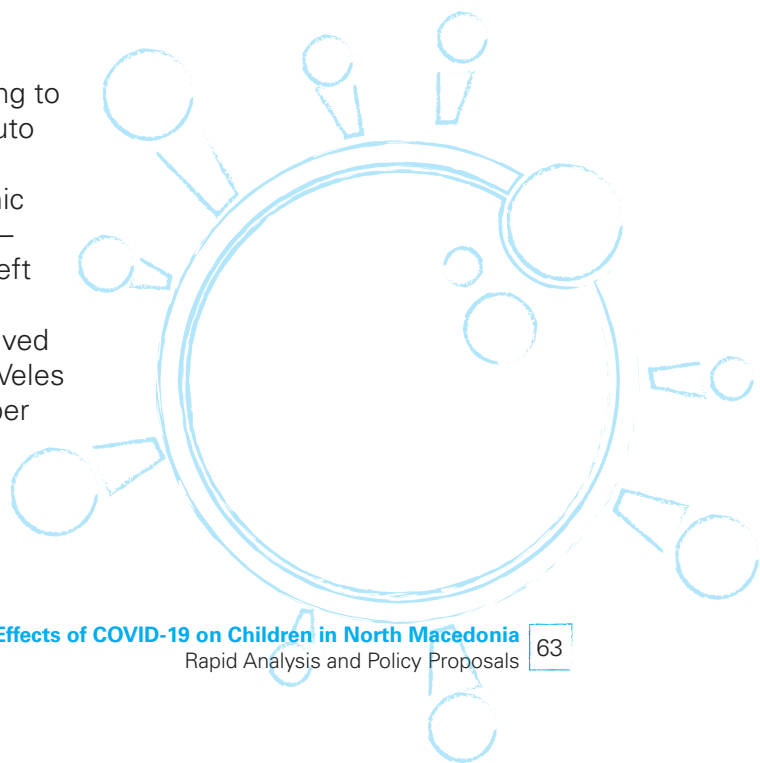
Figures further reveal a continuous increase of child allowance applications among Macedonian households with one child (**Figure 11**). On the other hand, households from Albanian ethnicity showed a large demand at the onset of the crisis in March 2020, and their requests represented 36 per cent of all applications among the households with any number of children. Among households with three and more children, the highest demand came from Albanian households. The situation has been mixed among Roma households.

Figure 11: New applicants for GMA by number of children in the household, by ethnicity



Source: Ministry of Labor and Social Policy, Cash Benefit Information System, June 2020

According to the place of living, most of the GMA applicants came from Gostivar (14.5 per cent) and Tetovo (9 per cent) – both areas predominantly inhabited by Albanians; then, from Shuto Orizari (7.8 per cent) – an area inhabited by Roma; and from Kisela Voda, a municipality in Skopje (7.5 per cent). According to the data from the CSW in Shuto Orizari, the majority of Roma applicants during the pandemic were informal workers, who—due to the lockdown—were left without a job and an income. Most CA requests were received in Kumanovo (10.5 per cent), Veles (8.8 per cent) and Bitola (7.9 per cent).



3.3. SIMULATING THE IMPACT OF COVID-19 ON CHILD POVERTY

This section presents an estimate of how the child poverty rate may have evolved as a result of Covid-19. The first sub-section describes the methodological approach; the second sets the assumptions of the model; the third presents the results; and the fourth discusses possible effects of the pandemic on some non-monetary poverty indicators.

3.3.1. Methodological approach

This assessment of the child poverty under Covid-19 uses the MK-MOD Tax and Benefit Microsimulation Model for North Macedonia. It is a static model where individual behavior (labor-market activity, employment, childcare, saving, etc.) is assumed to be exogenous to the tax-benefit system. It belongs to the family of “standard” static models where individuals/households choose to supply labor (hours of work) until the point where the “marginal disutility of work equals the marginal utility of disposable (net-of-tax) income.” (Saez, 2010, p.180). In this setting, taxes and social transfers affect the labor-market behavior by changing the relative value of work vs. leisure. MK-MOD’s has been validated by Petreski and Mojsoska-Blazevski (2017).

MK-MOD allows for simulation of social assistance, child allowances, unemployment benefits, direct taxes and social security contributions. For the purpose of the modelling exercise in this study, we rely on a limited set of features of MK-MOD, the primary reason being that we reset the model on SILC 2018¹⁸. Hence, we simulate wages from employment, including informal wages; income from self-employment; and their associated tax and social contributions wedges; then, guaranteed minimum income and child and educational allowances. The following categories of income and associated taxes are not modelled but taken as reported in 2018 SILC: income from capital (rents and dividends); pensions; unemployment benefits; and inter-household cash transfers. There has been no change in the tax treatment of income from capital between 2018 and 2020, while pension contribution rate has been increased by a total of one percentage point, but we treat this to have negligible effect on wage income and presently ignore it.

¹⁸The original MK-MOD was built on the basis of Finance Think own Quality of Life Survey 2017.

There are, however, two important caveats. The first one is related to the unemployment benefit, which we do not simulate because it assumes information about past tenure and salary of the employee who lost a job. Moreover, unemployment benefit eligibility is quite stringent and if termination of the contract occurs at the request of the employee or by mutual agreement, the unemployed person loses eligibility. None of this information is contained in SILC, which prevents simulation. Second, MK-MOD is a static model and hence transitions from employment to unemployment are not observed. On the positive side, however, the existing administrative data from the Employment Service Agency suggest that the number of registered unemployed increased from 105,816 in February 2020 to 121,187 in May 2020, indicating yet a relatively negligible net number of people having lost their jobs: less than 2 per cent of all employed in North Macedonia. Over the same period, the unemployed benefit claims increased from 4,719 to 7,186, and the increase was even met, at the beginning of May, with the government having made re-employment of the staff laid-off during the pandemic a condition for eligibility for government assistance to businesses.

The second caveat relates to the reformed social assistance scheme, as introduced in Section 1. The structural shift occurred in May 2019, potentially distorting any results based on SILC 2018 data. Therefore, in the model, we disregard the social benefits distributed in 2018 and apply the rules of the current social assistance system instead when calculating the disposable income of households. One constraint here is that the definition of materially deprived households cannot be precisely captured, but we rely on the indicator of whether the household obtains income receipt from rent and use it as an exclusion restriction criterion. The disadvantage of such an approach is that we have to leave out of the simulation all disability-related allowances (except the correction of GMA for disability and single parents) and one-time benefits, as we do not have information for simulating their eligibility criteria in SILC. Moreover, while we simulate the parental allowance (third-child allowance) with the means test introduced with the 2019 reform, we do not capture the old non-means-tested allowance that will be gradually phased out through 2029. Nevertheless, we are able to observe many effects of the social assistance reform and, on top that, the effect of Covid-19.

3.3.2. Assumptions

The following set of assumptions is used in the simulation.

The key component of the household income is income from (formal) wages. The critical assumption related to the dynamic of wages during Covid-19 are derived from the data on the sectors' exposure to crisis. This information is taken from ILO/EBRD (2020), Annex 2: Sectors at the 2-digit level of the EU statistical classification of economic activities (NACE¹⁹, Rev.2) are assigned a numerical value from 1 to 5, where 1 signifies no impact at all and 5 – full impact (full closure). The following assumptions scheme is applied:

- All sectors hit the hardest (5) have closed, as a result of which employees received 50 per cent of the minimum wage over 2 months, and then the minimum wage for the rest of the period;
- All sectors hit medium-hard (4) reduced salaries to the minimum wage level over 2 months, and then by 20 per cent;
- All sectors hit medium (3) reduced salaries by 20 per cent over 2 months, then by 5 per cent;
- All sectors hit medium-low (2) reduction of salaries of 10

per cent over 2 months, while for the rest there is no salary reduction;

- All sectors hit low (1) did not reduce salaries.

We should note that while ILO/EBRD (2020) reports the impact for 39 out of 89 2-digit NACE Rev.2 sectors, these cover almost 92% of all employed in the country. This means that the unassessed 50 sectors employ only 8% of the total number of employees. Hence, we make an arbitrary assumption that the impact for these sectors has been low-medium (2), so that they feature in our simulation without inflicting any important statistical harm or benefit.

The following is the assumption scheme for the self-employed:

- All self-employed in sectors hit the hardest (5) have closed (self-employment income reduced to zero) over 2 months, while over the rest of the period income reduced by 30 per cent;
- All self-employed in sectors hit medium-hard (4) lost half of their income over 2 months and 20 per cent over the rest of the period;

¹⁹The abbreviation NACE is derived from the French Nomenclature statistique des activités économiques dans la Communauté européenne.

- All self-employed in sectors hit medium (3) lost 25 per cent of their income over 2 months and 10 per cent over the rest of the period;

- All self-employed in sectors hit medium-low (2) lost 10 per cent of their income over 2 months and none over the rest of the period;

- All self-employed in sectors hit low (1) did not lose any income.

For a small number of cases where the sector of the self-employed was not provided in SILC, an arbitrary 10 per cent reduction of income was assumed.

All holders of informal jobs (as judged per the existence of written or oral contract) are assumed to have been severely impacted through a 60 per cent reduction of their income.

The assumption related to the guaranteed minimum income (GMA) stems from the Decree on the Application of the Social Protection Law, that relaxed the criteria for assessing material deprivation of the households (see Section 2.1.1), which in SILC may be approximated by the removal of the criterion of not having income from rent. This is a very strong assumption because the relaxation of the criteria meant that the household may own the real estate in which it

lives, car older than 5 years and a construction parcel of below 500 m², all of which had constituted ineligibility before. Hence, under the relaxed criteria, possessing other real estate or movable property is still an exclusion criterion. But, we are constrained to simulate this because SILC does not contain such detailed information on the possession of property. We, therefore, assume that the removal of the income from rent component as criterion will mimic the removal of the above-mentioned eligibility criteria. On the obtained GMA recipients, we simulate the extension of the energy supplement from 6 to 12 months.

However, the relaxed criteria are more powerful in another aspect: a household may enter the GMA system based on the income in the month preceding the month of application (instead of the average income of the previous 3 months). This implies that all households whose labor market income was severely hit by the pandemic, including those who lost informal income, could rapidly enter the system. Therefore, the income losses from the labor market in the preceding assumptions feed into the criteria (income threshold) for obtaining the GMA.

The assumption related to other incomes stems from the Decree on One-time Financial Support of Low-income Citizens and Employees, and of Young

Persons. The Decree distributes one-time cash assistance of MKD9,000 to persons older than 18 living in households-recipients of social assistance (GMA and other allowances) and to active job seekers registered with ESA; one-time cash assistance of MKD3,000 to employees whose income originates solely from employment and which did not exceed MKD15,000 monthly; and one-time cash assistance of MKD3,000 to pupils and students, 16-29, who are in regular public education. We note that the simulated income may be slightly overestimated because SILC does not contain information of whether active job seekers have been registered with ESA, nor if the education (particularly of students) had been regular (full-time) or with the state universities only.

We conduct a general test of all these assumptions by comparing the pre-Covid-19 average disposable income (provided by the SILC 2018) and the post-Covid-19 one when all of the above criteria have been applied and simulated household income obtained. The results are presented in **Table 6**, and they suggest that under such assumptions the average disposable income per-adult household member would decline by 6.4 per cent after Covid-19.

Table 6: Average disposable income per- adult household member

Pre-Covid-19 (MKD)	174,143
Post-Covid-19 (MKD)	163,015
Change (%)	-6.4%
<i>Source: Authors' calculations based on SILC 2018 and MK-MOD.</i>	

We need exogenous source to verify this, though. Hence, we make a brief exercise in which we estimate the decline of disposable income given a unitary reduction in GDP. We obtained the two series from the World Development Indicators of the World Bank and we calculated an elasticity of 1.66. This implies that when GDP declines by 1 per cent, disposable income in North Macedonia declines by 1.66 per cent. The current forecasts²⁰ for the GDP growth over 2020 in North Macedonia range between negative 3.2 per cent and 4 per cent. This implies that the associated disposable income decline would range between 5.3 per cent and 6.6 per cent. Our estimate of -6.4% (Table 6) is closer to the higher end of the range, hence corroborating the robustness of the above assumptions.

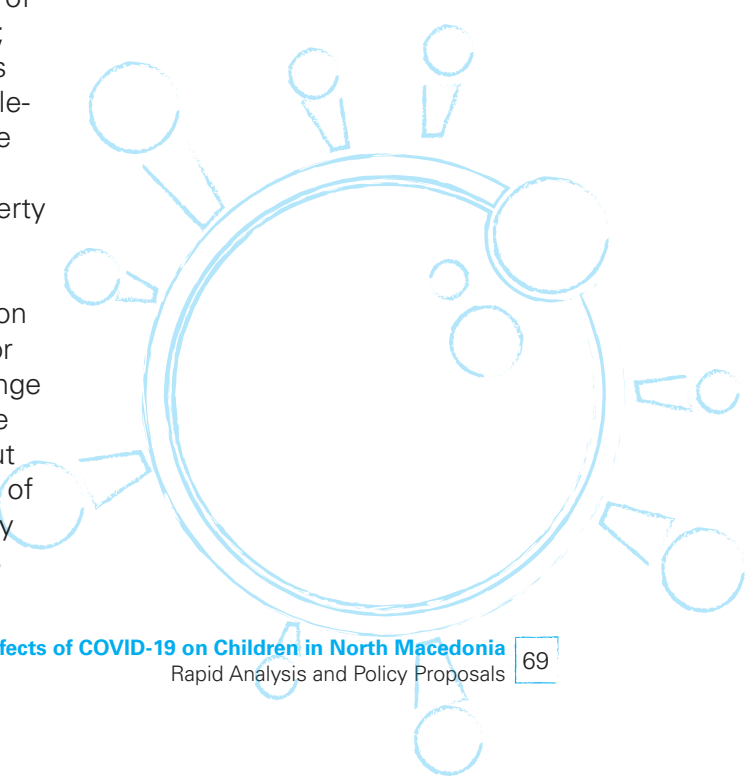
²⁰Summarized [here](#)

3.3.3. Results and discussion

Based on the methodology and assumptions outlined above, a new set of household income data that we call “post-Covid-19 scenario” was produced. On the basis of these data the post-Covid-19 child poverty rates were calculated. Differential effects of wage income, self-employment income, social income, and one-off payments on child poverty rates were also calculated. We have also disaggregated child poverty rates by some individual and household characteristics.

Table 7 presents the effects of Covid-19 on child poverty by contrasting 2018 headline child poverty rates with the post Covid-19 estimates. Three child poverty indicators are used: the relative one based on the share of child population living in households whose income falls below the 60th percentile of the median equivalent income; and two absolute poverty rates – extreme-low and upper-middle-income poverty thresholds. The importance of presenting both relative and absolute child poverty lies in the notion of median income, that is affected by all the changes assumed in Section 3.3.2. The relative share of poor children would, therefore, change not only as a result of a change in their household incomes, but also as a result of the changes of the median income. This is why the relative poverty indicator is

complemented by absolute child poverty rates, which are obtained by calculating the percentage of children below a given fixed threshold (in this case USD1.9 and USD5.5 per day at ‘per adult equivalent income’ for extreme-low and upper-middle thresholds respectively). See a further discussion of these issues in **Box 1**.



BOX 1: POVERTY LINES USED IN THIS STUDY

As this part of the study relies on SILC, the prime poverty line we use is the relative poverty line equal to 60 per cent of the per-adult equalized median household income. It is very important to highlight the 'per-adult member' feature of the calculation, which implies that household members are weighted in obtaining the income 'per capita', as follows: the head obtains 1, each next adult 0.5, while children (aged 0-13) 0.3 each. The advantage – in terms of this study – in using such a construct of the poverty line is the distinct weighting of children, which is aligned with both the Social Protection Law and Child Protection Law. The Social Protection Law stipulates that, in the calculation of GMA primarily, the household head weighs 1, a second adult 0.5, third and fourth adult 0.4 each, fifth adult 0.2, child 0.1 each. The law prescribes upward-adjusted weights for lone parents and disabled individuals. The Child Protection Law stipulates a slightly different equalization scale: head 1, second member 0.5, third and fourth member 0.4 each, fifth member 0.2, sixth, seventh and eighth member 0.1 each. The law similarly prescribes upward-adjusted weights for lone parents. Yet, the disadvantage of using any relative poverty line is that the resulting poverty rate may remain constant or even decline as households' incomes decline (and, hence, people become effectively poorer than before, but this is not reflected in the relative poverty rate), simply because the median income declines, moving the relative poverty line down.

In this study, this disadvantage of the relative indicator has been overcome by using absolute poverty lines. We use two absolute poverty lines: USD5.5 per day and USD1.9 per day (2011 PPP terms). These are the commonly used absolute poverty lines suggested by the World Bank,²¹ and known as the extreme poverty line and the middle-income International Poverty Line. The apparent disadvantage – in terms of this study – of using such constructs is that they rely on the 'per household member' principle, and not on 'per-adult equivalent' one. This implies that in the calculation of the per capita household income, they use equal weighting for all household members including children.

For the purpose of this study, we make a reconciliation of the advantages of both relative and absolute poverty lines. We calculate the relative poverty rates for children in the manner done in SILC and we replicate the data published by the State Statistical Office. Further, we calculate absolute poverty lines by using the two above-mentioned thresholds (MKD16,989 and MKD49,175, respectively), but applied to per-adult-equivalent household income, to consider differential weighting of children along the lines used by Social and Child Protection Laws. This, however, implies that such rates are not comparable to the rates calculated and/or published based on World Bank's methodology and this should be borne in mind when interpreting the results. To avoid confusion, we denote the obtained poverty rates as being based on "extreme low income threshold" and "upper middle income threshold".

²¹A discussion on this could be found [here](#)

Covid-19 is projected to strongly affect child poverty as the relative one increases from 29.3 per cent before the pandemic to 33.3 per cent after the pandemic. Such an increase would put additional 16,000 children in North Macedonia below the relative poverty threshold. That a 4 percentage points increase (equivalent to 13.6 per cent increase) is actually fairly large may also be gauged by the fact this is the highest child poverty rate ever registered since SILC was first conducted (2010). Moreover, based on the Household Budget Survey, child poverty between 2009 and 2010 (no data for 2008), during the Global Financial Crisis, increased by 2.9 percentage points, suggesting that Covid-19 would have a stronger effect.

Results further suggest that absolute poverty is likely to reduce only because of the social assistance reform of 2019 and due to the social assistance criteria relaxation amid Covid-19 (column 4), as well as because of the one-time cash assistances (column 5) and not due to the compensation of the losses in labor-market income, apparently because households who primarily derive their income from the market are not among the extreme poor. Under these terms, post-Covid-19, about 2,600 children will be dragged out of extreme poverty, but apparently mostly due to the 2019 social assistance reform.

Table 7 presents further interesting insights. The incremental effect of the declining wage income (including the severe reduction of wages from informal jobs, column 2) is assessed at about 1.4 percentage points, while the effect of the decline of self-employment income (column 3) – at 2.1 percentage points. This suggests that self-employed individuals are more frequently hovering around the poverty threshold, and a large-scale shock, as is the one from Covid-19, easily throws them into poverty. This is also not surprising given that a large share of the self-employed are found in the hardest hit sectors, like retail trade, personal services (hairdressers and cosmetics salons), bars, restaurants and transport. Absolute poverty increases because of Covid-19's impact on wage and self-employment income, though only around the upper middle income threshold as labor-market income is concentrated around and above this line, while the extremely low poverty rate remains largely flat, because the poorest households do not rely on labor market income per se.

Column (4) presents the impact of the social assistance reform of 2019 and the relaxation of eligibility criteria in response to Covid-19. As already noted, since we do not have sufficiently precise information from SILC to simulate the reform (as well the

Table 7: Covid-19's effect on child poverty

	Pre-Covid-19	Post-Covid-19				
	Actual 2018	Impact of wage income decline (incl. informal wages)	Impact of self-employment income decline	Impact of social assistance reform and relaxation	Impact of one-time cash assistance	TOTAL
	(1)	(2)	(3)	(4)	(5)	(6)
Relative poverty (below 60% of the equiv. median income)	29.3%	30.7%	32.4%	n.a.	29.4%	33.3%
Absolute poverty, below extreme low income threshold	3.0%	3.1%	3.0%	2.4%	1.1%	2.3%
Absolute poverty, below upper middle income threshold	11.3%	12.3%	12.0%	10.7%	10.0%	11.8%

Source: Authors' calculations based on SILC 2018 and MK-MOD.

Note: The relative poverty in column (4) is not presented as is under significant influence by the targeting of the newly reformed system, particularly by the imposition of means testing of the parental allowance since 2019 and our constraint to simulate the non-GMA allowances.

eligibility relaxation), we present the results altogether; they suggest that the reform would reduce absolute poverty from 3.0 to 2.3 per cent, assuming all eligible poorest of the poor segments obtain the assistance. This result is consistent with the fact that the majority of incomes

below the upper middle-income threshold are social incomes. However, the reasons for the failure to eradicate extreme poverty should be again sought in the property ownership eligibility criteria, as well as in the likely inadequacy of assistance amounts for very large families.

Column (5) presents the incremental impact of the one-time cash support which, interestingly, has a significant effect on absolute poverty. However, one needs to be cautious in the interpretation, because for most part, these cash disbursements top up already low incomes – either from social assistance or from low-pay employment – and hence cumulatively show up powerful in eradicating extreme poverty. They are, therefore, properly targeted, but alone they likely cannot eradicate poverty.

Overall, income losses due to Covid-19 are found to primarily exacerbate relative child poverty, though to some extent also the absolute poverty as per the upper-middle-income threshold. Relaxed GMA criteria and one-off cash disbursements are softening the impact on child poverty mainly in the left tail of the income distribution, hence affecting primarily absolute poverty rates, which is determined by the income threshold for the GMA eligibility and the targeting of one-time cash support.

We proceed by disaggregating the Covid-19's effects on child poverty by some individual and household characteristics. **Table 8** presents child poverty rates by gender and age of the child. Note that these are the only personal characteristics of children in the data set, as

persons aged 15 and below do not fill in individual questionnaires. Girls are disadvantaged in terms of falling into poverty, although the pandemic increases relative poverty rates for both genders almost equally. The social reform and the relaxed eligibility criteria more effectively reduce absolute poverty at the upper-middle-income line for boys than for girls, who are more exposed to the negative effect of Covid-19. In terms of age, Covid-19's effect is spread among all the age sub-categories. The relative poverty surges by 3-4 percentage points, while the absolute poverty rate at the upper-middle-income threshold declines for the 0-5 and 15-17 sub-groups. The post-Covid-19 surge in absolute poverty rates for the age group 6-14 may well be related to the lower child allowance compared to 0-5 age group, and the lower educational allowance compared to the 15-17 age group.

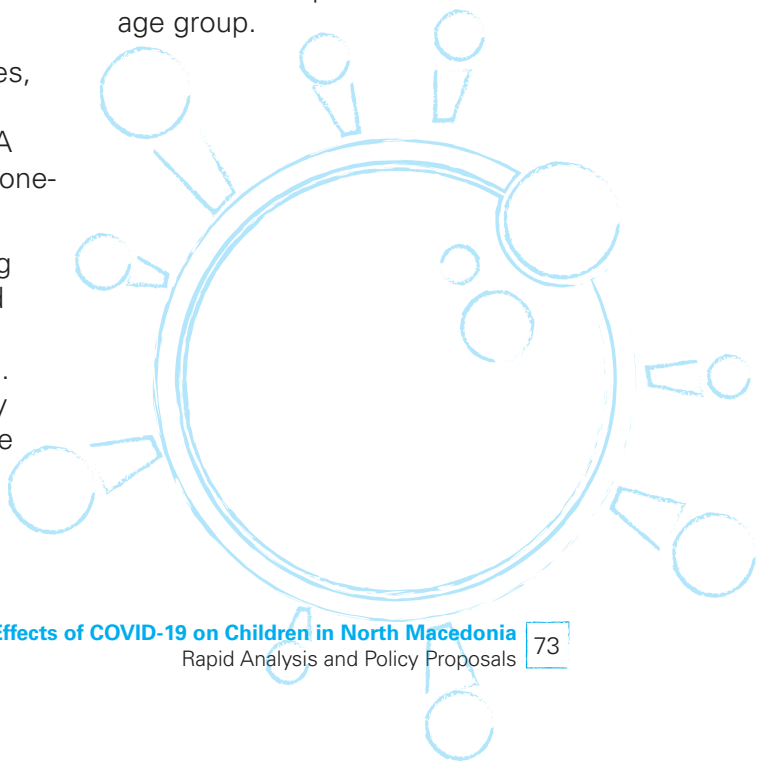


Table 8: Covid-19's effect on child poverty, by gender and age

	Gender		Age		
	Male	Female	0-5	6-14	15-17
	Pre-Covid-19				
Relative poverty (below 60% of the equiv. income median)	28.7%	29.8%	27.1%	28.5%	35.6%
Absolute poverty, below extreme low income threshold	3.0%	2.9%	2.1%	2.9%	4.2%
Absolute poverty, below upper middle income threshold	11.5%	11.1%	10.0%	11.3%	12.9%
	Post-Covid-19				
Relative poverty (below 60% of the equiv. income median)	32.8%	33.9%	31.8%	31.6%	38.0%
Absolute poverty, below extreme low income threshold	2.3%	2.4%	1.3%	3.1%	2.1%
Absolute poverty, below upper middle income threshold	11.3%	11.6%	9.4%	12.4%	12.4%

Source: Authors' calculations based on SILC 2018 and MK-MOD.

Table 9 looks at two household characteristics: whether the household has 3 or more children, and the average education of the adult members²². The relative poverty of children in multi-child households is astonishingly high and Covid-19 significantly aggravates this situation compared to the households with one or two children, where relative poverty increases only slightly. Remarkably, the pandemic exacerbates absolute poverty for households with 3+ children, which may be ascribed to the infinitesimal increase of GMA for each additional child and of child allowances for children beyond the second, coupled with the potential low-work intensity to spare time for childcare. Such situation corroborates the generally known

results that children in multi-child households are the furthest left behind. Table 9 further suggests that child poverty is connected with the educational strength of the household, which may prove particularly important in the context of Covid-19-imposed school closures. Namely, where the average education in the household is primary or less, child

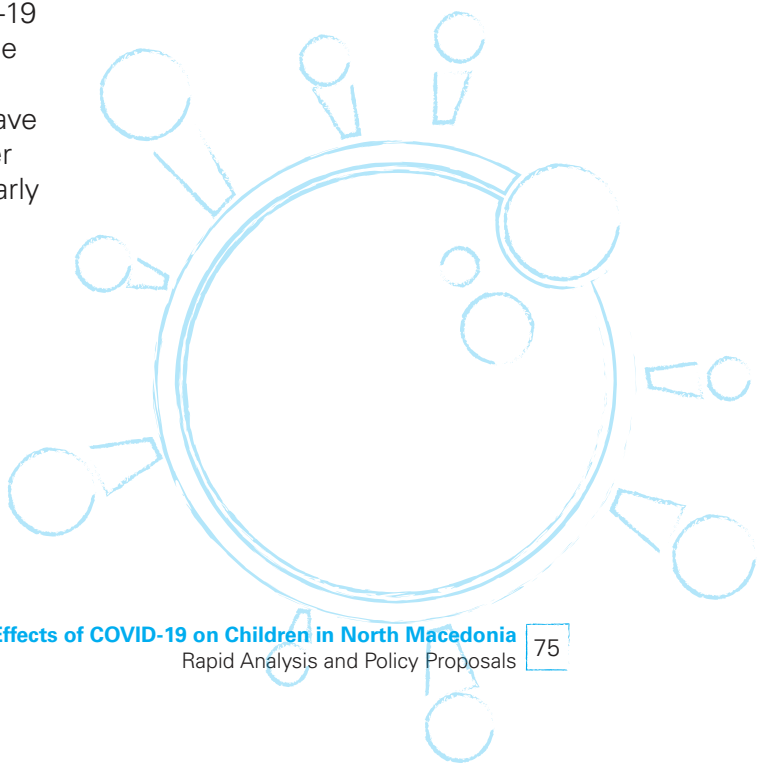
²²Note that the average education of parents requires a complex and cumbersome identification of families as opposed to the concept of households on which SILC is built and hence, we operate with the average education of all adult household members as an approximation.

Table 9: Covid-19's effect on child poverty, by household characteristics

	Number of children in household		Average education of adult members		
	2 or fewer	3 or more	Primary or less	Secondary	Tertiary or more
Pre-Covid-19					
Relative poverty (below 60% of the equiv. income median)	23.9%	42.0%	64.1%	28.7%	1.1%
Absolute poverty, below extreme low income threshold	2.8%	3.2%	8.0%	2.7%	0.0%
Absolute poverty, below upper middle income threshold	8.5%	17.0%	28.7%	10.4%	0.0%
Post-Covid-19					
Relative poverty (below 60% of the equiv. income median)	24.9%	50.3%	70.1%	32.2%	0.9%
Absolute poverty, below extreme low income threshold	1.1%	4.7%	7.0%	2.0%	0.0%
Absolute poverty, below upper middle income threshold	8.5%	17.5%	30.3%	10.4%	0.0%

Source: Authors' calculations based on SILC 2018 and MK-MOD.

poverty 'blossoms' and Covid-19 intensifies it. On the other side of the spectrum, when adult members of the household have an average of tertiary or higher education, child poverty is nearly eradicated at any threshold.

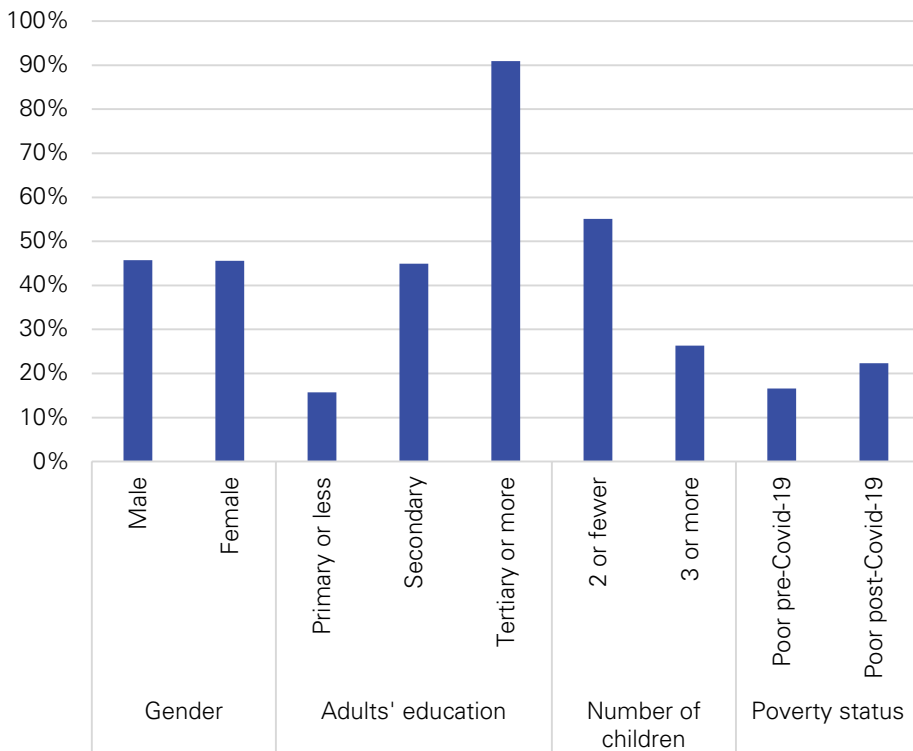


3.4. OTHER DEPRIVATIONS EXACERBATING THE IMPACT OF COVID-19 ON CHILDREN

The discussion from Section 3.3.3. can be extended to potential effects of the pandemic on a range of non-monetary poverty indicators, including indicators related to education, health, housing conditions and access to services. The pandemic has aggravated the whole range of indicators, which go beyond the income deprivation, but are correlated with it. For example, the perpetuation of low education

of parents and poverty, as already shown in Table 9, suggests that Covid-19 may significantly impair human capital endowment and accumulation for poor children, who may lack learning support and assistance from parents, or may lack means to establish efficient distance learning. The lack of confidence in own ability to support children’s learning as well as potential lack of familiarity with the subject matter may be a barrier among parents with low education. Only 45.8% of children in North Macedonia live in homes with internet connection; **Figure 12** shows that

Figure 12: Share of children with internet connection available at home



Source: Authors’ calculations based on SILC 2018.

this share is astoundingly low in households with low levels of education, with 3+ children, and in poor households – potentially aggravating the negative effects of school closure on learning and cognitive development of children from these households.

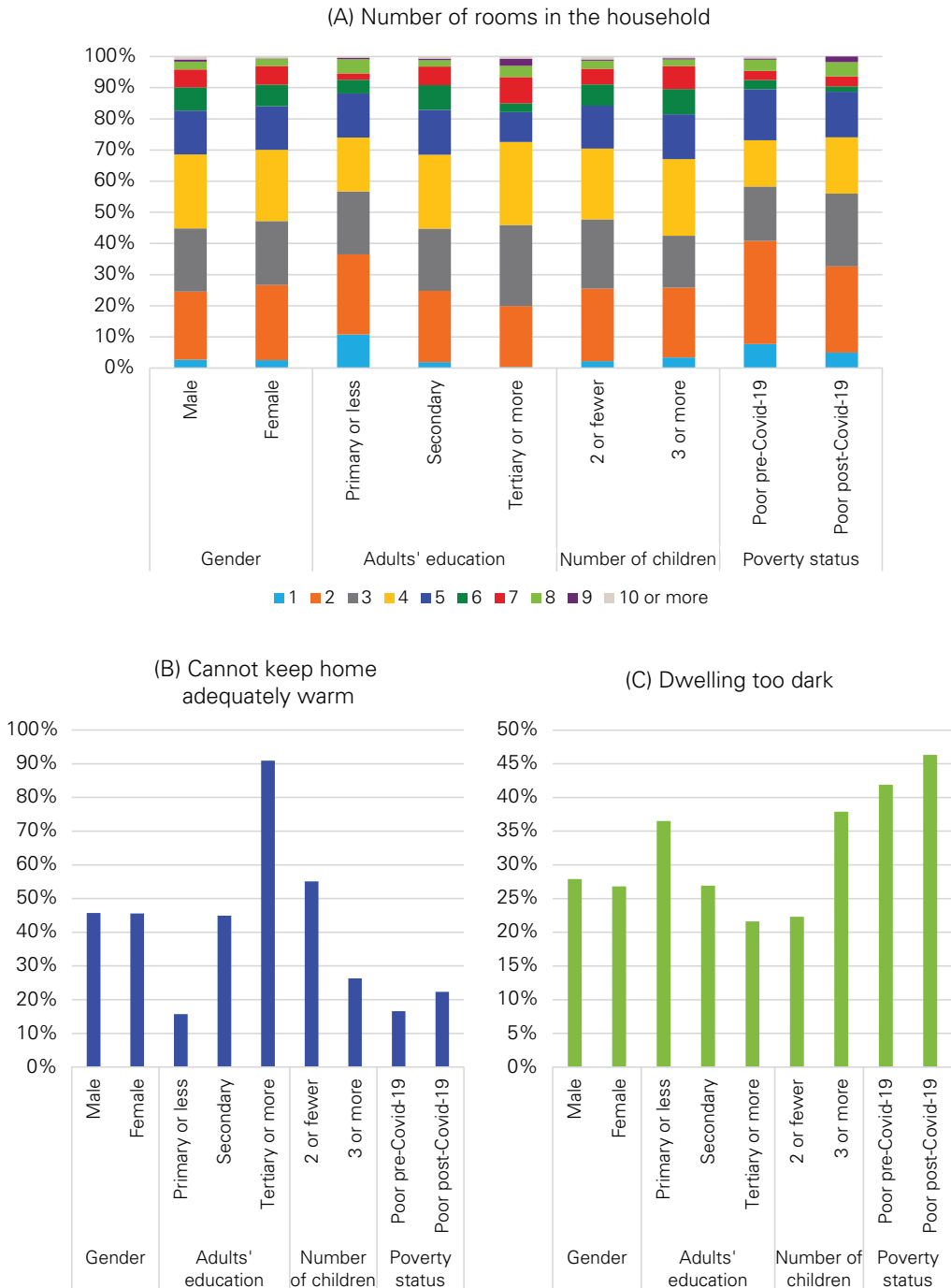
Living in multi-children and poor households may also be correlated with the housing and living conditions impairing the learning process of children. The following set of figures captures such conditions. **Figure 13**, panel a, portrays the distribution of children by the number of rooms in the household and suggests that the majority of households with children have up to four rooms, with equal gender distribution. Poorer households, who are also those with lower educational endowment and more children, have fewer rooms, suggesting overcrowding that may intensify learning and cognitive decay among children. Poorer households, households with more children and adults with primary or lower level of education also predominate among the households who cannot keep their home warm (**Figure 13**, panel b) and whose dwelling is too dark (**Figure 13**, panel c), but in each of these categories the shares of non-poor households are also non-negligible. Panels b and c further suggest that Covid-19, most likely through the lockdowns and confinement, aggravates the

effects such conditions may have on children's learning, as shares of households experiencing the difficulties increase post-Covid-19.

A broader perspective of how the pandemic affected the learning process of children in North Macedonia follows in Section 4, while the impact on the health risks is discussed in Section 5. Unfortunately, as far as non-monetary poverty indicators are concerned, SILC does not contain health information and information on access to services by households, and socio-economic characteristics for children below 16 are largely missing, too.

However, the Multiple Indicator Cluster Survey (MICS) sheds some light on the disparities between children from the poorest and well-off households. Just as we have proved that Covid-19 exacerbates poverty, it is very likely that it will widen the income/wealth gap as well. MICS takes a different—non-income—approach to defining poor households, but nonetheless demonstrates the disadvantages experienced by children.

Figure 13: Housing conditions (share of children affected)



Source: Authors' calculations based on SILC 2018.

For example, only about a third (36 per cent) of the poorest children 6-23 months old were receiving a minimum acceptable dietary diversity²³, which is half the rate for children in the richest households (70 per cent). We observe further disparities across the following axes: early childhood development; foundational learning skills; nutrition; water, sanitation and hygiene; and usage of fuels in the household (**Figure 14**).

Disparities are manifest when the children's developmental alignment, as measured in at least three of four domains: literacy-numeracy, physical, social-emotional and learning, is evaluated (**Figure 14**, panel a): the share of developmentally aligned children in the poorest households is about two thirds, compared to over 90 per cent in the richest households. Moreover, less than 10 percent of 3-5-year-old children from the poorest households attend early childhood education (compared to close to 70 percent of their peers in the richest households). The shares among Roma children are very low across the entire wealth distribution: even for the richest households such attendance hovers only slightly above 20 per cent (**Figure 14**, panel a).

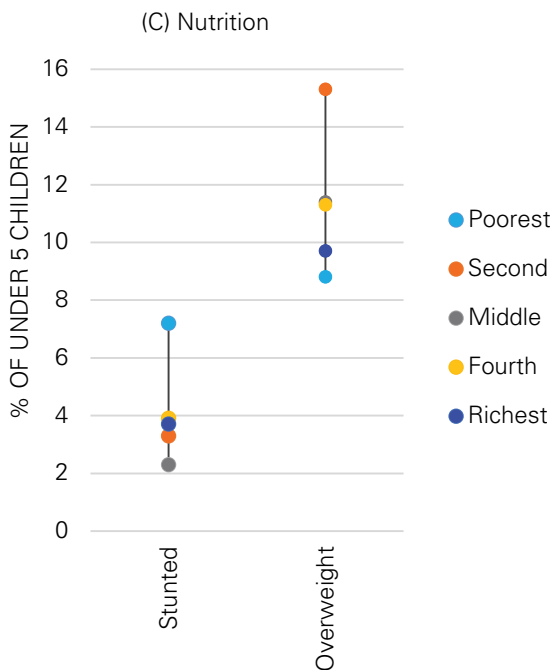
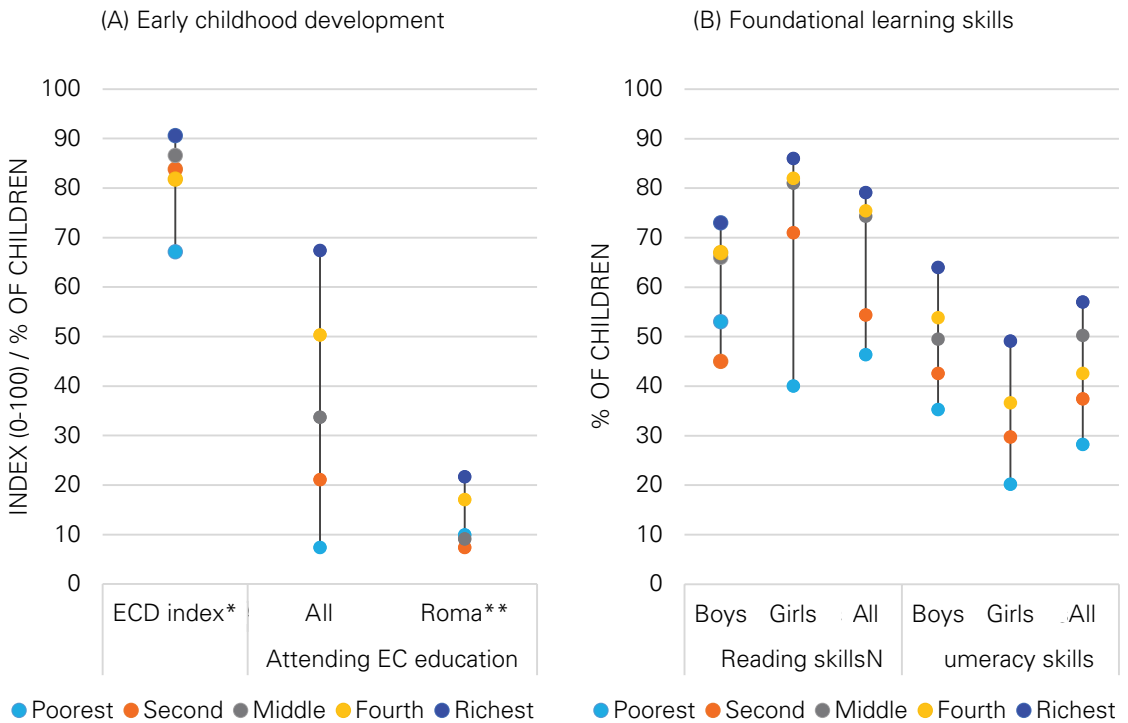
Children in the poorest households lag in reading and numeracy skills (**Figure 14**, panel b). The distribution of shares of

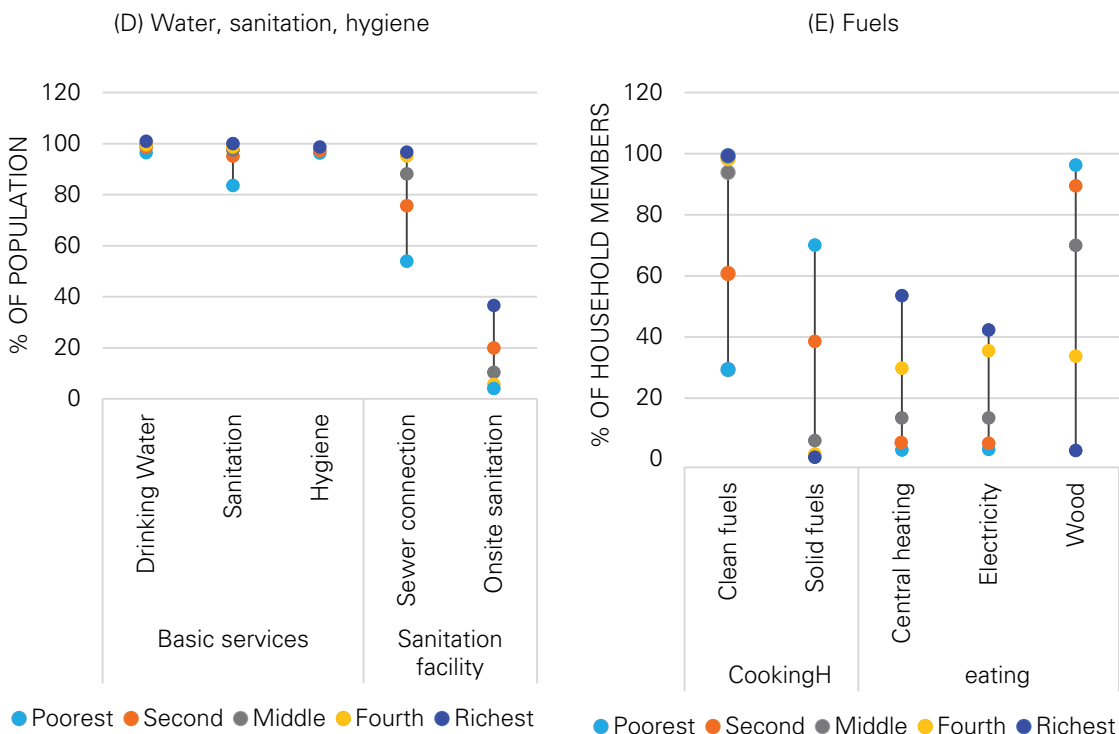
children with numeracy skills is tilted to the lower part of the distribution, but interestingly, girls from poor households consistently underperform compared to boys. Stunting is clearly more prevalent among the poorest children (**Figure 14**, panel c), which is not the case for excessive weight, likely because poorest children experience undernutrition, which inhibits incidence of excessive weight. Yet, this is not the case for the second quintile, where the share of overweight children is the highest (15.3 per cent), potentially suggesting sufficient food quantity with insufficient variety.

Drinking water and hygiene is not a problem for children in North Macedonia, but sanitation may be an issue (**Figure 14**, panel d), albeit all groups of households have high access to the basic service. However, almost half of the households lack sewer connections, while onsite sanitation is present in nearly 40 per cent of them. Over two thirds of poor households rely on

²³Minimum dietary diversity refers to providing children with foods with appropriate nutrient content. The indicator is calculated based on the percentage of children, age 6-23 months, who have received at least five of eight food groups (1) Breastmilk, 2) grains, roots and tubers, 3) legumes and nuts, 4) dairy products, 5) flesh foods, 6) eggs, 7) vitamin-A rich fruits and vegetables, and 8) other fruits and vegetables.

Figure 14: Disparities among children depending on household wealth





Source: MICS 2019

Notes: * The ECD Index is calculated as the share of children aged 36-59 months who are developmentally on track in at least three of the following four domains: literacy-numeracy, physical, social-emotional, and learning.

** The results for Roma EC development should be considered with caution due to the low number of unweighted cases.

polluting fuels and technologies for cooking that can negatively affect children’s health (particularly if the dwelling does not have proper ventilation) (Figure 14, panel e). Likewise, almost 100 per cent of the poorest households use wood for heating, the middle and fourth quintiles also having large shares.

Overall, poverty and inequality have a large bearing on the extent to which children are exposed to Covid-19 risks. Growing up in poorer neighborhoods – which

is particularly the case for Roma - affects access to a range of necessities such as good nutrition, quality housing, sanitation issues, space to play or study, and opportunities to engage in on-line schooling, but may also increase the risk of catching the virus and being a carrier, and experiencing underlying health issues, as documented by a recent OECD (2020b) study.



4. CHILDREN FACE LEARNING LOSSES

The Government closed all pre-school and school institutions in North Macedonia from 11 March 2020. The initial decision was to suspend the education process for 14 days to prevent the spread of the coronavirus. In parallel, a decision was taken to enable one parent of children up to the age of 10 (fourth grade of primary school) to take a paid leave for taking care of the minor, though the decision excluded parents of children outside formal pre-schools. As the number of new Covid-19 cases grew, on 13 March, the Government on the recommendation of the

Ministry of Education and Science (MoES) advised the national television to allocate time for broadcasting educational content in all languages of instruction. MoES and the Bureau for the Development of Education (BDE) with technical and financial support from UNICEF, worked on identifying appropriate teachers, creating a weekly schedule and making a lesson plan for each subject to be broadcasted on TV. In addition, MoES shared the content on all social networks and other communication channels. On 24 March, the Government decided

that the educational process in the primary and secondary schools was to be organized by distance learning, although each school was given the freedom to decide which means of electronic communication to use in order to maintain direct communication between teachers and students. The teachers got instruction from BDE on how to assess and grade pupils using oral and written examinations. On 30 April, it was decided to continue using distance learning modality until the end of the school year (10 June 2020). The school enrolment of children in grade 1 in primary school, moved from May to June, while the State Matura examination for secondary school leavers²⁴ was cancelled.

Few days after the school closure, MoES with the help of UNICEF, launched a national online platform Edulno. The platform was initially designed to serve as a space where teachers, educators and parents can find ideas for implementing new ways of learning through play and creative tools that foster socio-emotional development of children 3 to 10 years of age. However, UNICEF created an E-classroom on this platform with video lessons by teachers that are in line with the national curricula. The purpose of the platform was to support the learning process of children during the pandemic. Yet, ensuring quality of the educational

process and caring for the needs of all pupils during Covid-19 was fraught with difficulties. The context of the pandemic exacerbated and brought to the fore a myriad of preexisting issues within the educational system. Several governmental and non-governmental stakeholders mobilized to enable a continuation of the educational process, though further actions are needed to prepare the system for the future. This section maps the response of the educational authorities in North Macedonia to the pandemic, as well as appraises the possible impact of the physical closures of schools on access to education, the operation of the education system during closures, promising practices and ways of preventing a significant learning decline.

²⁴The State Matura is a graduation exam intended for students from high school and four-year secondary vocational education. In addition to being the final part of secondary education, it aims to serve as a selection of candidates for enrollment in higher education. The State Matura is taken according to special examination programs based on the learning objectives of the curricula in the State Matura list of modules.

4.1. BRIEF OVERVIEW OF THE PROCESS OF EDUCATION AND THE EDUCATION SYSTEM

The response to the pandemic is very important in countries struggling with the quality of the education process (Reimers and Schleier, 2020) including North Macedonia. Pupils in the country show consistently low results in the PISA testing. In PISA 2018 the results ranged from 393 for reading (which is below OECD average of 487), 394 for mathematics (with OECD average of 489) and 413 in science (with an OECD average of 489). In addition, 45 per cent of pupils attained at least Level 2 in reading, but the percentage of high performers was negligible. In mathematics, 39 per cent achieved at least level 2 and only 1 per cent scored at level 5 or higher. In science, 51 per cent scored at least Level 2, and only 1 per cent were top performers. These results show significant improvement compared to PISA 2015, and the percentage of low performers shrunk by at least nine points (Avvisati et al. 2019). However, despite this improvement, the country's education system remains burdened with a number of issues related to the teaching and learning process and student assessment (Mickoska-Raleva et al. 2017; OECD 2019a; OECD 2019).

Macedonian educational system comprises primary schools attended by children from age 6 to 11, lower secondary (11-14 years) and upper secondary schools (gymnasiums – grammar schools and vocational education schools) attended by children aged 15 to 18. Both primary and secondary education are compulsory. The pre-school institutions cater to children from around one year of age until they start primary school, but the enrolment in pre-school institutions remains very low at 36.8% in 2018/2019 (MICS 2019), even compared with the neighboring countries and well below the EU Education and Training target of 95 per cent in 2020 (Byrne, 2020).

According to PISA results, student achievement in North Macedonia is linked to the socio-economic background of their household (see also Section 3.4). Socio-economically advantaged pupils outperform disadvantaged students in reading with a 90-point difference. In mathematics and science 11 per cent and 10 per cent, respectively, of the variation in scores can be attributed to socio-economic status (Avissati et al. 2019). In addition, data from PISA 2018 shows that pupils taking the test in the Macedonian language outperform pupils taking the test in the Albanian language as shown in **Table 10** with the highest difference being in Science. These differences mean that certain groups of pupils

might be more vulnerable than others to the school closures and to the losses in learning due to switching to distance learning. This link between socio-economic status and foundational learning skills is also demonstrated by the MICS data which reveals significant inequalities in literacy and numeracy skills of 7-14-year-olds depending on wealth, place of living, educational level of the mother and ethnicity. Namely, children from urban households slightly outperform those from rural ones when it comes to foundational reading skills, but the difference is large when it comes to foundational numeracy skills: only 38 per cent of the rural children have such skills compared to 42.9 per cent of the urban children. There are also large differences based on mother's level of education. Only 45.3 per cent of children whose mothers have only primary education demonstrate foundational reading skills and 29.1 per cent foundational numeracy skills, compared to 78.7 per cent and 53 per cent respectively, of the children of mothers with higher education. Only 46.9 per cent of the poorest children have foundational reading skills compared to 79.3 per cent or the richest (see also **Figure 14**, panel b). The percentages for the foundational numeracy skills are, respectively, 28.1 per cent versus 58.1 per cent. In addition, more children from Macedonian

ethnicity (75.3 per cent) have foundational reading skills as well as foundational numeracy skills (51.2 per cent), compared to their Albanian peers where percentages are, respectively, only 56.4 per cent and 32.6 per cent. The situation is more concerning for Roma pupils as only around a third of them demonstrate basic reading skills and only about a fifth foundational numeracy skills, with those from the poorest wealth quintile showing poorer results.

Table 10: PISA results by test language

	Reading	Mathematics	Science
Macedonian	409	409	430
Albanian	355	350	365
<i>Source: PISA 2018 database</i>			

There are a number of state institutions in charge of the education process. The executive decision-making lies with the Ministry of Education and Science (MoES), the State Education Inspectorate (SEI) is in charge of quality assurance and control, Bureau for the Development of Education (BDE) develops curricula and learning standards from pre-school to secondary education except for specialized subjects for vocational secondary schools where standards and curricula are developed and monitored by Vocational Education

and Training Center (VETC). The National Examination Center is responsible for developing and implementing national examinations and certification for school principals. The Ministry of Labor and Social Policy (MLSP) is responsible for the functioning of the pre-school institutions (apart from the curricula). Schools are governed by School Boards and managed by School Principals who have a great autonomy over the school resources and the annual work plan, though are under significant political influence (OECD, 2019a). Teachers have high autonomy over pupils' assessment, but very low autonomy in curricular decisions and allocation of teaching time (European Commission, 2018). The heavy curriculum load and lack of autonomy leads to a situation where teachers are left with very little time for revision, even when necessary, and checking for understating of the material, which might contribute to significant gaps in the competencies of pupils as they progress through the educational system (OECD, 2019a). This lack of autonomy regarding the allocation of teaching time and the obligation to strictly follow the curriculum might hinder the adaptation to distance learning.

4.2. ACCESS TO EDUCATION

When it comes to ensuring the quality of the education process for all, the first step is to provide equitable access to education. Given that the decision to physically close school and pre-school premises and switch to distance learning had to be taken without much preparation, the issue of equitable access to education is paramount.

The data from the Multiple Cluster Indicator Survey (MICS 2019) show wealth, ethnicity, and urban/rural divides that may disrupt distance learning for different groups of pupils. Namely, only 10 per cent of preschool-aged children from the lowest quintile attend early education program compared to around 90 per cent from the richest (data presented in **Figure 14**, panel a). 68.5 per cent of urban children attending first grade attended preschool in the previous year and only 34.5 per cent of rural children attended preschool. Children from Macedonian ethnicity also have high attendance of early education institutions. This means that children from better-off households, urban areas and Macedonian ethnicity have higher school readiness than their peers. When it comes to higher secondary schools, only 75.5 per cent of children from the poorest quintile attend them compared to over 90 per cent for the other

quintiles. In addition, almost all Macedonian children attend upper secondary school compared to 92.9 per cent of Albanian children and only 59.9 per cent of the other ethnicities (MICS 2019). Such preexisting inequalities might instigate differential outcomes for different groups of children during the physical closure of schools.

The issue of physical access to the educational process in distance/digital learning has been identified by all the stakeholders involved in the interviews. Most of the interviewees accentuated the need for a computer and a stable internet connection as a precondition for keeping up with the educational process and most of them were aware that not all pupils have these necessary preconditions.

“INFRASTRUCTURE IS THE FIRST ISSUE; PEOPLE REALLY DO NOT HAVE EQUIPMENT AT HOME, I AM NOT SURE THAT THEY ALL HAVE INTERNET AT HOME... I AM TALKING ABOUT TEACHERS, PARENTS, CHILDREN. WE DON'T HAVE EQUAL OPPORTUNITIES TO WORK FROM HOME”

- (representative from the NGO sector) and

“YOU CAN'T ORGANIZE DISTANCE LEARNING WHEN FAMILIES DO NOT HAVE COMPUTER, LAPTOP, PHONE... MANY OF THEM DO NOT HAVE INTERNET ACCESS”

- (practitioner). The issue multiplies if the family has more than one child at home as each child needs to have access to a digital device to follow the

educational process:

“THERE ARE FAMILIES THAT DON'T HAVE A COMPUTER OR A LAPTOP OR HAVE ONE AND HAVE MORE SCHOOL AGE CHILDREN AT HOME... THE SCHEDULE... THEY HAVE OVERLAPPING CLASSES AND SO ON AND THAT IS THE BIGGEST PROBLEM FOR THE FAMILIES”

-(practitioner). However, there are no statistical figures on the number of families in such situation, so we can only use estimates for the lack of educational resources at home. Data presented in **Figure 13** portray that poorer children tend to live in household conditions that might impair learning due to overcrowding. PISA 2018 data show that some pupils might not have equal access to computers, books and materials that can help them when they learn (**Table 11**). In general, only 5.8 per cent of pupils reported they did not have a quiet place to study, while 7.7 per cent reported a lack of a computer that they could use for learning at home. In addition, around 40 per cent of students in PISA reported only one or no computer at home, implying that they might not have a computer available for an extended period of time if it needs to be shared with other siblings and parents. Around 18 per cent of pupils reported only one television set in their house which might also be problematic for access to televised lessons if other household members want or need to use it.

Table 11: Access to resources at home that can help with distance learning

	Yes	No
A quiet place to study at home	94.4%	5.8%
A computer at home	92.3%	7.7%

Source: PISA 2018 database

Most of the participants generally agree that the current situation has exacerbated social inequalities when it comes to access to education and call for actions that will uncover the causes of inequalities:

“UNFORTUNATELY, (...) THE SITUATION MARGINALIZED A LARGE GROUP OF CHILDREN AND FAMILIES AND THAT IS A BIG CHALLENGE. ON THE OTHER HAND, I HOPE THIS WILL RAISE THE ALARM FOR THE FUTURE, THAT WE START TO SERIOUSLY TALK ABOUT THESE INEQUALITIES...”

-(representative from the NGO sector). The interviews point out that there are differences in pupils’ attendance at distance/digital learning based on socio-economic background as well as urban/rural divide. As stated by one practitioner:

“IN OUR SCHOOL, WE HAVE AROUND 75-100 PER CENT OF PUPILS PRESENT AND ACTIVE IN CLASSES. HOWEVER, IN OTHER SCHOOLS, THIS IS NOT THE CASE ... WE HAVE CHILDREN FROM WEALTHY FAMILIES MOSTLY, WHILE OTHER SCHOOLS HAVE DIFFERENT SOCIO-ECONOMIC ENVIRONMENTS AND PUPILS DON’T HAVE ACCESS... WELL, THEY DON’T HAVE COMPUTERS REALLY.”

In an interview with representatives of an NGO, the rural/urban divide is accentuated:

“THERE ARE RURAL SCHOOLS... FOR EXAMPLE ONE SCHOOL IN A VILLAGE NEAR KRIVA PALANKA, WHERE CHILDREN DO NOT HAVE ACCESS TO INTERNET AT ALL AND THE SCHOOL DOES NOT HAVE ANY DIGITAL RESOURCE.”

Indeed, the SILC data show a difference in the possession of computers/laptops between rural and urban households. In the rural areas, only 66.3 per cent of the households report to have a computer/laptop at home in comparison to 74 per cent of the urban households. For poor households, the situation is even worse, as only 49.8 per cent have a computer/laptop. In addition, the proportion of rural households with more than five people is higher in rural areas (30.9 per cent compared to 20 per cent in urban areas). This means that children in rural areas, especially poor ones, children with two or more siblings and children living with a single parent may be impacted more severely by the lack of access to educational resources needed to follow the educational process. As has already been shown in Section 3.4 above, despite relatively high rate of computer ownership reported by PISA participants, more than half of the children in the country do not have access to the internet, and poor and educationally weak households are especially vulnerable in this regard (**Figure 12**).

Roma children are one of the most vulnerable groups when it comes to education. In one study of marginalized Roma communities (purposeful sampling of settlements with higher than national average Roma population), the enrolment of children in pre-school education was quite low, standing at approximately 14 per cent (UNDP, 2018), while MICS data show that only around 25 per cent of Roma children enrolled in first grade attended pre-school in the previous year. In addition, only about 70 per cent of Roma children from the two lowest wealth quintiles attend primary school and school attendance drops to 12.8 per cent for the poorest quintile for upper secondary schools. The completion rate of upper secondary education among 22-25-year-olds stands at 36.9 per cent – higher than before, but still very low compared to the non-Roma population (MICS 2019).

Marginalized Roma children tend to live in big households with more than four members (47.8 per cent), more often than their non-Roma peers (24.9 per cent). Only 37.7 per cent of marginalized Roma (MICS, 2019) reported to have computers at home. Interviewees also accentuated the issue of lack of equipment and communication channels with Roma children, especially for those living in poverty:

“AROUND 20 PER CENT OF OUR SCHOLARSHIP USERS (1ST GRADE PRIMARY SCHOOL FROM IMPOVERISHED ROMA COMMUNITIES) DO NOT FOLLOW THE EDUCATIONAL PROCESS, THEY HAVE NO MEANS TO GET INVOLVED, WE SIMPLY CANNOT GET IN CONTACT WITH THEM... SO WE TRY VARIOUS WAYS THROUGH PARENTS, NEIGHBORS, NGO ACTIVISTS, TO TAKE TEACHING MATERIALS TO THE CHILDREN, GUIDELINES, STORYBOOKS ... BUT IT IS QUITE HARD AS WE CAN'T GET INTO HOMES WITH THE PROTECTIVE MEASURES”

-(representative from the NGO sector). The schools also show certain level of helplessness when it comes to these pupils primarily because they do not have a systematic approach to helping pupils in need:

“WE HAVE ABOUT 30 ROMA PUPILS IN OUR SCHOOL (OUT OF 980); THEY LIVE WITHOUT BASIC STUFF, LET ALONE SOMETHING MORE... WE HAVE CONTACTED THEM ... IT IS UP TO DIFFERENT ORGANIZATIONS, PEOPLE, COMPANIES TO HELP THEM GET INVOLVED”

-(practitioner).

There is also a systemic problem of the lack of data on the socio-economic status of pupils at the school level, which makes it harder to evaluate the need for help with access to education. Vulnerable pupils reacted that they did not have internet access and IT devices so that the child could follow the teaching. We tried to get data from the schools, but they thought we will give free computers and internet to

everybody, so we did not get the real picture of how many children really need computers or internet (government official). Then, the Ministry of Labour and Social Policy provided USB sticks for mobile internet access to about 30,000 pupils from among social assistance recipients. Some interviewees mentioned that a number of companies donated computers to needy pupils. These act remedied the situation somewhat, but educators and NGO representatives point out that some needy pupils, whose households do not receive social assistance were left out.

A number of interviewees highlighted access issues faced by schools and staff:

“TEACHERS LIKEWISE NEED EQUIPMENT AS THEY USED THEIR OWN... WHAT THEY HAVE AND WHAT THEY MANAGED TO FIND. SO, WE NEED TO WORK ON ENABLING IT EQUIPMENT IN SCHOOLS THAT TEACHERS CAN FOR WORK WITH”

- (government official). This is even more important in the case of schools located in remote areas, rural schools and schools in generally deprived areas; the need for action has also been recognized by the NGO sector:

“WE TRY TO SEE WHETHER WE CAN SUPPLY SOME RURAL SCHOOLS WITH CERTAIN EQUIPMENT, LAPTOPS, COMPUTERS, EVEN LAPTOPS FOR THE PUPILS THAT THEY CAN USE NOT ONLY IN TIMES OF CRISIS, BUT ALSO IN REGULAR CLASSES.”

Children with disabilities are a particularly vulnerable group as they need individualized approach in education. The country commenced the inclusion of children with disabilities in regular schools, but a number of people and institutions active in education for children with disabilities think that the process is difficult to implement in practice. The obstacles to inclusion are mostly related to the categorization of children with disabilities, problems in their assessment, lack of supporting staff and institutional cooperation, lack of training for professional development of teachers (Ombudsman of the Republic of Macedonia, 2016). There is no complete data on the number of children with disabilities in regular schools. The teaching staff lacks sufficient methodological and didactical preparation for working with children with disabilities, there is a lack of complete specialized teams for work with these children in a number of schools, and a lack of financial resources to equip regular schools with supporting materials for children with disabilities (Parent Resource Center). Teaching plans in the schools are focused on teaching activities rather than learning, and the approach to the children is still very medically oriented (Hollenweger and Martinuzzi, 2015). This means that in the current situation children with disabilities might be left to their

own devices more often than their peers without disabilities, as schools have only started implementing inclusive education and are not equipped to deal with the issues they are facing in the context of distance learning.

For access to education at the time of distance learning, children with disabilities need not only internet access and digital devices, but also specialised equipment to access teaching materials and complete assignments:

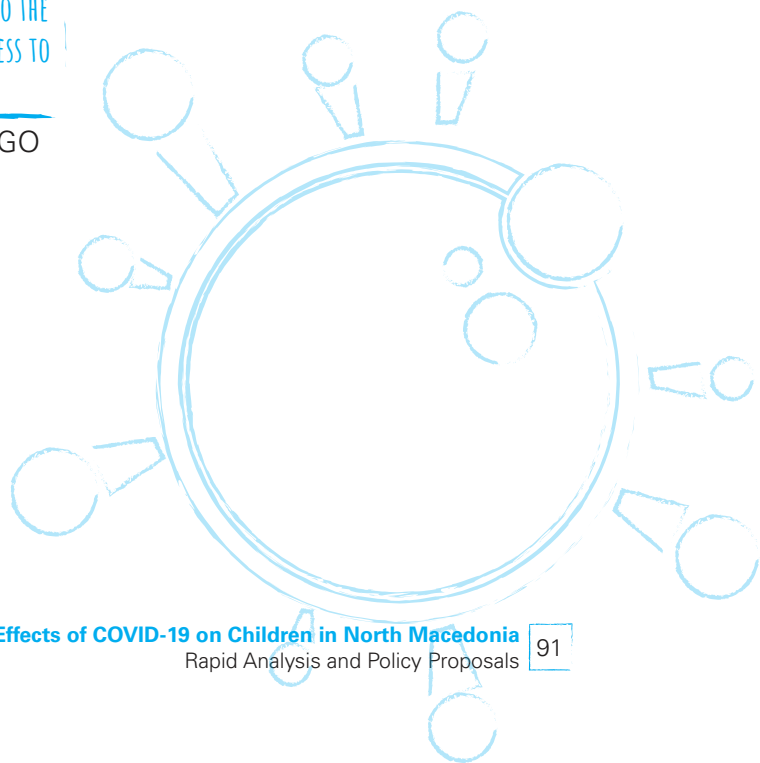
"WE HAVE CHILDREN WHO CANNOT USE THE COMPUTER IN THE STANDARD MANNER. THEY DO NOT HAVE ASSISTIVE TECHNOLOGIES AT HOME, SO THEY CANNOT ACCESS THE COMPUTER AND THE EFFECTS OF DISTANCE LEARNING ARE FORGONE. FOR EXAMPLE, A CHILD WITH CEREBRAL PALSY HAS A COMPUTER AT HOME BUT CANNOT USE IT DUE TO LIMITED HAND MOVEMENTS, HE CANNOT HOLD A REGULAR MOUSE. THIS IS NOT RELATED TO THE INTELLECTUAL ABILITIES, BUT TO THE ACCESS TO TECHNOLOGY"

- (representative from the NGO sector).

A complex mix of enabling solutions is required, and this needs further planning and support. At the moment the NGO sector is involved in helping state institutions and the children:

"IN ONE OF OUR INITIATIVES, WE COLLABORATED WITH PARTENIJ ZOGRAFSKI, THE CENTRE FOR CHILDREN WITH IMPAIRED HEARING, AND WE REALIZED THAT THEIR RIGHT TO EDUCATION IS HINDERED. WE NOW STARTED AN INITIATIVE WHERE MOES AND BDE WILL ENABLE THE USE OF SIGN LANGUAGE IN THE EDUCATIONAL PROGRAMS OF THE NATIONAL TELEVISION, SO THAT THESE CHILDREN CAN FOLLOW THEM."

There is awareness of the issues at the governmental level as well, but there is also apprehension that these issues are especially hard to address even in regular circumstances.



4.3. THE IMPACT OF THE COVID-19 ON EDUCATION AND ON CROSS-SECTORAL OUTCOMES

4.3.1. Fast practical switch without unification

Schools' and teachers' preparedness to provide quality education for all is the key concern during pandemic. One of the main criticisms of the educational system is that schools spend too much on staff compensation and not enough on capital investment, whereby some – mostly disadvantaged – schools are left without enough funding (Byrne, 2020). Having this in mind, most of the interviewees stressed that the country managed to mobilize the available resources and provided a good and relatively fast response to the pandemic and continue the education process in the conditions of school closure despite the lack of strategy for such situations:

SO, GENERALLY SPEAKING, THERE WAS NO STRATEGY, JUST MEASURES DESIGNED TO SUPPORT LEARNING IN THE CURRENT SITUATION. GIVEN THE CIRCUMSTANCES, I THINK THEY MANAGED TO GET THE MAXIMUM POSSIBLE RESULT

- (representative of the NGO sector). The government official praised teachers and other practitioners for the job well done and said that this proves the professional potential of the

teaching staff. Educators noted that they received guidelines and were generally satisfied with communication with the MoES, although they would have preferred to receive guidelines and instructions for distance learning sooner and as a complete package. Positive examples include the launch of the TV classroom few weeks after the physical closure of schools and the platform Edulno (see **Box 2**).

Most of the interviewees were critical of the lack of strategy for real integration of digital learning before the pandemic, although there was a legal provision for schools to implement ICT in teaching and learning. This is a fragment of a routine self-evaluation and integral evaluation (State Education Inspectorate, 2014) by an educator:

I AM AWARE OF VARIOUS STRATEGIES FROM MOES OR FROM THE OTHER MINISTRIES AND THEY EXIST ONLY ON PAPER AND THEIR REALIZATION IS QUESTIONABLE. IN ADDITION, IN THE OLD STRATEGY FOR DEVELOPMENT OF EDUCATION 2010-2015 THERE WAS NO MENTION OF DIGITAL LEARNING. THE NEW ONE 2018-2025 MENTIONED DIGITAL LEARNING ONLY ONCE IN THE PART FOR HIGHER EDUCATION...SO IN ALL THESE DOCUMENTS IN THE PAST 10 YEARS WE DON'T EVEN MENTION DISTANCE OR DIGITAL LEARNING.

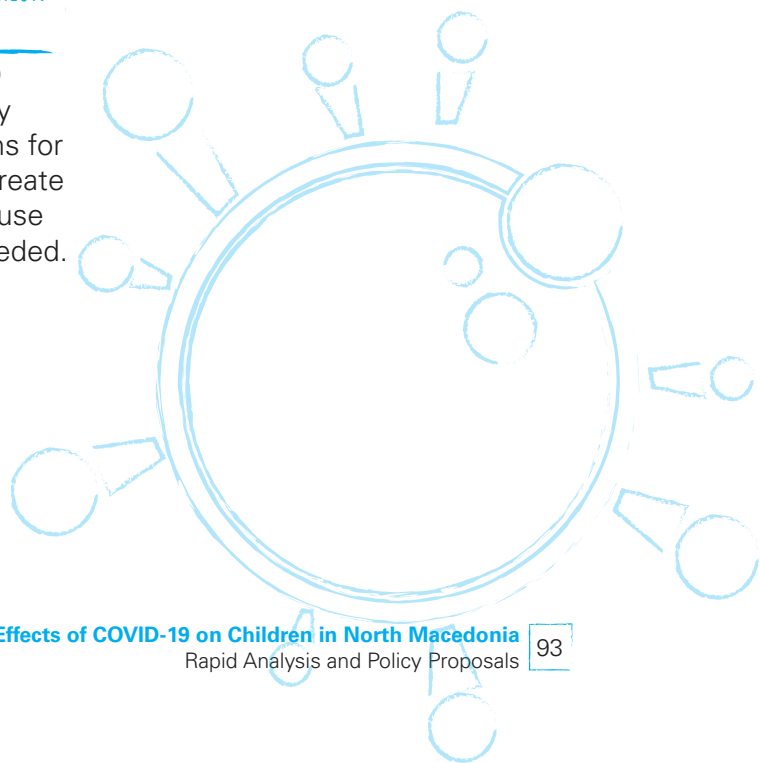
The government officials also stress that the country does not have legal framework for distance learning, which complicates the situation:

WE DID NOT HAVE DISTANCE LEARNING AS A COUNTRY, NOT EVEN IN THE LEGAL FRAMEWORK ... THAT IS THE BIGGEST HURDLE AND CHALLENGE

- (government official). Some interviewees also noted the need for action plans connected to a certain strategy that would help the implementation of educational activities in various circumstances:

A CLEAR WRITTEN INSTRUCTIONS ARE NEEDED, AS A PLAN WITH PHASES AND STEPS IN IMPLEMENTATION OF ACTIVITIES OF THIS TYPE OF TEACHING. THAT WAY, TEACHERS CAN CONSULT WITH EACH OTHER, COMMUNICATE, SHARE GOOD PRACTICE, GET ADVICE... BUT, IT IS CRUCIAL TO HAVE THIS PRESCRIBED BY MOES AND BDE, WITH SOME FLEXIBILITY FOR INDIVIDUALIZATION AND IMPLEMENTATION IN THE MOST APPROPRIATE WAY

- (representative of the NGO sector). Therefore, the country needs to make legal provisions for distance learning as well as create a strategy that will guide the use of distance learning when needed.



BOX 2: PROMISING PRACTICES WHICH ENSURED CONTINUED EDUCATION FOR ALL DURING COVID-19

TV lessons broadcasted on the national television and E-classroom on the Edulno platform (<http://edulno.gov.mk/>) – two supportive tools launched shortly after the outbreak – remain to be useful and promising practices for supporting the learning process during pandemic. *At the beginning, we started with a TV show on the National Television “TV classroom” in Macedonian and Albanian languages, and occasionally in Turkish and Serbian. From the second week onwards we have had content for all nine grades of primary school. With the involvement of BDE, lectures are in line with the curricula; then, the teachers get instructions and they realize it* (government official). The main idea was to support the learning in the areas that were deemed to be most important: mathematics, mother tongue and science skills, as well as provide support to early learning. The quick adaptation of an online platform serving a valuable resource for the pre-school and primary school settings has been highly commended by interviewees. *The process of the creation of a platform has been already started, while the pandemic prompted intensification. So, now, we have around 200 videos from the pre-school staff to serve a resource in children’s education* (government official).

The TV lessons and the E-classroom serve as a valuable resource for practitioners and parents in enhancing children’s learning, especially in the early years. It also mobilized the staff and enhanced their motivation in supporting children’s learning: *In addition to the e-classroom, we have e-playgroup on YouTube, with the teaching staff involved in the production of videos. At the beginning it was a bit weird, but based on the feedback from the parents, we saw children were happy and wanted more* (educator). The impressive interest in the platform and video materials is supported by the statistical data provided by SmartUp Innovationlab. A summary provided on 27 May 2020 shows that the e-playgroup had 301 videos with more than 200,000 views, while the e-classroom for primary schools consisted of 501 videos with more than 1,300,000 views.

Although a promising and scalable initiative, the platform still lacks materials for secondary schools, and the increased variety of subjects at this level, especially in vocational schools, will be a challenge for developers. The work is now underway, as one practitioner from a vocational school noted, and there are coordinators for different subject fields working on organizing the creation of video lectures. Part of the problem with the secondary school also lies in the lack of teacher preparedness for using digital tools: *We put a lot of effort to get good*

materials but the results were disappointing at the beginning... then, they said they lack sophisticated equipment and also skills to do that (government official), meaning that engaging with teachers and providing training for digital tools in education as part of their professional development is needed.

The platform is seen as a highly valuable resource by all interviewees although they noted the lack of features to enable two-way communication. This is a valid remark given that teaching and learning processes requires such interaction and active engagement of learners. Therefore, the usage of the platform is presently a supplementary resource: *Through a short survey, we found that the main way in which teachers use our platform is for revision of the material or preparation of classes where children view the content of the e-lesson and then the teacher takes over with questions, assessment, feedback, discussion* (NGO representative).

The new working group is now working on proposing a concept for an interactive platform that could be used in regular schooling as well, so some content can be used when the children are in school as well or when they are sick or off-school for various reasons (government official). The upgrade will provide further functionalities: *We have tested a concept of e-test, not for assessment per-se, but as a way for pupils to self-appraise their knowledge. We are also testing the e-schedule because we realized that one of the problems of educators was the non-formal communication. We want to move towards a platform where each pupil and teacher have their own username and password and they can log into the platform and follow lectures, get grades etc.* (NGO representative).

UNICEF and Open the Windows, in collaboration with MoES, have likewise created a platform for helping children with disabilities and their parents (<https://otw.assistive.mk/>), by providing individualized teaching and learning plans to all children that needed such a plan. The advice and plans are not only for children in school, but also for those of the pre-school age. However, according to the representative from Open the Windows, the missing link in the platform are teachers, which is something that needs special attention in the future.

4.3.2. Preparedness of schools and teachers

PISA 2018 data in **Figure 15** reveal school principals' opinions on practices and policies that aid the utilization of digital devices in the teaching and learning process. Apart from discussions on digital devices for pedagogical purposes, most of the schools did not consider preparedness to using digital devices. This lack of policies at the school level might have hindered the implementation of distance learning, as at the onset of the pandemic the governmental gave freedom to each school to decide on the organization of the process. This made education shift unequal for pupils: some schools adapted quite quickly while others still find it hard to function:

“SOME SCHOOLS RAISED TO THE CHALLENGE QUICKLY AND GAVE SPECIFIC INSTRUCTIONS TO THE TEACHERS ON THE STRUCTURING OF THE TEACHING AND LEARNING PROCESS, PLATFORMS TO BE USED, REGULATED THE FLOW OF INFORMATION; WHILE, OTHERS LEFT TEACHERS TO THEIR OWN DEVICES; THEY ARE JUST TRYING TO GET THROUGH THIS PERIOD, PROVIDE SOME MATERIALS TO SHOW THAT THEY WERE ACTIVE”

- (representative of the NGO sector). The interviewees pointed out that most of the teaching staff used Viber to communicate with pupils, while more technically advanced teachers used synchronous-communication tools such as Zoom, Google Classroom, Microsoft teams and specialized

learning-support platforms like Kahoot and Edmodo, which offer options for quizzes, assignment sharing and advanced support to the teaching and learning process. Yet, teachers expressed concerns over the lack of a unified the approach driven by practicalities like licencing and constraints of the basic versions of the software:

“WE NEED TO CHOOSE A LICENSED EDUCATIONAL PLATFORM AND A UNIFIED APPROACH FOR ALL SCHOOLS, ACCOMPANIED BY TRAINING FOR THE TEACHERS. WE CAN'T USE MANY DIFFERENT PLATFORMS; MOREOVER, THERE ARE LIMITS LIKE THE NUMBER OF PUPILS AT A TIME, THE TIME TO SPEAK, IMPOSSIBILITY TO MAKE A TIMETABLE AND SO ON.”

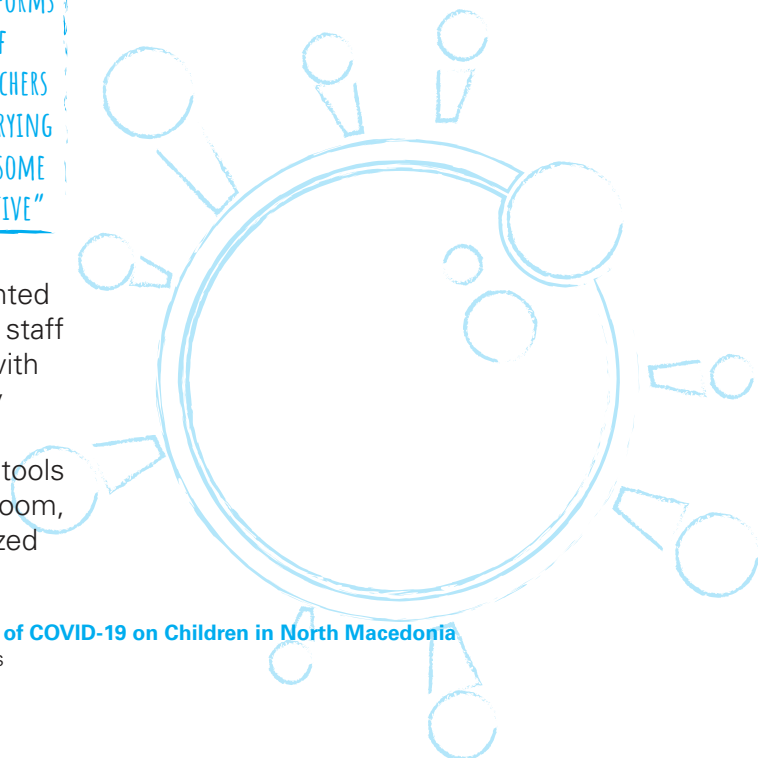
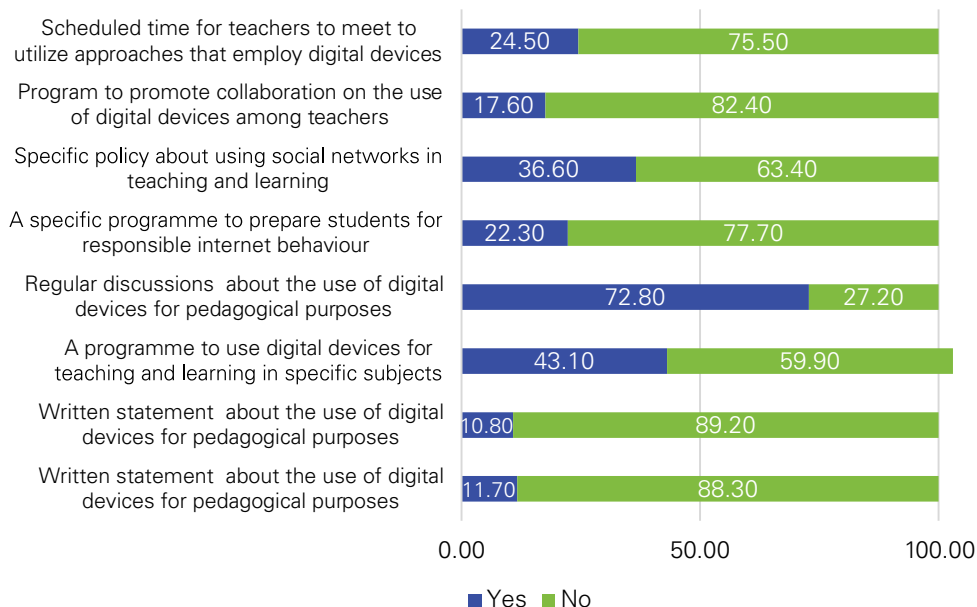


Figure 15: School practices and policies that promote use of digital devices



Source: PISA 2018 database: School questionnaire data

PISA 2018 data suggest that the majority of school principals deemed their staff was prepared for integrating digital devices in their teaching, and had enough time and incentives to integrate digital devices into teaching and learning process (**Figure 16**). On the other hand, a big share of them thinks that there were insufficient resources for teachers to learn how to use digital devices, while about 40 per cent note the lack of technical assistance staff. These notions of principals are shared by government officials:

"OUR TEACHERS RECEIVED TRAINING FOR THE USE OF ICT IN REGULAR CLASSES; THEY WERE OBLIGED TO USE IT IN AT LEAST 30 PER CENT OF THE CLASSES."

However, the same government official was aware that distance learning requires a new skill set:

"WE HAVE A NEW SITUATION NOW WHERE YOU NEED TO REALIZE THE WHOLE PROGRAM USING DISTANCE LEARNING AND THAT REQUIRES NOT ONLY KNOWLEDGE OF TECHNOLOGY, BUT SOME OTHER SKILLS AS WELL CREATIVITY, NEW WAYS OF THINKING, MORE ENGAGEMENT."

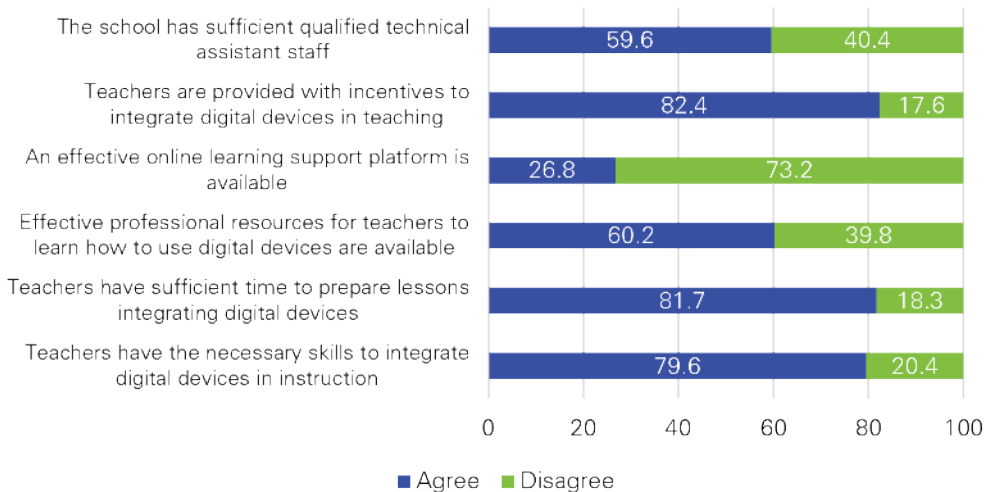
Nevertheless, lack of teachers' preparedness has been apparent in all interviews and many of the participants suggested that short training sessions would not be enough for teachers to change their way of teaching:

"OUR MODERN TEACHER IS NOT REALLY PREPARED FOR TEACHING IN THE 21ST CENTURY: THERE ARE NOT ENOUGH TRAININGS AND MOST OF THEM ARE QUITE SHORT REALLY. YOU CAN'T MAKE A SHIFT IN SOMEONE'S THINKING IN A DAY AND A HALF. OUR TEACHERS ARE STILL JUST AT THE MEMORIZATION LEVEL, BEING OUR BIGGEST PROBLEM. WE INFORM TEACHERS ON THE NEWEST DEVELOPMENTS, BUT WE FAIL TO CHANGE THEIR MIND SET"

- (educator).

Principals in PISA 2018 were also critical of the lack of educational materials and 63.4 per cent thought that this affected the education process to some extent or a lot; half of the principals stated that educational materials are of poor quality. Interviewees pointed out the lack of digital teaching material, which was, however, somewhat remedied with the TV classroom broadcasted on the national television and the Edulno platform (see **Box 2** for details). Around one fifth of the principals in PISA 2018 thought that pupils' learning was hindered by staff resisting change, which is quite important when staff needs to adapt to

Figure 16: Schools' capacity to enhance teaching and learning using digital devices



Source: *PISA 2018 database: School questionnaire data*

distance learning quickly:

THERE ARE TEACHERS QUITE RESISTANT TO CHANGE, THEY FEEL QUITE COMFORTABLE WITH THE TRADITIONAL TEACHING, MAYBE DUE TO THEIR AGE OR GENERAL READINESS

- (government official). Another fifth of principals stated that pupils' learning was hindered by teachers' not paying individual attention:

MEASURES UNDERTAKEN ARE NOT ADAPTED TO THE NEEDS OF CHILDREN. IN A NUMBER OF CASES THE TEACHING PROCESS WAS REDUCED TO SENDING TASKS AND INSTRUCTIONS WITHOUT ANY ACTIVE INVOLVEMENT OF THE TEACHER AND WITHOUT USING ANY OF THE AVAILABLE PLATFORMS. THIS PRACTICALLY MEANT THAT PARENTS FOUND THEMSELVES IN THE POSITION OF TEACHERS AND [THEY] ARE IN NO WAY EQUALLY PREPARED TO SUPPORT LEARNING

- (representative from the NGO sector).

The experience of the teachers in North Macedonia is not dissimilar to the experiences of teachers worldwide. The School Education Gateway survey of European teachers found that for two thirds of respondents, the closure of schools has led to their first experience of online teaching which has been both positive and challenging. The most significant positive experience was the ability to innovate in practice. The biggest problems were pupils' access to technology; keeping all pupils motivated and

engaged; and involving pupils from socially disadvantaged homes. Governments and national agencies responded by producing guidance for teachers on how to use the available technology options and the pedagogical issues around online learning. Professional development webinars and online training have helped raise skill levels (School Education Gateway, 2020). Therefore, teachers need to be properly supported by enhancing their resilience, supporting their instructions to pupils and supporting them technologically to ensure teacher effectiveness (World Bank, 2020).

4.3.3. Learning, materials and assessment

The lack of unified approach to the organization of the teaching and learning process resulted in pupils receiving too many different tasks simultaneously, causing them to feel overburdened with tasks and calling the quality of learning into question. Moreover, certain teachers used inappropriate timing to send assignments, while others were just passive. This is in line with a recent study (Inchley et al. 2020) which showed that pupils in North Macedonia aged 11-15 reported increasing pressure by schoolwork as they aged, which was higher than the average of the countries surveyed. The pressure was felt differently by the two genders

and by different socio-economic groups: children from a low socio-economic background reported least pressure (44 per cent of boys and girls felt pressure), and girls from affluent families felt most pressure (59 per cent).

Certain aspects of learning seemed to be harder to organize for upper secondary schools during distance learning, mainly handling various teaching areas, especially in vocational education:

VOCATIONAL SCHOOLS NEED TO IMPLEMENT WHAT THEY LEARN THEORETICALLY; IT IS PRESENTLY A BIG PROBLEM HOW TO ORGANIZE PRACTICE. THE SAME APPLIES TO CERTAIN SUBJECTS IN GYMNASIUMS, WHERE EXPERIMENTS ARE NEEDED IN PHYSICS, CHEMISTRY, BIOLOGY

- (NGO representative). The practitioners in vocational schools wait for instructions on the execution of the compulsory practical training, while state officials seek advice from the Infectious Diseases Committee:

THE COMMITTEE ADVISED US THAT PRACTICAL TRAINING SHOULD BE POSTPONED UNTIL SEPTEMBER AND WE SIMPLY WAIT TO SEE HOW THE SITUATION UNFOLDS

- (government official).

Pupil assessment in pandemic has been a hotly debated issue. The state officials underlined that they prepared instructions for pupils' assessment. However, interviewees found them too broad and vague. When this is

coupled with parents' lobbying for better grades, the online assessment may turn into failure if not conducted in a structured way which ensures that tests reflect pupils' real knowledge and skills:

TEACHERS USE FORMATIVE AND SUMMATIVE ASSESSMENT IN CLASSROOM SETTING... THIS IS COMPLETELY DIFFERENT NOW... WE FACE SITUATIONS WHERE THE CHILD IS TAKING A TEST AND THE MOTHER IS HOLDING THE BOOK UNDER THE TABLE. WE NEED TO DEVELOP STRATEGIES FOR ASSESSMENT

- (educator).

4.3.4. Preparedness of parents

The lack of teaching materials and insufficient preparedness of teachers to switch to distance learning forced parents to actively engage in the educational process:

WE HAD A SITUATION WHERE PARENTS NEED TO READ THE MATERIAL FIRST, NEED TO DO SOME RESEARCH AND LEARN FIRST SO THAT THEY CAN TEACH THEIR CHILD

- (NGO representative). This situation aggravated the inequality in the level of support that parents could provide to their children:

PARENTS NEED TO BE VERY ACTIVE AND WORK WITH THEIR CHILDREN AT HOME, AND I AM NOT SURE HOW MANY PARENTS CAN DO THAT. I AM NOT SAYING THAT THEY DO NOT WANT TO, BUT I AM JUST NOT SURE THAT ALL PARENTS HAVE THE NECESSARY SKILLS TO DO THAT, OR DIGITAL SKILLS

- (NGO representative).

Higher level of parental support has already been linked to higher PISA scores (OECD, 2019), and children who lack parental stimulation and support will likely be more impacted by school closures. MICS 2019 finds that 69 per cent of children aged 7-14 received support around their homework at home and that parents from the two lowest wealth quintiles are generally less involved in school activities, school management, and events. Macedonian and urban parents reported higher involvement, and the learning environment in these households has been assessed as more stimulating. Parents with lower socio-economic status who have been absorbed with bare survival were making their children vulnerable to loss of learning:

WE USUALLY HAVE PROBLEMS WITH MARGINALIZED GROUPS AND SOCIALLY VULNERABLE CHILDREN WITH THEIR SCHOOL ATTENDANCE, AND IT IS EVEN HARDER NOW TO MOTIVATE THEM

- (NGO representative).

4.3.5. Education of vulnerable children

Some groups of children are strongly affected by socio-economic inequalities when it comes to learning. A notable example is Roma children who are more likely to attend segregated schools (with the percentage increasing with years and reaching 40 per cent in 2017), which leads to low-quality education due to poor infrastructure and lack of resources, as well lower teacher qualifications and higher turnover (UNDP, 2018). Roma parents are also not sufficiently involved in the school-related activities and they report less stimulating home learning environment. In addition, only 43 per cent of Roma children speak the language of instruction at home (MICS 2019). A number of NGO organizations mobilized their existing resources to aid the educational process for children at risk:

WE WORK WITH CHILDREN AT RISK OF SCHOOL DROP-OUT AND THOSE ARE USUALLY FROM FAMILIES AT RISK, MOSTLY ROMA CHILDREN. THEY MAY LOSE CONTINUITY AND BE EVEN MORE VULNERABLE AS THEIR PARENTS DO NOT COMPREHEND BENEFITS OF EDUCATION. WE WORK WITH MEDIATORS, THEY BRING MATERIALS, WORK WITH THE CHILDREN, SO THEIR ROLE HAS CHANGED FROM MEDIATOR AND TECHNICAL SUPPORT TO A TUTOR

- (NGO representative).

Another particularly vulnerable group is children with disabilities.

WE CAN SAY THAT ALL SCHOOLS ARE INCLUSIVE NOW AS WE TAKE ON BOARD ALL CHILDREN, BUT INCLUSION IS MUCH MORE THAN JUST PHYSICAL PRESENCE. TO WHAT EXTENT ARE WE PREPARED TO HAVE DISTANCE LEARNING WITH SUCH CHILDREN? WE NEED A STRATEGY AND TRAINING ON HOW TO REALLY INCLUDE THESE CHILDREN IN TEACHING AND LEARNING. WE NEED GUIDELINES ON WORKING WITH THESE CHILDREN. THESE VULNERABLE GROUPS ARE AT EVEN HIGHER RISK AT THE MOMENT

- (educator). Interviewees were aware that the usual support mechanisms such as personal assistant and specialized assistive technology are unavailable for many children during the pandemic. Some organizations providing support to children with disabilities stepped up their effort:

CURRENTLY, WE PROVIDE TWO TYPES OF SERVICES: ONE IS ADVICE TO PARENTS ON HOW TO WORK WITH THEIR DISABLED CHILDREN IN THE HOME ENVIRONMENT; AND THE OTHER IS SUPPORT TO TEACHERS IN ADAPTING THE TEACHING MATERIALS TO THE NEEDS TO THESE CHILDREN

- (NGO representative). However, the support such organizations provide is related to their existing projects, so a systematic provision of such services is lacking. Realizing the need for a more structured help, MoES in collaboration with UNICEF²⁵ and Open the Windows has launched an on-line repository of resources to help children and families, and a range of materials can also be

found on the websites of the special schools.

4.4. SUPPORTING FAMILIES IN PROVIDING CARE AND LEARNING SUPPORT OF PRE-SCHOOL CHILDREN

There is a broad understanding among the research participants of the importance of early learning and of addressing their learning and care needs during this crisis, as opposed to the popular opinion that pre-schools are not a learning environment for children.

"MOST PEOPLE IN THE COUNTRY THINK THAT PRE-SCHOOLS ARE JUST PROVIDING CARE OF EATING AND SLEEPING. THE FIRST SIX YEARS ARE VERY IMPORTANT FOR CHILD DEVELOPMENT AND WE NEED TO WORK ON CHANGING THE MENTALITY OF THE PEOPLE"

- (educator). Most of interviewees state that early learning is important and that there are a number of children and families left on their own during the pandemic.

"THE MOST CRITICAL PERIOD NOW IS PRE-SCHOOL. THESE CHILDREN ARE IN A PERIOD WHEN THEY MOSTLY NEED SOCIALIZATION, PHYSICAL CONTACT, LEARNING AND PLAYING, WHILE NOW THEY ARE LEFT WITH THEIR PARENTS OR EXTENDED FAMILY, SOME OF WHOM ALSO NEED TO WORK. IT IS NOT JUST ABOUT CARE; IT IS ABOUT EDUCATING CHILDREN AS WELL"

- (NGO representative).

²⁵More details can be found by following this [link](#).

MICS data (**Table 12**) reveal divisions in childhood experiences that might have differential impact on the ability to engage in distance learning for different groups of children. Preschool-aged children from the poorest quintile are surrounded by a less stimulating learning environment than their peers from the richest quintile. Fewer of the former have books at home. Urban preschool-aged children are engaged in more activities promoting school readiness than rural ones, and more of them have access to books. Children of Macedonian

ethnicity seem to have more stimulating activities and more home possessions stimulating learning compared to their peers from other ethnicities. Roma children are greatly affected by the lack of parental support for learning in the early years, as only 55.3 per cent of those aged 2-4 years have been engaged in activities promoting learning and the average number of activities is only 3.7. Only 14.5 per cent of Roma children have more than 3 books at home and only 49.8 per cent have more than three playthings at home. This means

Table 12: Divisions in childhood experiences based on activities promoting school readiness and learning

	Children aged 2-4 years, with whom adult household members engaged in four or more activities (%)	Mean number of activities in which any adult household member engaged with the child	3 or more children's books in the household (% of households)	Two or more types of playthings
Area				
Urban	91,4	5,3	61,8	67,3
Rural	83,4	4,9	43	52,7
Wealth index quintiles				
Poorest	69,7	4,2	17,2	48,2
Second	88,3	5	44,9	55,2
Middle	94,5	5,5	57,8	62,9
Fourth	94,3	5,6	75,4	68,8
Richest	99,4	5,8	83,9	75,3
Ethnicity				
Macedonian	97,1	5,6	78,6	71,6
Albanian	80,5	4,8	27,4	39,9
Other	73,8	4,3	26,3	67,8
<i>Source: MICS 2019.</i>				

that some pre-school children might be heavily impacted by the lack of educational activities and parental engagement during the pandemic.

Pre-school staff kept supporting parents to stimulate early learning and development of children by proposing activities that they can do with their children:

“STAFF AND PARENTS CREATED VIBER GROUPS AND THE PROGRESS OF THE CHILDREN HAS BEEN TRACKED THROUGH THAT. STAFF SHARED ACTIVITIES AND PARENTS REPLIED WITH PHOTOS OF THE ACTIVITIES OR CREATIONS”

-(government official). In certain cases, the staff provided extended support:

“WE TALK TO PARENTS ABOUT THE PSYCHOLOGICAL STATE OF THE CHILD, WE GIVE THEM SOME STRATEGIES FOR SOCIO-EMOTIONAL DEVELOPMENT WHILST AT HOME”

-(educator). Yet, because the whole process is left to the individual pre-school institutions, there is a risk that a number of children may miss out on educational opportunities during the pandemic. As for schools, it is important to create a strategy that will guide all practitioners in supporting early learning for children:

“THE PRIORITIES AT THE MOMENT INVOLVE CARE FOR MENTAL HEALTH OF CHILDREN AND THEIR SOCIAL AND EMOTIONAL DEVELOPMENT. YET, WE NEED PROTOCOL FOR EARLY LEARNING AND CARE IN STATE OF EMERGENCY. OUR PROGRAMS ARE ALL BASED ON PHYSICAL PRESENCE”

-(educator).

The pandemic highlighted the need for the creation of educational materials to be used in home environments to stimulate learning and development. It also brought to the fore the need to support all parents and children regardless of where they live and of their family circumstances:

“FOR PRE-SCHOOL CHILDREN, WE NEED EVEN MORE INTERACTION; WE NEED A PERSON WHO IS CHARMING, JOYFUL, ENERGETIC TO INSTIGATE ATTENTION AND PLAYFULNESS IN LEARNING. WE ALSO HAD AND WE ARE STILL WORKING ON GETTING EVEN MORE ACTIVITIES ONLINE THAT WILL BE HELPFUL IN HOME ENVIRONMENTS. UNICEF ADDRESSED THAT TO AN EXTENT WITH THE CREATION OF DIGITAL MATERIALS, BUT I THINK WE NEED EVEN MORE. WE ARE TOO CENTRALIZED ON SKOPJE AND URBAN AREAS, WHILE WE NEED TO REACH PARENTS IN RURAL AREAS”

-(NGO representative).

4.5. POSITIVE EXTERNALITIES

The crisis mobilized all education stakeholders and brought about a few positive externalities. First, all interviewees highlighted the solidarity among all stakeholders:

“THE SOLIDARITY INCREASED: THE TEACHERS ARE HELPING EACH OTHER, FAMILIES ARE HELPING EACH OTHER, ESPECIALLY WHEN IT COMES TO THE SOCIALLY DEPRIVED CHILDREN”

- (NGO representative). Numerous companies expressed solidarity by donating equipment to pupils in need, teachers – by getting involved in the TV classroom and in the preparation of videos for the platform; interaction between government officials and schools increased. Particularly notable is the mobilization of the NGO sector in providing training and support to teachers on using various distance-learning platforms.

“THIS SITUATION ENCOURAGED US TO SAY: ‘WELL, WE WERE ABLE TO DO ALL THOSE THINGS!’, TO ADAPT TO THE AVAILABLE PLATFORMS AND TO LEARN WHAT WE DIDN’T KNOW, AND EVEN SOME OF OUR OLDER COLLEAGUES – LITERALLY CLOSE TO RETIREMENT – ARE VERY PERSISTENT AT LEARNING NEW THINGS”

- (educator). One of the most notable examples of civic and professional solidarity is the mobilization of groups of teachers for sharing good practices, providing advice to each other and motivating each other using

various social networks like Facebook, Messenger and Viber.

THE POSITIVE SIDE OF IT IS THAT CERTAIN TEACHERS GOT A CHANCE TO BE RECOGNIZED FOR THEIR WORK AND TO SHOW THEIR CREATIVITY. BEING EXPOSED TO THE PUBLIC, SOME TEACHERS ARE NOW FEATURED THROUGH SOCIAL NETWORKS, SCHOOL WEBSITES, SO THEY CARE MORE ABOUT THE QUALITY OF THE MATERIALS AND TASKS. THEY ARE NOW ACCOUNTABLE NOT ONLY TO PUPILS, BUT TO THE PUBLIC AS A WHOLE

- (NGO representative).

Government officials believe that the current momentum of the proliferation of the usage of ICT in education needs to be capitalized on, as resistances to ICT had been confronted for long.

“WE NOW HAVE MADE A LEAP AND WE NEED TO USE THIS IN THE FUTURE. WE NEED TO INCLUDE ICT USAGE IN THE CURRICULA, IN THE LEARNING PLANNING, THOUGH WE NEED TO EXPAND EQUIPMENT ACCORDINGLY, ADAPT THE LEGAL FRAMEWORK, AND FIND A COMPELLING WAY THAT THIS BECOMES CONSISTENT PART OF TEACHERS’ WORK”

- (government official).

Having in mind the need for sustaining the effects of such mobilization within the education sector, a number of interviewees emphasized the need to rethink the educational process. A number of them called for an in-depth analysis of the situation and evidence-based decision-making for integrating digital learning into the regular curriculum:

"WE SHOULD NOW WORK ON ANALYZING WHAT HAPPENED IN THE LAST FEW MONTHS, TO SEE WHAT WORKS AND WHAT DOESN'T, AND DEVELOP MODELS FOR THE EDUCATION PROCESS THAT CAN BE IMPLEMENTED FROM SEPTEMBER ONWARDS. WE CAN'T THINK OF DIGITAL EDUCATION ONLY AS PART OF CRISIS RESPONSE - IT NEEDS TO BE IMPLEMENTED AS PART OF THE REGULAR CLASSES"

- (NGO representative).

Interviewees called for an overhaul of the educational system, starting from curricula, teacher training and support:

"WE NEED TO THINK ABOUT BLENDED LEARNING. THERE IS TEACHING FACE-TO-FACE AND DISTANCE LEARNING, AND WE NEED TO ADAPT THE CURRICULA TO ALLOW FOR THAT. TEACHERS NEED TO GET GOOD TRAINING EVEN STARTING THIS AUGUST. FINALLY, WE NEED A STRATEGY, NOT ONE THAT STAYS ON PAPER, BUT A REAL ONE THAT WILL BE IMPLEMENTABLE"

- (educator).

Some of the practitioners called for rethinking the values that the education system is promoting and the need for their overhaul. An NGO representative called for rethinking the learning skills we want to stimulate in pupils:

OUR SYSTEM DOES NOT OFFER OPPORTUNITIES FOR SELF-GUIDED LEARNING, WHICH IS NOW A HURDLE, BECAUSE IN ABSENCE OF GUIDANCE AND LEADING, PUPILS FIND IT HARD TO NAVIGATE THROUGH THE MATERIAL, WHILE PARENTS FIND IT EVEN HARDER TO TAKE ON A TEACHING ROLE.

Another representative from the NGO calls for reforms in the field of teacher education and professional development as a basis for equipping them with the necessary skills and knowledge for the future.

Covid-19 drove home the idea that the educational system deserves special attention:

"BEING IN EDUCATION FOR 30 YEARS, I CAN SAY THAT, UNFORTUNATELY, THE EDUCATIONAL SYSTEM HAS NEVER BEEN HIGH ON THE AGENDA OF ANY GOVERNMENT. FAMILIES ARE NOW FACED WITH THE SHORTCOMINGS OF THE EDUCATION AND HEALTH SYSTEMS. I HOPE THIS SITUATION WILL ENCOURAGE A RETHINKING OF THE PRIORITIES IN THE COUNTRY. BOTH IN TERMS OF INVESTMENT AND IN TERMS OF THE CREATION OF FUNCTIONAL EDUCATION POLICIES"

- (NGO representative).

First steps to integrate digital learning in classrooms are underway, as the MoES, BDE and CVET (financially supported by USAID and UNICEF and with Macedonian Civic Education Center (MCEC) as implementing partner) commenced the work on a strategy for digital learning. According to the state officials, it will encompass an integrated approach towards digital learning, including pedagogical considerations, policies supporting the utilization of IT tools and action plans for different circumstances. In addition, the MoES is working on preparing protocols for the safe return of pupils into school buildings starting this September.



5. CHILDREN FACE HEALTH RISKS

The global Covid-19 trends suggest that children are less likely to be infected than adults and that a significant number of them are asymptomatic (Gudbjartsson et al. 2020). Children who are symptomatic experience milder symptoms than adults: they may show flu-like symptoms such as fever, cough and cold, or may have gastrointestinal symptoms like vomiting and diarrhea. Very few of them would have respiratory difficulties and require intensive care admission (OECD, 2020a). Few children have died from Covid-19, although the early

indications from Western European countries suggest that these deaths could be linked to other preexisting health problems. While it seems that children are more resistant to Covid-19 than adults – primarily due to their more robust immune system (Dong et al. 2020) – their role in the virus transmission remains uncertain (Zimmermann and Curtis, 2020).

This section starts with an overview of the institutional and human capacities of the health system of North Macedonia deployed in the response to the Covid-19's pandemic.

Then, it provides an assessment of the manner in which children have been affected by the pandemic. Administrative data and survey responses by GPs underlie the analysis.

5.1. HEALTH SYSTEM CAPACITY UNDER COVID-19

Healthcare delivery in North Macedonia is dominated by hospital care and lacks a strong primary care system. North Macedonia has an extensive network of hospitals (3.2 per 100,000 people on average), with 4.5 hospital beds per 1,000 inhabitants (WHO, 2019). A major positive characteristic of the healthcare inherited from Yugoslavia has been the good surveillance and control system for infectious diseases (Milevska-Kostova et al. 2017). This characteristic is still considered a robust point of the system, along with the strong prevention and free access to healthcare at the point of delivery.

The Institute of Public Health (IPH) and the Centers of Public Health (CPH) are responsible for the control and monitoring of communicable diseases in the country. The Institute is a top-level professional and scientific institution providing services such as monitoring, research and analysis of the health status of the population

and devising measures for the protection and improvement of the health of the population. The ten regional Centers of Public Health are responsible for providing public health services at a local level in the areas of social medicine, environmental health, epidemiology and microbiology, as well as laboratory services.

The highest level of healthcare related to the treatment of patients with communicable diseases is provided at the tertiary level, at the University Clinic for Infectious Diseases and Febrile Conditions, while there are infectious diseases departments at the secondary level in each of the three public clinical hospitals in Bitola, Stip and Tetovo, and in nine of the general hospitals in Skopje, Veles, Kumanovo, Gostivar, Ohrid, Prilep, Kavadarci, Strumica and Debar.

Epidemiologists are part of the Institute and of the Centers of Public Health. In 2017, there have been 42 epidemiologists or 2.1 per 100,000 population (**Table 13**). According to the average number of epidemiologists, the country is positioned somewhere in the middle, when compared to neighboring countries: Bosnia and Hercegovina 1.5, Serbia 2.1, Montenegro 4.2, Croatia 4.5. Compared to the total number of medical specialists in the country, epidemiologists represent 1.1 per cent. As part of the public health system, 30 epidemiologists work

Table 13: Number of epidemiologists in the public health institutions

Institution	Number
IPH	2
CPH Bitola	3
CPH Veles	3
CPH Kocani	2
CPH Kumanovo	3
CPH Ohrid	3
CPH Prilep	3
CPH Skopje	2
CPH Strumica	6
CPH Tetovo	1
CPH Stip	2
Total	30
Total in the country	42

Table 14: Number of infectious diseases specialists by region

	Norm	Number in 2017
Secondary level		
Pelagonija	5	10
Vardar	3	5
Northeast	4	4
Southwest	5	5
Southeast	4	4
Polog	7	8
East	4	4
Skopje	14	4
Tertiary level		
Skopje	-	28
Total	44	72

Source: Institute of Public Health, Human Resources of the Health Providers in the Republic of North Macedonia (2017) and Ministry of Health, Health Network and Institute of Public Health, Human Resources of the Health Providers in the Republic of North Macedonia

in the Institute and the Centers for Public Health, which is 20.3 per cent of the total number of doctors in these institutions. According to the survey of GPs, there is a shortage of epidemiologists and infectious diseases specialists that is already impinging on the handling of the pandemic.

The total number of infectious diseases specialists in 2017 was 72, or 3.6 per 100.000 population (Table 14). They are part of the secondary and tertiary levels of care. At the secondary level, the Health Network defines a norm of one specialist per 45,000 inhabitants. In all regions

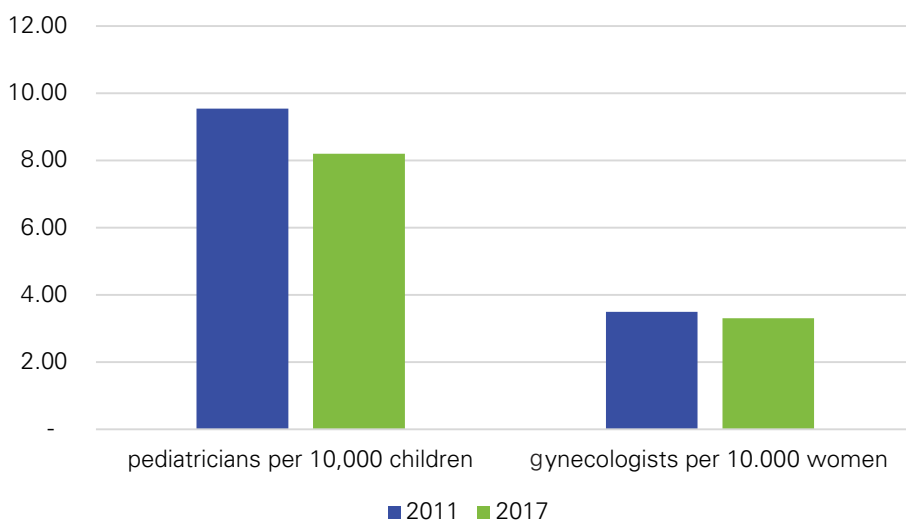
except Skopje, the number of such specialists is above or at the level of the norm. In the capital, however, besides the four specialists in the general hospital, there are 28 more working at the tertiary level, or 5.1 specialists per 100.000 population. While there is no publicly available data on nurses working in the hospital infectious diseases departments, there are 58 nurses working in the Infectious Diseases Clinic.

The country has 1,445 active GPs and family medicine specialists working at the primary care level, financed through the Health Insurance Fund (HIF). There are 0.78 GPs per 1,000 inhabitants

(HIF, 2020), 104 doctors fewer than in the previous year. The average age of the GPs in 2018 was 46.4 years. Part of the primary-level healthcare are pediatric specialists whose number in the country decreased from 9.5 per 10,000 children in 2011 to 8.2 in 2017 (**Figure 17**). Gynecologists, as one of the most deficient specialties in the country, registered a smaller reduction over the same period, from 3.5 per 10,000 women in 2011 to 3.3 in 2017. These reductions may jeopardize the health of pregnant mothers, children and newborns during Covid-19.

Pediatricians from the Children's Clinic were assisting infectious diseases specialists in cases where children were infected with Covid-19, particularly children with other diseases. Usually, such children were treated at the Infectious Disease Clinic where teams were supplemented with a sub-specialist from the Children's Clinic, although the first contact of some parents was with the latter.

Figure 17: Pediatricians per 10,000 children and gynecologists per 10,000 women



Source: Institute of Public Health, Human Resources of the Health Providers in the Republic of Macedonia 2011 and 2017; State Statistical Office, population estimates for 2011 and 2017

"WE ESTABLISHED A TEMPORARY OUTPATIENT UNIT TO SEPARATE REGULAR PATIENTS FROM COVID-19-SUSPECT CHILDREN, AND SUCH PHYSICAL CAPACITY IS NOT A PROBLEM. THE CHALLENGE IS QUALIFIED PERSONNEL, BECAUSE NOT ALL PEDIATRICIANS ARE EQUIPPED TO CARE FOR CHILDREN IN NEED OF INTENSIVE CARE. AT THE CLINIC, WE HAVE ONLY 9 INTENSIVE CARE PEDIATRICIANS, AND YOU CANNOT TRAIN A PEDIATRICIAN TO WORK IN ICU IN A WEEK OR A MONTH,"

- explains a pediatrician.

Building on the linkages among GPs, COVID-19 diagnostic facilities and higher level of care providers, *MojTermin* – the Macedonian electronic health-record system – has been fully utilized to recruit GPs in the process of detection and, partly, in the treatment of Covid-19 infected patients. Namely, with increasing numbers of suspects, detection shifted to GPs. While epidemiologists focused on testing the clusters and the contacts of the diagnosed patients, GPs have been assigned the prime contact for the population with symptoms. Based on an algorithm of questions, GPs used *MojTermin* to schedule testing. The surveyed GPs expressed a high level of support (70 per cent) for this measure agreeing that their medical knowledge and experience play an important role in the evaluation of Covid-19 symptoms.

The second important role of GPs was in the treatment of the diagnosed patients. While severe and risky patients were treated in the hospitals and the Clinic, the approach of the health authorities prescribed that mild cases be treated in their homes under surveillance of their GPs. The GPs were contacting the diagnosed patients and reported regularly in the *MojTermin* system. Infectious diseases specialists also used *MojTermin* to monitor GP's reports for each patient and gave feedback through the system on prescribed treatment or the need for hospitalization. The involvement of GPs in the treatment of mild cases was supported by 74 per cent of surveyed doctors.

GPs gave an average score of 3.31 (out of 5) for the infrastructure and the physical capacity of the system in general, and a slightly lower score of 3.09 for the equipment in the health sector. They were also asked to score capacities of the primary healthcare. They gave a lower score to capacities at the level they work in compared to the ones they gave to the health system to handle communicable diseases. The average score on human resources at the primary level has been 2.95 and even lower on disposable medical supplies and basic equipment, 2.09. A pediatric specialist recognizes potential bottlenecks:

"HAD CHILDREN BEEN HIT BY COVID-19 AS THE ELDERLY WERE, IT WOULD HAVE BEEN DIFFICULT TO RESPOND EFFECTIVELY. THE ONLY ICU FOR CHILDREN IS AT THE CHILDREN'S CLINIC WITH 20 BEDS, WHICH PRIMARILY CARES FOR PRETERM NEWBORNS; IF IT NEEDS TO CARE FOR SEVERE COVID-19 CASES, THEN IT WOULD BE TOUGH TO RESPOND."

GPs have identified the following ways of improving the response of the health system to the pandemic:

- More efficient communication and coordination among all healthcare levels, for more efficient treatment of Covid-19 patients;
- Designated health centers for diagnostics and treatment of non-Covid-19 patients;
- Increase the number of home visits by specialized health teams to monitor Covid-19 patients so as to early identify severe cases;
- More funds are needed for the purchase of personal protective equipment for the health staff;
- More efficient public procurement by the Ministry of health for personal protective equipment for the whole health system.

GPs also highlighted the need for funded specializations in pediatrics, as a longer-term response to infectious outbreaks like Covid-19 and, even more importantly, to diseases that affect children in a more perilous manner.

5.2. THE IMPACT OF COVID-19 ON CHILDREN'S HEALTH

5.2.1. Healthcare service delivery

Health systems are being confronted with the rapidly increasing demand generated by the Covid-19 outbreak. At the same time, there is increasing worrying evidence of delayed or forgone care that highlights indirect health effects of the pandemic. Globally, concerns have been voiced from several stakeholders over the implications of delayed care, while many countries saw a significant drop in emergency cases, such as for heart attacks or strokes. Maintaining the trust of the population in the capacity of the health system to safely meet essential needs and to control infection risk in health facilities is key to ensuring appropriate care-seeking behavior and adherence to public health advice. Establishing effective patient flow (including screening, triage, and targeted referral of Covid-19 and other cases) is essential at all levels (WHO, 2020a). Global studies already find that a 15 per cent reduction in life-saving essential health interventions for 6 months in low- and middle-income countries, which correlates with a 9.8 per cent increase in below-5 mortality and an 8.3 per cent increase in maternal mortality (Robertson et al. 2020).

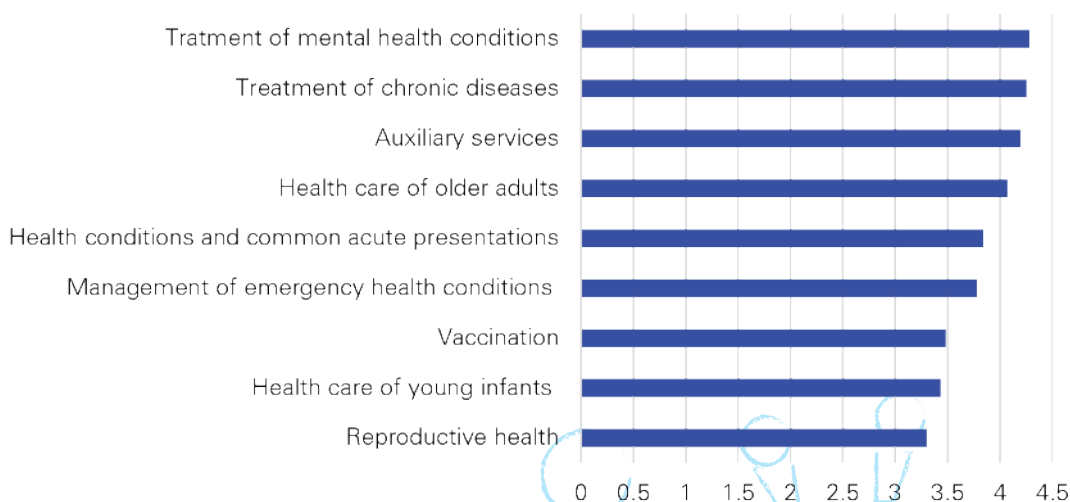
While children have not been the prime victim of the infection, the substantial decrease in the use of pediatric care might reflect scarcity of available resources due to pandemic-related redistribution, or reticence on the part of parents and caregivers to risk exposure to Covid-19. Children with special needs are potentially at higher risk of severe illness from not accessing healthcare (Lazzerini et al. 2020). The research on the effects of prior pandemic and disasters on children clearly indicates that there will be both immediate and long-term adverse consequences for many children, with particular risks faced during early childhood when brain architecture is still rapidly developing and highly sensitive to environmental adversity (Shonkoff et al. 2012). Estimates predict a rise in maternal and child mortality in low- and middle-income countries as health services for non-Covid-19 related issues become scarce as well as an increased risk of devastating physical, socioemotional, and cognitive consequences over the entire course of children's lives (Yoshikawa et al. 2020).

The government of North Macedonia pursued adjustments in the healthcare provision amid Covid-19. GPs and specialists could be visited only in emergency, while some healthcare providers, like dentists, were forced to close offices,

and planned health services in hospitals were postponed. Furthermore, regular checkups for chronic disease patients were canceled. Changes in referrals and prescriptions were enacted to minimize contacts while ensuring continuation of essential healthcare. As the necessary postponing of healthcare during pandemic can pose a risk to the overall health of the population, GPs tried to swap the usual

regime of work by phone. GPs judged that the treatment of mental health and of chronic diseases has been most affected by the Covid-19 crisis in North Macedonia, with average scores of 4.28 and 4.25 on the GP survey, respectively. Reproductive health (3.3) and healthcare of young infants (3.43) have been judged as least affected (**Figure 18**).

Figure 18: GPs' evaluation of the effect of COVID-19 on essential health services



Source: GPs Survey

The total value of the delivered healthcare services declined by 34 per cent over March and April 2020, compared to the same period a year ago. The decline has been similar in inpatient and outpatient care (**Figure 19**, left). A significantly higher contraction is observed in the public sector (38 per cent) (**Figure 19**, middle). For children (inpatient services only), the decline of 33 per cent has been smaller than the reduction in the services to the general population of 39 per cent (Figure 19, right), implying that in terms of health services provision, children have not been exposed to Covid-19 more than the general population. A pediatric specialist corroborates this:

"SINCE THE BEGINNING, THE KOZLE INSTITUTE WAS DESIGNATED TO ACCEPT CHILDREN WITH FEBRILE CONDITIONS, WHILE WE [CHILDREN'S CLINIC, N. B.] CONTINUED WITH THE REGULAR ACTIVITIES, FOR EXAMPLE INTENSIVE CARE AND HEMATO-ONCOLOGICAL UNIT WORKED ACCORDINGLY, SO THAT THE SITUATION DID NOT CAUSE A SIGNIFICANT CHANGE IN SERVICE DELIVERY FOR OTHER PATIENTS."

Hence, the decline in service delivery is primarily related to reduced demand and postponing of some regular diagnostics and control, where conditions permitted.

"DIAGNOSTICS OF CHRONIC DISEASES HAS SUFFERED MOST, BUT NOT THE TREATMENT. PARENTS DO NOT COME TO SEE A DOCTOR BECAUSE THEY FEAR,"

- concludes the pediatric specialist.

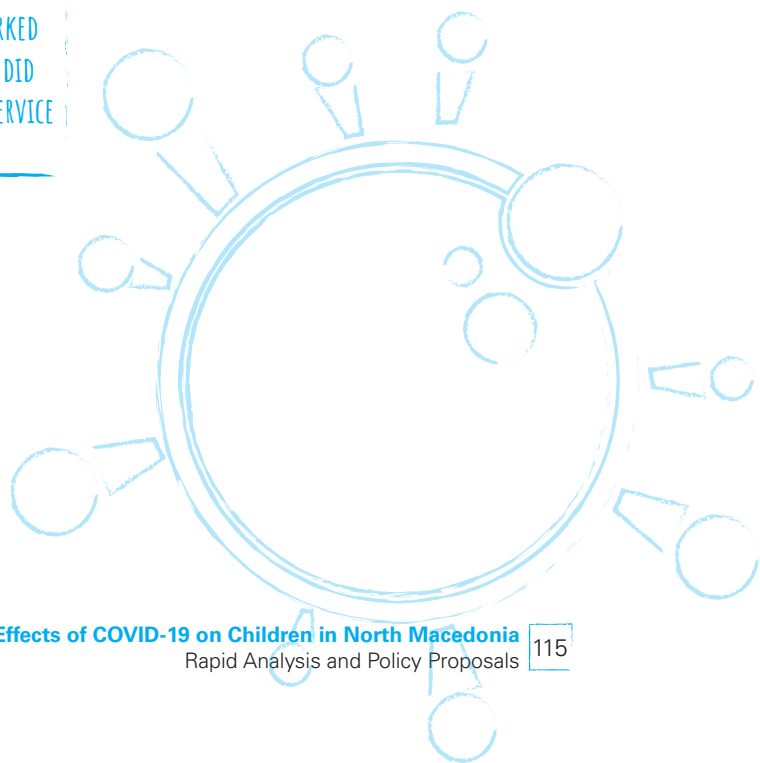


Figure 19: Reduction of the amount of services by type of healthcare, provider's ownership and patients' age



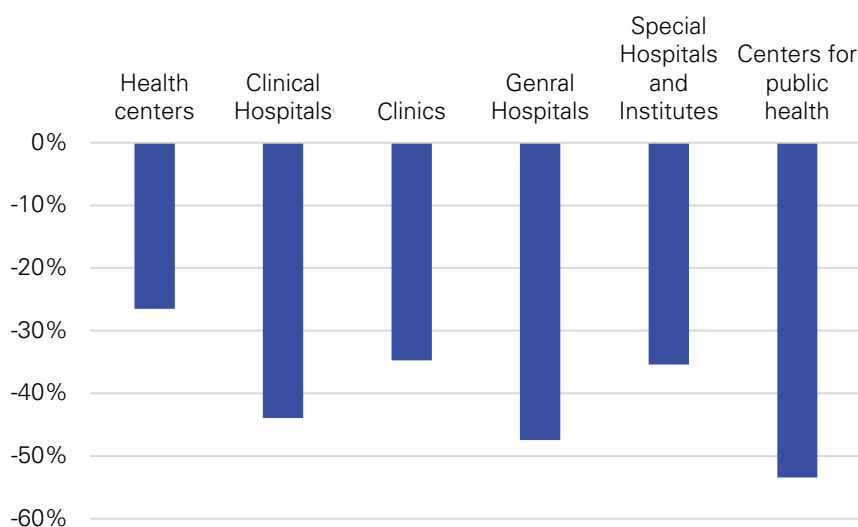
Source: Health Insurance Fund

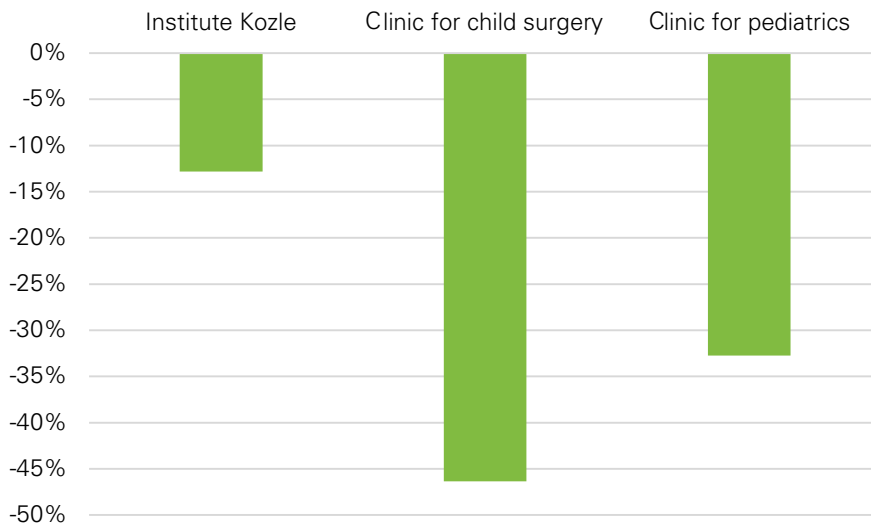
Such contractions have been the highest in the Centers for Public Health (53 per cent) which have the smallest share in the structure of the total health services in the public sector while being at the forefront of the pandemic response (**Figure 20**, blue). General and Clinical hospitals faced decreases of 47 per cent and 44 per cent, respectively, followed by the University Clinics and Special Hospitals, while the smallest drop has been observed in the Health Centers. Children-wise, the University Clinic for Child Surgery noted the largest decline of 46 per cent, while the Kozle Institute, where respiratory diseases in children are treated, noted the smallest drop (13 per cent) (**Figure 20**, green), implying that service delivery there has been maintained despite the Covid-19 risk.

As for the geographic distribution of health services contraction, the largest reduction in the 10 most common groups of services is observed in the Polog region (46 per cent), while the smallest in the Vardar region (28 per cent). Skopje, as the region with the largest share of 60 percent of the delivered healthcare services in the country, experienced a contraction of 31 per cent.

Disaggregated by disease type, a contraction in the number of inpatient services is notable in all main diagnostic categories (MDCs) (**Figure 21**). In the most frequent health services for circulatory and respiratory systems, the drops amount to 40% and 46% respectively. Healthcare services related to pregnancy, childbirth and puerperium recorded a 25 per

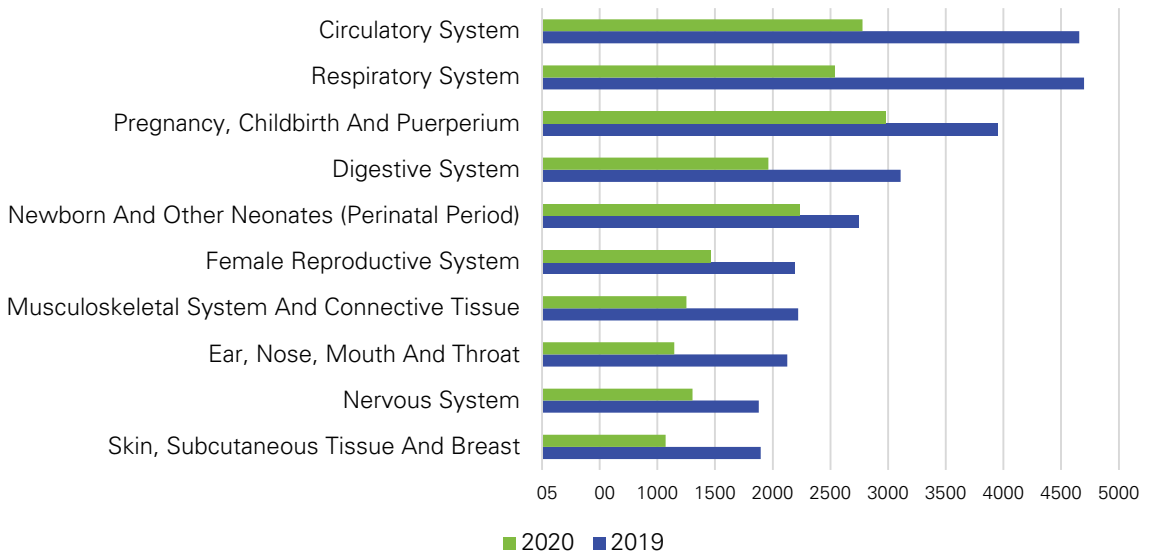
Figure 20: Reduction by type of general and children’s public healthcare provider





Source: Health Insurance Fund

Figure 21: Number of services in the 10 most common MDCs



Source: Health Insurance Fund

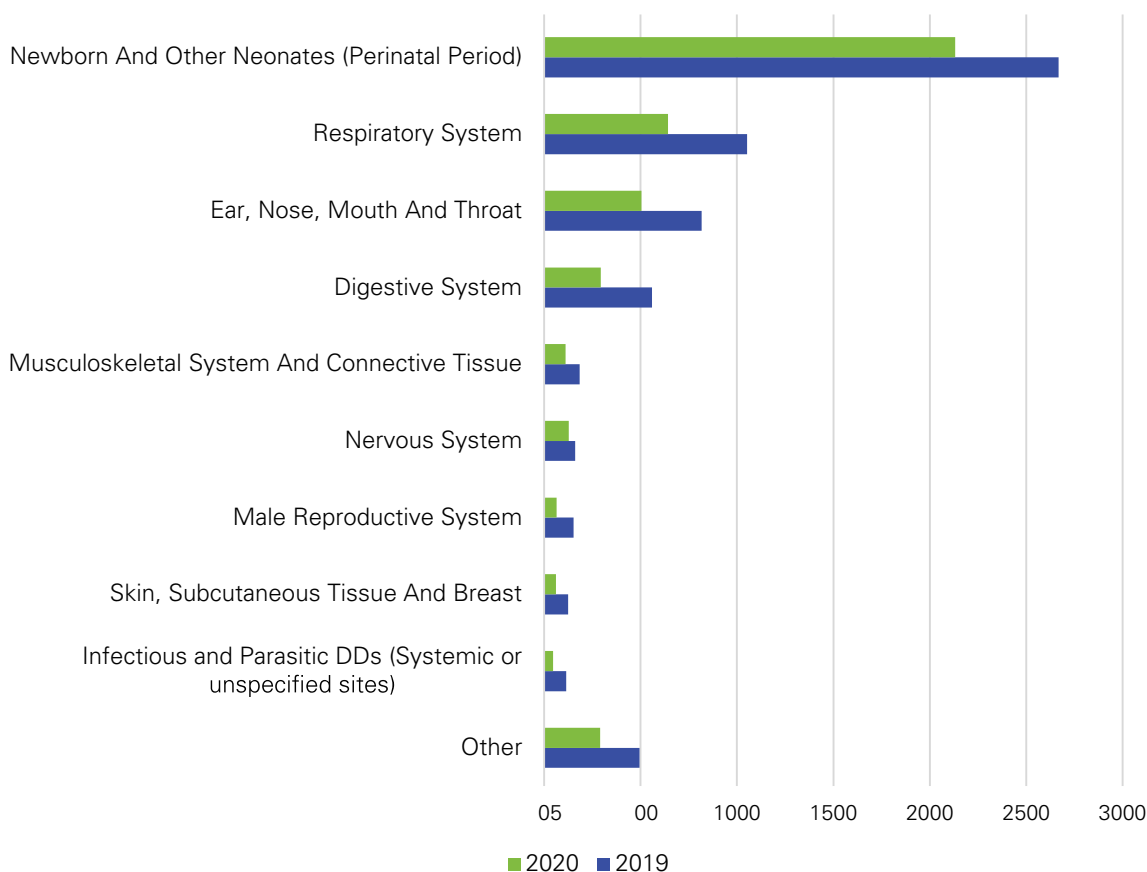
cent contraction, while in the newborns and other neonates (perinatal period) category, the reduction is 19 per cent. Healthcare services in diseases and disorders of female reproductive system category decreased by 33 per cent while in mental diseases and disorders category – by 46 per cent.

Disaggregated by type of inpatient services provided to children (Figure 22), services in the most

common group of respiratory diseases (after newborn and other neonates) experienced a reduction of 39 per cent, in diseases related to ear, nose, mouth and throat – 38 percent, while digestive system services fell by 48 per cent.

The approach of the Ministry of Health to enable secondary and tertiary level institutions to perform services only for Covid-19 patients and urgent

Figure 22: Number of children’s inpatient services by MDC

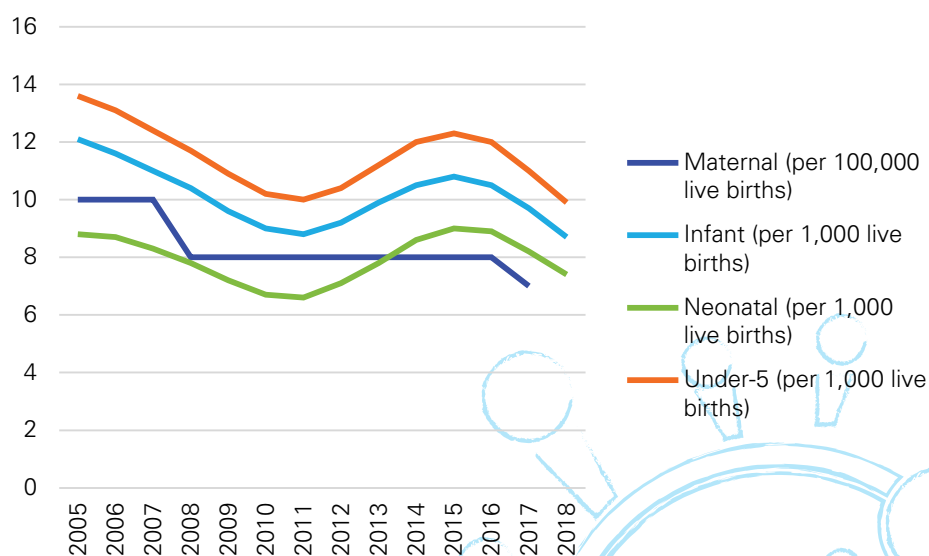


Source: Health Insurance Fund

services for non-Covid-19 ones, might have implications for the health of the whole population (including children), due to lack of diagnoses and treatment of other diseases, particularly chronic ones (cancer, cardiovascular, diabetes), postponement of screenings that may result in late disease detection and leaving citizens to handle their health problems themselves in their homes with only the GPs at their disposal. The pandemic may adversely impact mental health of children, while lack of physical activity may

increase obesity levels, especially among the children (survey of the GPs). As critical resources suffer under Covid-19, key child-related health indicators, like maternal and child mortality and morbidity may increase and revert recent gains (**Figure 23**). The preliminary data of the State Statistical Office (2020) corroborate these concerns: infant deaths increased from 5.8 (March 2019) and 4.5 (April 2019) per 1,000 live births to 10.5 and 11.3 in same months of 2020, respectively.

Figure 23: Mortality rates of mothers and children



Source: World Development Indicators.

5.2.2. Vaccination

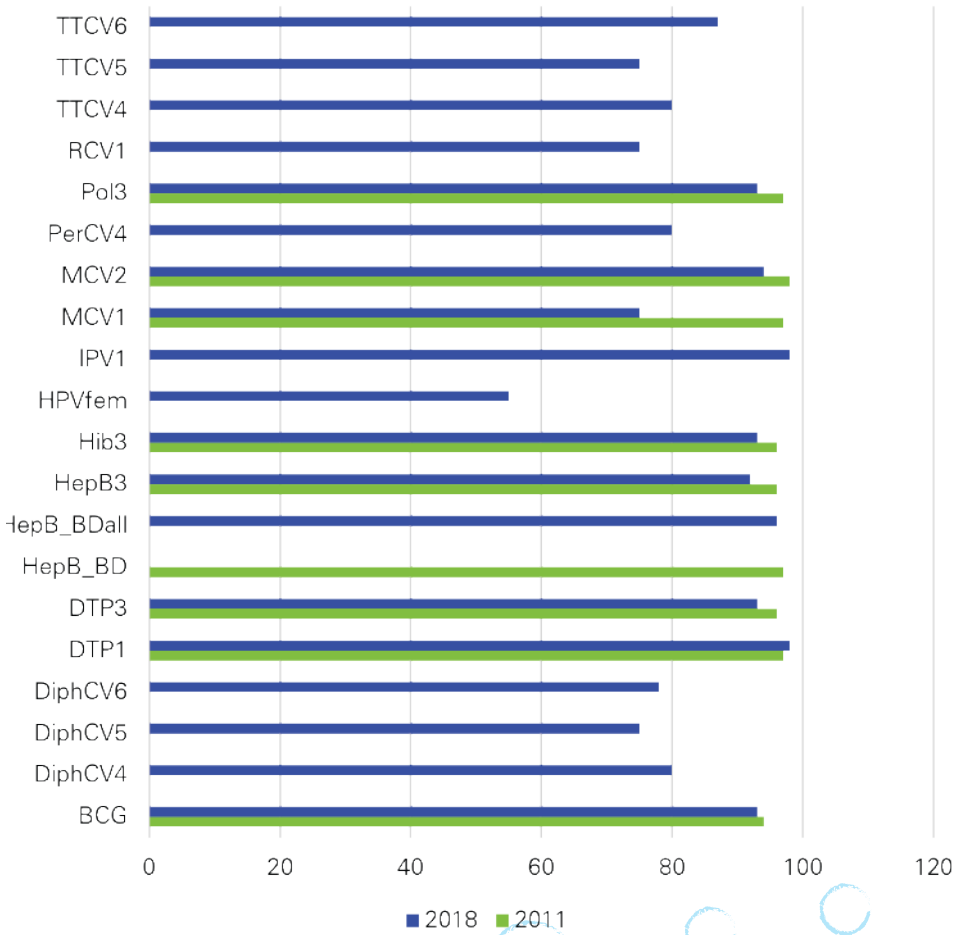
Immunization is an essential healthcare service which may be affected by the pandemic. According to the WHO, a disruption of immunization services, even for brief periods, may result in increased numbers of susceptible individuals and raise the likelihood of outbreak-prone vaccine preventable diseases (VPDs) such as measles (WHO, 2020b). The London School of Hygiene and Tropical Medicine weighed up the health benefits of continued routine infant immunization delivery against the risk of Covid-19 infections. The extent of the problem depends on how long vaccinations get pushed back for and whether children who have missed a dose or two can get on their doctors' calendars before returning to school or daycare. The American Academy of Pediatrics suggests that immunizing the youngest children should be the top priority during Covid-19.

Preventive services, such as immunization and preventive medical check-ups, have traditionally a high and increasing coverage rate in North Macedonia (**Figure 24**). Their delivery is universal to all children and adolescents, regardless of their health insurance status. The country has added mandatory vaccination against hepatitis B virus for all babies born after November 2004 and against

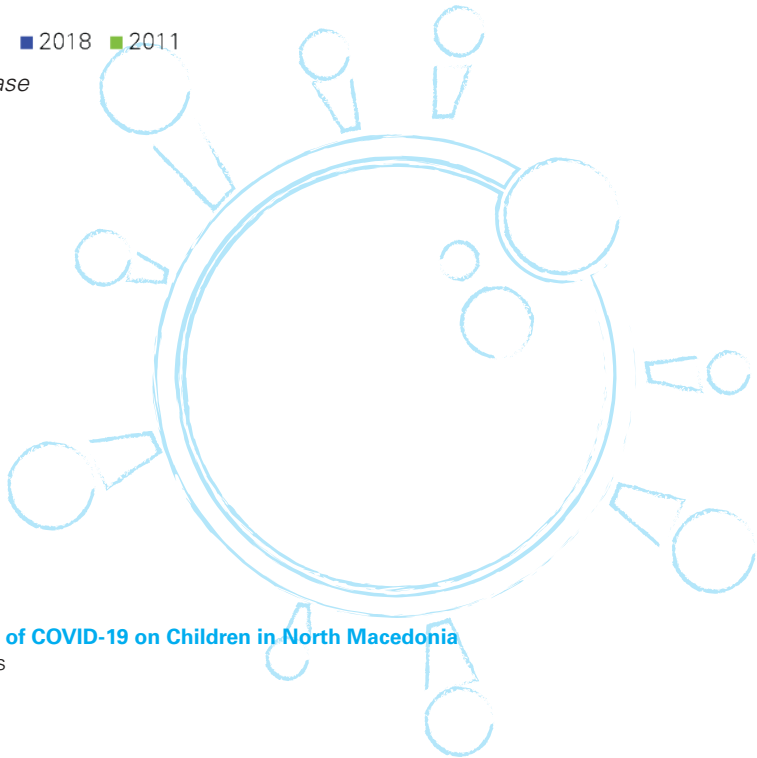
human papillomavirus for all girls aged 9–12 years since 2010 (Milevska Kostova et al. 2017), as well as Rota and Pneumococcal vaccines for all babies starting July 2019.

After Covid-19 outbreak, the Government of North Macedonia suggested that vaccination, being one of the crucial healthcare activities pertinent to children, should not be interrupted and should continue as per the immunization calendar. This recommendation has been particularly emphasized for newborns and preschool children. An interview with a vaccination team confirmed that they were continuously performing the vaccination and there were no deviations from the immunization calendar. On the other hand, the opinion of GPs is mixed: half of them expected a short-term decline in immunization rates due to the lockdowns and distancing, while 36 per cent hoped that the Covid-19 circumstances would result in an increase of the vaccination-related awareness and hence improve immunization rates in the future.

Figure 24: Immunization rates, by type



Source: WHO Global Health Database



5.2.3. Mental health of children

Mental health of children is becoming an important challenge of the health systems worldwide. According to a WHO (2020c) report, adolescent mental well-being has been on a decline even before Covid-19 hit. Confinement, physical distancing and school closure during the pandemic may increase children's and parents' anxiety. Studies of the psychological impact of the quarantine reported negative effects including post-traumatic stress symptoms, confusion, and anger (Brooks et al. 2020). Stressors have been quite visible, including long-lasting quarantine, infection fears, frustration, boredom, inadequate supplies, inadequate information, financial loss, and stigma. Yet, evidence on the impact of Covid-19 on children's mental health is scant at this stage (Pew Research Center, 2020). While distance learning may help mitigate some of the potentially negative effects of the isolation, negative effects may be aggravated among children from low socio-economic background, as for them the crisis intensifies financial risks and social insecurity, and among children with disabilities.

All interviewees highlighted that the lack of physical presence at school, which means lack of contact with teachers, peers and professional support staff, might severely impact mental

health of pupils. In addition, some pupils will miss out the usual celebrations as they finish one stage of schooling and enter a new one, which might also have an impact on how they feel. In such a situation certain problems and issues might go unnoticed and create even more problems, like for example bullying:

"WE MAY HAVE CYBER-BULLYING NOW, WHICH IS EVEN MORE FRIGHTENING THAN PHYSICAL BULLYING; AT SCHOOL, THEY COULD COME TO ME AND NOW THAT IS GONE" (EDUCATOR). A PAEDIATRIC SPECIALIST CONCURS: "SURELY, SCHOOL-AGE CHILDREN, ESPECIALLY THE HYPERACTIVE ONES AND THOSE WITH SPECIAL NEEDS, FACE ANXIETY AND CONSEQUENCES FOR MENTAL HEALTH, WHILE CHILDREN IN PRE-SCHOOL AGE ARE CALMER, BECAUSE THEY ARE AT HOME WITH THEIR PARENT".

A number of educators and NGO representatives became involved in providing support to children given the understanding that mental health of pupils, parents and teachers will be severely impacted and will be a next challenge to deal with.

At the institutional level, psychological-support phone-lines were provided by health authorities, in cooperation with UNICEF and the University Psychiatric Clinic for children, teenagers and children with disabilities. This includes support for children when they show signs of stress or distress, advising ways to maintain family routines and social contact with peers.

“PEOPLE FEAR STIGMATIZATION, IN GENERAL, LET ALONE TALKING ABOUT PSYCHOLOGICAL ISSUES OVER THE PHONE. INFORMATION AND COMMUNICATION ON THESE THEMES MAY HELP OVER THE MEDIUM TERM”,

explains a pediatric specialist. GPs consider that the mental health treatment will be most affected among essential health services during Covid-19, with the highest average score of 4.28 out of 5. 66% of GPs reported a deterioration of patients’ mental health.

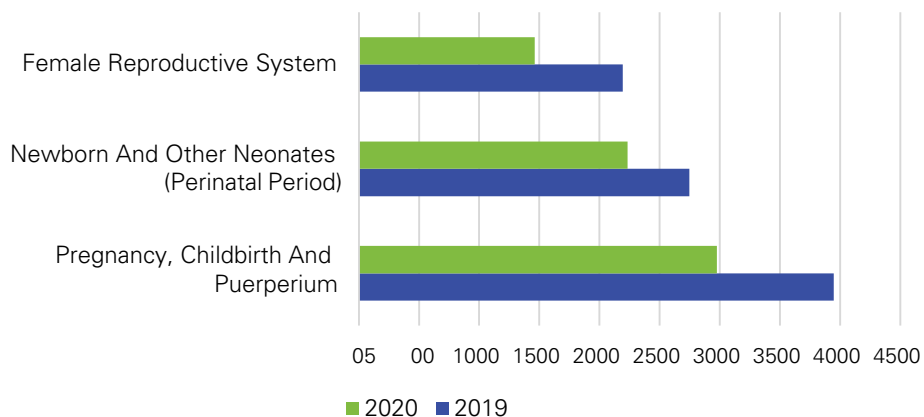
5.2.4. Mothers and newborns

Pregnant women may be more susceptible to viral respiratory infections, morbidity or mortality, compared to the general population due to their immune and physiological changes (OECD, 2020a). Yet, the available data from other countries do not lend support to the hypothesis of increased prevalence of Covid-19 among pregnant women. On the other hand, McCarthy (2020) finds preterm births of mothers who tested positive for Covid-19 during pregnancy, although causality has not been confirmed. Pregnant women’s and mothers’ health may play an important role for the child’s wellbeing in the long run. Studies of individuals conceived and in utero during pandemics, natural disasters and famine (Torche, 2011) revealed the potential for life-long negative consequences of such shocks, such as reduced educational

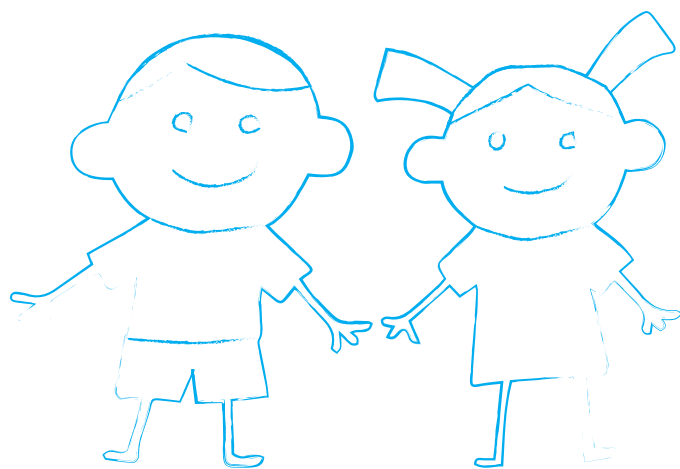
attainment and earnings, and increased likelihood of obesity, non-communicable diseases and mental health problems.

Pregnant women’s and mother’s health have been among the priorities of the health system in North Macedonia. Unlike GPs’ services, gynecology services at the primary level, particularly to pregnant women, continued to be delivered in person during the pandemic. Moreover, there has been a reorganization at the secondary and tertiary level, with University Gynecology and Obstetrics Clinic focusing more on suspected Covid-19 cases and on the complicated cases, while all other deliveries have been allocated to the special gynecology and obstetrics hospital Cair in Skopje. Based on the information obtained from the Gynecology Clinic, none of the newborns during the Covid-19 period have tested positive for the virus. According to a statement by the Institute for Public Health, 61 pregnant women have tested positive to Covid-19 as of end-June 2020, out of which 15 were hospitalized, and there were two fatalities. Under such circumstances, healthcare services for mothers and newborns reduced by 25 per cent in comparison with the same period last year (Figure 25), partly driven by demographic trends and the increasing incidence of deliveries in the private hospitals.

Figure 25: Number of services for mothers and newborns



Source: Health Insurance Fund



BOX 3: REGIONAL AND ETHNIC DISPARITIES IN ACCESS TO GYNECOLOGICAL SERVICES EXACERBATE DURING COVID-19

Due to infection of medical staff with Covid-19, a reputable private hospital for maternal and child health in Bitola closed in the middle of the pandemic for 15 days. Health authorities arranged a transfer of all patients with urgent conditions and interventions that could not be postponed (pregnancy appointments, deliveries, etc.) to other hospitals in the Pelagonija region or in the capital. The case illustrates the concentration of gynecologists at one institution and the shortage of gynecologists in the public healthcare in the region. The unavailability of 7 out of the total of 17 gynecologists at the secondary level in the region exposed the regional vulnerability in the access to gynecological and obstetric services.

The case of Shuto Orizari highlights ethnic disparities in access to gynecological care. This well-known part of Skopje inhabited by Roma has lacked a primary gynecologist for many years. While the problem was briefly solved by offering a concession for a private gynecology service in the area, the doctor “escaped” to another part of the city in January 2020²⁶ without providing reasons for the move. Thus, again, the area inhabited by about 40,000 Roma was left without a gynecologist, deepening the vulnerability the local population has been already facing with respect to prenatal and maternal care and the risks pertinent to baby delivery.

²⁶A Alsat-m.tv, [„Шутока остана без гинеколог, побегна во Ченто“](#) (24 Јануари 2020), accessed 19 June 2020.



5.3. USE OF ICT IN THE HEALTH SYSTEM DURING COVID-19

During the pandemic, countries tried to use different technologies to minimize physical contacts among people and particularly within the healthcare systems. Overall, there are three principal areas where digital health tools are being used in response to Covid-19: communications; monitoring and surveillance; and supporting provision of health services. The usage of such tools is still evolving, as countries make more use of existing tools (for telehealth, for example) or develop new ones (such as apps to support contact tracing).

Some countries have either started or expanded the use of telemedicine, of remote access to health services without in-person contact. In Croatia, Luxembourg, Romania and Spain, phone-based consultations were used for general or specific populations or patient groups. In the United Kingdom a telephone triage system was introduced to facilitate new cancer referrals and avoid unnecessary hospital attendance. Video-conferencing and other online platforms have also been frequently used.

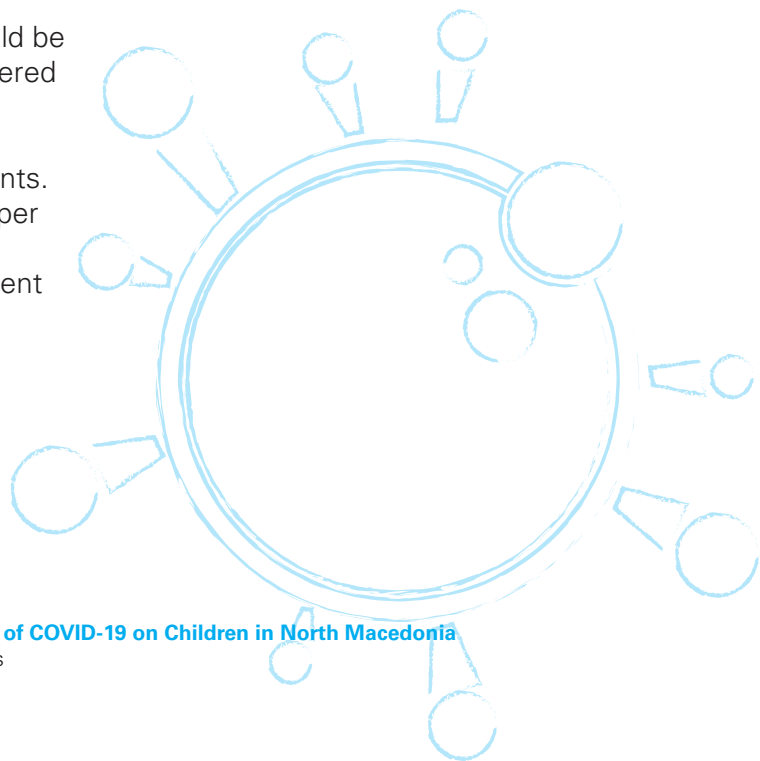
Countries have also increased efforts to provide care at home (by the health system or civil society and volunteers). With the movement restrictions and on-site services, many countries

introduced or expanded initiatives to provide care at home, particularly for vulnerable groups (Croatia, Cyprus).

During Covid-19 pandemic, North Macedonia opted for utilizing digital health technologies whenever possible. It made an efficient use of *Moj Termin* national health-record system in response to Covid-19. The *Moj Termin* team in the Ministry of Health (MoH) developed a new module for prevention and monitoring of infected patients, consisting of a Covid-19 screening submodule and a submodule for monitoring home treatment of infected patients. The system helped protect physicians and patients in need of healthcare against the virus, and made it easier to record and analyze the data on infected patients. As mentioned previously, telemedicine was broadly used by the primary level GPs, but also by some of the specialists. The country also fully utilized the existing IT system in the health sector for prioritizing and scheduling Covid-19 testing, and for surveillance and handling of mild cases. While the Government engaged in the development of StopKorona mobile application to support contacts tracking and promoted the use of the app by the population, the number of downloads suggests a modest uptake.

Digital health tools may have the potential to support transition to less restrictive measures, but challenges remain. In terms of responding to the pandemic, two key questions are whether digital health tools would add value in practice, and whether the public would accept them. Some research suggests that an app can be effective, but only if 80% of smartphone owners, or 56% of the population overall, use it. Initial surveys suggest that around three-quarters of the population in countries such as the UK, France, Italy and Germany would be willing to do so, though with the people in some countries noticeable more willing than in others.

The opinion of Macedonian GPs on the use of telemedicine beyond Covid-19 was divided. Almost 44 per cent thought that post-Covid-19 telemedicine should continue, and daily hours for telephone consultations should be introduced, 14 per cent answered that they had used phones and computers in the past to communicate with their patients. Yet, a fairly large group of 42 per cent of GPs believed that the doctor must examine the patient in person.





6. POLICY RESPONSES AND RECOMMENDATIONS

Even though children are not in the eye of the pandemic storm from the health perspective, they do not stand on equal footing when it comes to coping with the socio-economic effects of Covid-19. The pandemic has exacerbated vulnerabilities related to parents'/household resources and the quality of the home environment, which create a persistent gap in opportunities between advantaged and disadvantaged children (OECD, 2019). However, the immediate policy focus during the pandemic has to be on children's health and psychological wellbeing, and educational support, with

special reference to the children left further behind. The pandemic has increased the burden of risks carried by children living in low-income households, children whose parents have a lower level of education, who live in multi-children households and whose home environment lacks access to services, including the internet, by significantly disrupting the learning of these children during school closure. A successful policy response will prevent falling into destitute poverty and further aggravation of inequalities, which is necessary for intergenerational social mobility.

6.1. SUPPORTING CHILDREN AND PARENTS IN NEED

The lockdown resulted in a disruption of the provision of services to children and families, and deterioration of the quality of care provided. Rights of children with disabilities, fostered children, children victims of family violence as users of day-care centers, foster families, shelters for family violence, users of personal assistance, etc. need to be systematically protected when restrictions on physical contact are introduced. Systematization of standards of care during periods of no/limited physical contacts/attendance of care centers should primarily benefit the children and their families, indicating necessary elements for maintaining the quality of care provided. These standards need to be unified at the central level and synchronized among different social service providers in order to prevent gaps in standards of care across different social services for children.

Recommendation:
Adopt a Protocol for Social Service Provision during restrictions on physical contact/movement.

Proof of adoption of the standards of such a protocol should be

compulsory for all social service providers who apply or reapply for license for social service provision from MLSP.

Provision of support services from the CSW to specific groups of children, such as children of divorced parents, fostered children, street children/children on the street and other whose rights have been challenged during the lock down, need to be adequately addressed in the next phases of the pandemic. MLSP should coordinate the social service provision in times of crises between different levels of governance as well as among different social service providers (private, NGOs, donors, etc.). A special public body should be established to devise standards for social work provision during crises. MLSP should also mandate a compulsory training in digital technologies for all SWC professionals, as well as for social care providers.

Recommendation:
Institute a Coordination Body for Immediate Social Work Response during crisis, with representatives of MLSP, CSW, Municipalities, NGOs and private care providers.

We have estimated that Covid-19 is likely to have a strong negative impact on the economy that will

result in poverty hikes, particularly among children. To mitigate household income effects, the Government of North Macedonia undertook specific measures to support struggling companies; to limit the loss of income of different categories of individuals (employed, unemployed, recipients of GMA), who experienced job loss, reduced working hours or overall reduction of any income; and to extend paid sick leave to a group of workers with care responsibilities. As we have shown (see particularly Table 7), these actions proved critical in curtailing a more intense increase in child poverty, as parental employment remains the most effective protection against poverty.

The measures to support job retention – most notably the measure for subsidizing salaries of up to MKD14,500 for the months of April to June of 2020 – have been well accepted and their design can be deemed appropriate. Although, as has been argued in Section 2, their effect is limited and unintentionally pro-children, such measures are crucial for maintaining falling incomes of households below the minimum acceptable level to support livelihoods, hence, indirectly highly beneficial for mitigating child poverty. Such measures may be complemented with provisions for flexible working arrangements

and teleworking. Teleworking, however, cannot be considered an option for a large part of the Macedonian economy, particularly in traditional sectors, like textiles and agriculture, which employ a dominant part of the labor force. Teleworking and flexible working arrangements may have their own perils for parents of young children and single parents, who may face care needs during the usual working hours, affecting productivity and employers' satisfaction. However, the pandemic rightly puts the issue of teleworking and flexible working time higher on the agenda, at the time when the drafting of the new Labor Code should resume in North Macedonia.

Recommendation:
In finalizing the new Labor Code, (re) consider the options for teleworking and flexible working arrangements to also suit situation like the one inflicted by the pandemic.

The Government of North Macedonia extended access to a leave paid by the employer for parents of children up to the age of 10 who were left without care due to pre-school or school facilities closure. Such measure is projected to last as long as the state of emergency is in force, but its burden may increase if

pre-school facilities do not reopen with the termination of the state of emergency (which is not the case with schools, as they would have anyway closed on 10 June, the end of the school year). It also reopens the question of who will bear the cost for the prolonged parental leave, particularly given that the current regulation puts the burden on the employer for up to 30 days of leave and on the government after that. It is advised that if current parental care leaves are extended beyond the state of emergency, the government steps in and takes over the financial burden from employers. The issue will return on the agenda if the country faces a second wave of pandemic in the autumn inflicting further school closure.

Recommendation:
Consider designing a prospective measure which will either bear (part of) the cost of paid parental care leave due to Covid-19; or extend a subsidy scheme for companies who will replace the worker during his/her paid leave; or physically adapt pre-school and school facilities (1st-4th grade) to reopen in September even if overall health

risks are not deemed sufficiently curbed at that time.

As indicated in Section 3.1, children from single parent households and other vulnerable households are eligible for reduced fees or free access to kindergartens, including free meals. Also, the meals in primary schools for children of GMA beneficiaries are provided in-kind by the municipality. School closure during the pandemic has disrupted the provision of free meals and put these children and households at a greater risk of food poverty.

Recommendation:
Maintain free school meal entitlement for poor children during periods of prolonged school closures.

Such stipulation should be reflected in the respective laws (i.e. Law on Social Protection, Law on Child Protection, Law on Primary Education), and operationalized by the municipalities and schools. The entitlement must comprise long-term systematic policy, rather than project-type support or humanitarian assistance during the crisis. Experiences worldwide show different strategies in

this respect. “Grab-n-Go” meal sites, meal deliveries to school bus stops or homes, public–private partnership in rural areas delivering shelf-stable food packages, are some of the arrangements introduced for the low-income children during Covid-19 in the US (Dunn et al. 2020), while in the UK, food vouchers of £15 per week have been disbursed by the schools to families who were eligible for free school meals.

6.2. STRENGTHENING EFFORTS TO COMBAT CHILD POVERTY

Notwithstanding the immense vulnerabilities and challenges caused by the Covid-19 pandemic, the crisis also opened opportunities for discussing mechanisms for more responsive social and child protection support during times of increased and prolonged social and economic risks. The social services reform undertaken in North Macedonia in 2019 significantly improved the preparedness of the social and child protection system. It opened the child allowance to more vulnerable categories, broadened the support by introducing educational allowance and instituted a more equal treatment of different households in need (Gerovska-Mitev and Carraro, 2019). Yet, the crisis showed that more households with children

require support, especially when education facilities remain closed.

In response to the crisis, the Government of North Macedonia relaxed the criteria for obtaining guaranteed minimum assistance (GMA), which implicitly made GMA accessible to households with some informal income receipts. Waived conditionalities, simplified administrative requirements, diversified methods of communication with the clients, should become a new norm, and continue after the crisis. The underlying logic of the social and child protection measures in North Macedonia has been avoiding fraud, misuse and dependency among clients for a long time. The current crisis provides an opportunity to substitute such logic with risk prevention, risk protection and a more universal coverage of vulnerable children and households – that have driven the government’s response the Covid-19 crisis. While we have demonstrated in Section 3.3. that this policy response has been beneficial for children, and particularly for those living in the poorest families, it did not explicitly target children. Namely, no specific changes aiming at expanding children’s access to cash have been made, including no relaxation of the income and property criteria pertinent to child allowances. We recommend a move in this direction.

Recommendation:
Introduce a second child allowance threshold for households with three and more children and align any condition related to the possession of fixed and movable property, and for duration of the measure, with the March 2020 amendments/changes in the Social Protection Law.

We propose the following second threshold (intervention in Article 31 of the Child Protection Law):

- MKD1,000 for one child of school age; MKD1,600 for two children; MKD2,000 for

three or more children;

- MKD1,200 for one child of pre-school age; MKD1,900 for two children; MKD2,400 for three or more children;

- MKD1,600 for two children of pre-school age; MKD2,000 for three or more children of pre-school age.

As Covid-19's effect has been more severe for girls, a special provision may be introduced for girls.



Table 15: Planned and additional annual spending on child allowance

	Planned spending for 2019	Simulated spending based on 2020 rules	Simulated spending with relaxed criteria	Additional funds needed due to Covid-19
Child allowance (million MKD)	872.5	702	931	228.9

Source: Authors' calculations and MLSP.

Table 16: Potential additional annual spending on amended to child allowance provision, by number of children in the household

Number of children in the household	Share of households	Additional funds for the policy change (mil. MKD)	Share in total additional funds
0	62.4%	0	0.0%
1	17.0%	28.9	12.6%
2	14.2%	40.3	17.6%
3	4.5%	108.6	47.4%
4 or more	1.9%	51.1	22.3%
Total	100%	228.9	100%

Source: Authors' calculations.

Table 15 shows that such a policy intervention may require up to additional 3.7 million EUR annually, part of which stems from the increase of the child allowance for families with three and more children, and the rest – from the relaxation of the eligibility criteria related to assets during the period of reduced market incomes of households due to Covid-19. The distribution of these additional funds among households based on their number of children is provided in **Table 16**. It suggests that the policy intervention is strongly pro-multi-child households, as the additional funds top up income in three- (47.4 per cent) and four-children households (22.3 per cent).

Such intervention further attenuates the effect Covid-19 exerts on child poverty, as corroborated by the simulated figures in **Table 17**. The table consists of all four characteristics which we previously presented in Table 8 and Table 9. The policy – if applied without gender-specific allowances – reduces poverty for both genders but stronger for boys, while working fairly equally along all age groups. The intervention slightly diminishes the absolute child poverty rate at the upper-middle-income line in the cases of households with three or more children. This is expected given the second child allowance threshold was introduced to better target such

Table 17: Simulation of child poverty structure post-Covid-19, relaxed child allowances

	Gender		Age		
	Male	Female	0-5	6-14	15-17
	Compare with Table 8				
Relative poverty (below 60% of the equiv. income median)	32.6%	33.4%	31.0%	31.6%	37.8%
Absolute poverty, below extreme low income threshold	2.2%	2.5%	1.3%	2.9%	1.8%
Absolute poverty, below upper middle income threshold	10.8%	11.6%	9.4%	12.3%	12.0%
	Number of children in household		Average education of adult members		
	2 or fewer	3 or more	Primary or less	Secondary	Tertiary or more
	Compare with Table 9				
Relative poverty (below 60% of the equiv. income median)	24.9%	49.4%	70.1%	31.9%	0.9%
Absolute poverty, below extreme low income threshold	1.1%	4.8%	7.3%	2.0%	0.0%
Absolute poverty, below upper middle income threshold	8.4%	17.0%	29.3%	9.8%	0.0%

Source: Authors' calculations.

households. As this condition probably couples with prevalence of low education of adult members in the households, the absolute poverty rate is likewise reduced within this group.

A longer-term option that could be considered—once Covid-19’s impact fades out—could include the introduction of a universal child guarantee (UCG). This will involve removing the current

income and property eligibility conditions for child allowance, and expansion of child allowance for GMA recipients until the sum of the GMA (including the energy subsidy), the education allowance and the child allowance reaches the minimum wage level. Such an endeavor needs to be combined with interventions within the tax system in order to mobilize funds for its

Table 18: Simulated and additional annual spending for introducing universal child guarantee (UCG)

	Planned spend-ing for 2019	Simulated spending based on 2020 rules	Simulated spending with UCG	Additional funds needed due to UCG
Child allowance (million MKD)	872.5	702	4,048	3,346.3

Source: Authors' calculations and MLSP.

Table 19: Potential additional annual spending for introducing UCG, by number of children in the household

Number of children in the household	Share of households	Additional funds for the policy change (mil. MKD)	Share in total additional funds
0	62.4%	0	0.0%
1	17.0%	1,654.9	49.5%
2	14.2%	1,112.1	33.2%
3	4.5%	400.8	12.0%
4 or more	1.9%	178.5	5.3%
Total	100%	3,346.3	100%

Source: Authors' calculations.

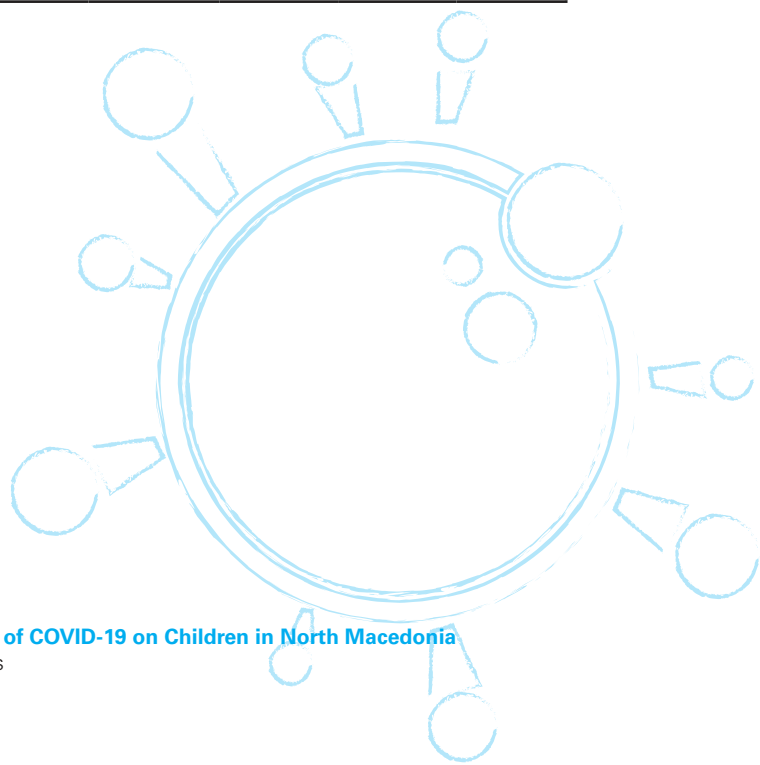
financing. See a discussion on this in **Box 4**. This is particularly relevant since its preliminary differential cost is estimated at EUR54.4 million (**Table 18**). The universality of UCG implies that the distribution of the additional funds is fairly proportional when compared to the share of households by number of children within (**Table 19**).

UCG will result in deeper child poverty reductions (**Table 20**). Such a scheme not only prevents the negative effects of Covid-19 but also reduces poverty rates along all lines compared to the pre-Covid-19 levels.

Table 20: Post-Covid-19 poverty simulations of universal child guarantee (UCG)

	Gender		Age		
	Male	Female	0-5	6-14	15-17
	Compare with Table 8				
Relative poverty (below 60% of the equiv. income median)	29.1%	30.4%	27.1%	28.0%	36.1%
Absolute poverty, below extreme low-income threshold	2.2%	2.0%	1.1%	2.8%	2.1%
Absolute poverty, below upper middle-income threshold	8.0%	9.9%	7.8%	10.1%	8.4%
	Number of children in household		Average education of adult members		
	2 or fewer	3 or more	Primary or less	Secondary	Tertiary or more
	Compare with Table 9				
Relative poverty (below 60% of the equiv. income median)	22.0%	45.6%	61.9%	28.9%	0.9%
Absolute poverty, below extreme low-income threshold	0.8%	4.7%	6.2%	1.8%	0.0%
Absolute poverty, below upper middle-income threshold	5.3%	16.2%	19.5%	7.2%	0.0%

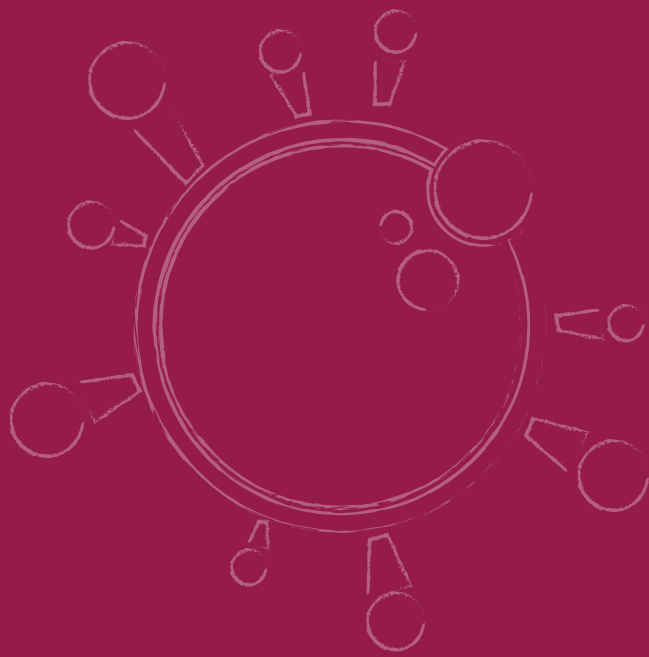
Source: Authors' calculations.



BOX 4: UNIVERSAL CHILD GUARANTEE (UCG) AS A LONG-TERM OPTION

At the European Union (EU) level, the initiative for a child guarantee called for by the European Parliament in 2015, seeks to “ensure that every child in Europe at risk of poverty or social exclusion has access to: free healthcare, free education, free early childhood education and care, decent housing and adequate nutrition.” Frazer, Guio and Marlier (2020) explored the child guarantee and provided arguments for its added value for the children living in precarious family situations; children residing in institutions; children of recent migrants and refugees; as well as children with disabilities and other children with special needs.

At the level of EU member states, Austria, Estonia, Finland, Lithuania and Germany have implemented a universal child benefit. In 2018 in Lithuania, it replaced the child tax allowance by providing a benefit paid to all children from birth until the age of 18, and until 21 for those following a general education program. Estimates found that such a policy would have the largest effect on poverty among families with three or more children, though that it will also reduce the risk of poverty within the 0-17 age group, as well as among the single-parent families (Lazutka, Poviliunas and Zalimiene, 2019).



6.3. ENSURING CONTINUITY OF THE LEARNING PROCESS

The Government prompted a fairly fast, though inequitable, response of the educational system to the physical closures of schools and pre-schools. The best long-term response to this experience boils down to a rethinking of the educational process in terms of planning, implementation and assessment of digital/distance learning. This should encompass the creation of an interactive digital platform that will include multiple functionalities to offer support to teaching and learning. This assumes an integrated system in place that will provide support to all children and pupils regardless of their abilities, socio-economic background and age.

Recommendations:
Adapt the legal framework and adopt a strategy for distance learning and online teaching. Make provisions for the use of technology from home. Make a plan for the usage of laptops or tablets that children

or teaching staff can borrow from schools or another public institution and can use at home to effectively take part in digital/distance classes. Strengthen the system capacities for data/user management, particularly within the Education Management Information System (EMIS) system.

The new/amended legal framework should provide a broad foundation upon which specific activities can be elaborated and should provide enough flexibility for future actions and adaptation to specific circumstances. The strategy for digital/distance learning may incorporate the use of digital learning within the regular curriculum and provide an action plan for the implementation with clear deadlines and advice on implementation for all involved. The strategy should also allow for 'blended learning' – a mix of digital and face-to-face learning, and for learning being shared between school/pre-school and home.

Recommendation:
Create safe spaces equipped with the necessary technology for digital/distance learning within schools and pre-school facilities.

These spaces can be used by teachers as well as pupils to access educational materials, learning platforms and communicate with each other in situations of limited access to technology at home. Special attention needs to be paid to assistive technologies within such spaces. At the pre-school level, such spaces could function even during the state of emergency, to provide support to families that need urgent care for children. They can also serve as advisory and resource centers for materials to help the parents stimulate early learning in children.

Recommendations:
Provide professional development opportunities for teachers for integrating digital learning within regular classes as well as in exceptional circumstances.

Provide continuous support to teachers during the implementation of digital learning. Prepare a plan for remedial learning when pupils go back to physical classrooms. Rethink the curricula and teaching plans to give teachers more flexibility in the implementation.

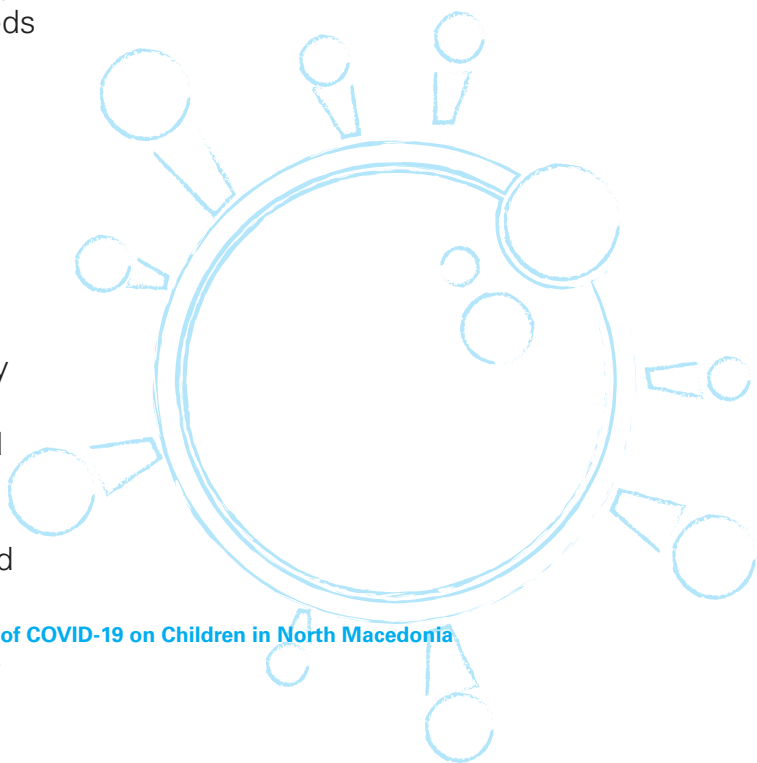
Adjusted curricula may highlight learning outcomes and the building of critical skills rather than material to be covered in teaching. As emotional and mental health is becoming increasingly important, curricula may integrate health and wellbeing issues. This will, inter alia, ensure that pupils and parents are supported in their home learning about mental health issues. This can take the form of materials being posted online or local support groups being organized.

The database may include

Recommendations:
Establish a database of socially vulnerable children at school level. Prepare a plan for educational assistance to those in need when the schools reopen, such as children at risk of dropping out, or children in need who are moving to the next stage of education. Include local child protection services and social protection services in the preparation of these plans.

families in need of quick support as their circumstances change (e.g. moving into poverty, or because of family bereavement). The data would also be very valuable when cumulated at the national level, to inform policy responses targeted at groups which risk underperformance, such as Roma children.

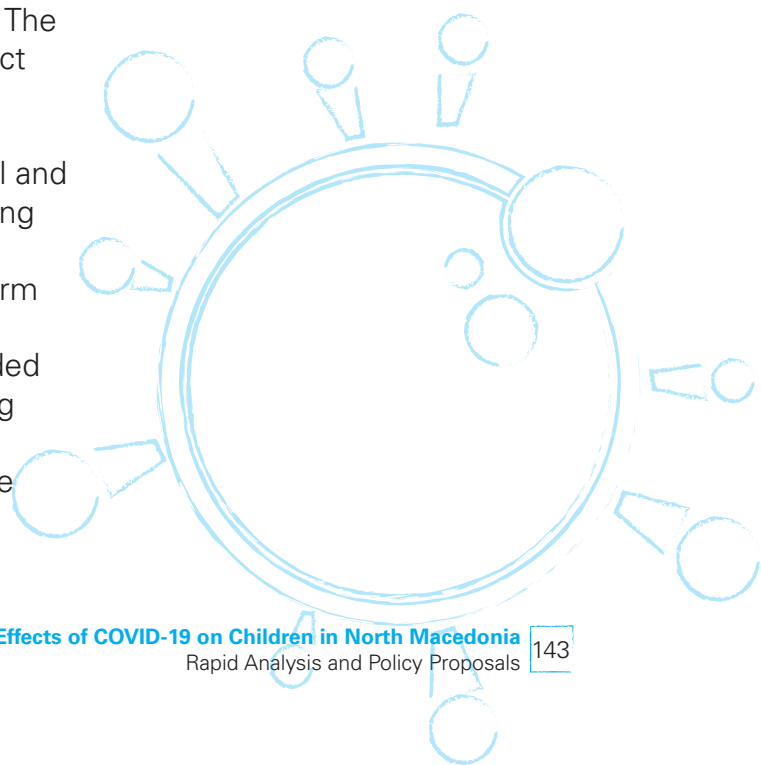
information on the socio-economic background of the children as well as data about possibilities of parental support and guidance. The data needs to be kept confidential and used only for the purposes of enhancing learning and helping child achievement in all circumstances. The data should be regularly updated with tracking data about the progress and attainment of pupils as they move upwards from pre-school through primary and secondary education. Such data would help schools identify individual pupils and



6.4. MITIGATING HEALTH PROBLEMS RELEVANT TO CHILDREN

We have identified a gap between the needed and provided healthcare services to the population during the outbreak of Covid-19. Yet, the reduction in services to children has been slightly lower than for the general population, which in the circumstances may be considered positive. Nonetheless, the risk of reduced healthcare provision for children is still looming. The current pandemic has again brought to our attention the scant medical human resources, notably of epidemiologists, infectious diseases specialists and supporting staff (nurses, lab technicians) in the country. The current pandemic may affect current child development but also cause longer-term physiological, psychological and epigenetic changes occurring in utero and during early development. Such long-term effect of the pandemic for children may be compounded by the perils of the lingering economic crisis and rising inequalities well beyond the confinement.

Despite the pre-Covid-19 strive of health authorities in North Macedonia to improve the health of children, pregnant women and mothers with newborns, the Covid-19 pandemic created additional obstacles. The following recommendations may minimize the negative externalities of this pandemic for children.



Recommendations:

Handling of the health and economic crisis due to Covid-19 must occur simultaneously. The Government should promptly adopt an action plan and start implementing measures for improving the health of the population, which has worsened due to lockdown of the health system.

Ensuring access to routine care during antenatal and postnatal periods and to child preventive and curative services should be a priority. The Ministry of Health should coordinate gynecologists and pediatricians at all levels of the health system to make sure there are no delays related to these services.

There is a need to prevent delays in accessing hospital care and to increase provision of high-quality coordinated care by healthcare providers. The Ministry of Health should urgently enable the resumption of all health services in all

health centers, introducing Covid-19 checkups prior to hospitalizations.

Awareness must be raised among parents that risks of delayed access to hospital care for emergency conditions can be much higher than the risks posed by Covid-19. Public campaign can be effective in educating and raising the awareness of parents.

Mitigating actions need to be taken to support mental health of children as part of a family support package. The Ministry of Health should emphasize policies and actions in the area of mental health in the post-Covid-19 recovery.

Once the pandemic subsides, the country should reinvigorate demand for routine healthcare and vaccination, as well as intensify preventive check-ups among children, to contain as much as possible the risks posed by postponing regular healthcare during the Covid-19 period.

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