



**World Health  
Organization**

REGIONAL OFFICE FOR **Europe**

# **Mitigating the impacts of COVID-19 on maternal and child health services**

**Copenhagen, Denmark  
8 February 2021**

**MEETING REPORT**

## ABSTRACT

The COVID-19 pandemic continues to disrupt access to, and utilization of, maternal and child health services. Children, adolescents and mothers are not getting the care they need; for some conditions, this may have life-long and sometimes life-threatening consequences. The WHO Regional Office of Europe has worked intensively with five countries (Kazakhstan, the Netherlands, Romania, Tajikistan and the United Kingdom) to document changes in health service delivery and disruptions, and to find ways to mitigate these unintended consequences. This meeting provided an opportunity to share experiences, identify trends and establish the scale of health service disruptions due to COVID-19.

### Keywords

COVID-19  
HEALTH CARE SYSTEMS  
CHILD HEALTH  
ADOLESCENT HEALTH  
MATERNAL HEALTH

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# CONTENTS

	<i>Page</i>
Acknowledgements.....	iv
Executive summary .....	1
Background.....	2
Objectives .....	2
Session 1. Scale and trends of health service disruptions and health system changes .....	3
Lessons learned from the project globally .....	3
Country presentations.....	4
Session 2. Building resilient health systems for children and mothers for the next COVID-19 resurgences and beyond .....	7
Panel reflections from countries .....	7
Digital health.....	8
Data and health information systems.....	8
Primary health care .....	9
Framework for measuring and improving health system resilience for children and adolescents.....	10
Way forward and next steps.....	12
Next steps .....	12
Annex 1. Detailed summary of country/region presentations.....	13
Annex 2. Agenda.....	16
Annex 3. Participants.....	18

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## Executive summary

The COVID-19 pandemic continues to disrupt access to, and utilization of, maternal and child health services. Children, adolescents and mothers are not getting the care they need; for some conditions, this may have life-long and sometimes life-threatening consequences.

The WHO Regional Office for Europe has worked intensively with five countries (Kazakhstan, the Netherlands, Romania, Tajikistan and the United Kingdom) to document these disruptions and find ways to mitigate them. The work in Kazakhstan, Romania and Tajikistan was supported by the Bill and Melinda Gates Foundation.

Declines in maternal and child health services were observed in most countries, with some observing extreme drops in access to health services. Despite efforts to mitigate disruptions, health services have not caught up and are still insufficient to meet children's, adolescents' and mothers' needs in most countries.

Digital health has played a major role as part of mitigation solutions and has been reasonably successful, with many countries diverting to the use of telemedicine and digital health to ensure continuity of health care during the COVID-19 pandemic. Digital health can be part of the solution, but some services need to continue to be provided in person, even during pandemics. Childhood cancer diagnoses have been much delayed in some settings.

Issues regarding data and health information systems were among the main challenges identified in quantifying the scope of disruptions to services in countries. COVID-19 unveiled many weaknesses within health systems, with availability of data and health information systems being among the most common. Where data were available, interpretation of data was an additional problem. All countries will benefit from documenting disruptions routinely. This will provide the basis for action to mitigate negative consequences for children and mothers.

The pandemic has put health systems and their ability to deliver health services under additional pressure. Primary health care, which is at the centre of health service delivery in many health systems, experienced huge strains as COVID-19 led to severe disruption. Maintaining a balance between mounting an effective COVID-19 response and ensuring continuity of health services has been challenging for many countries.

Overall, there is a strong need to shape resilient health systems for children, adolescents and mothers in preparing for, and effectively responding to, crises.

A framework with indicative measures specific to children and adolescents is being developed to allow measurement and improvement of health system performance for children, adolescents and mothers both during COVID-19 and beyond, under routine circumstances and emergency situations.

## Background

The COVID-19 pandemic has continued unabated for more than a year. It continues to pose difficult and unprecedented challenges to governments, health systems, communities and individuals, not only in striving to control transmission rates to prevent morbidity and mortality from COVID-19, but also in mitigating the indirect impacts of these control measures.

Lockdowns, repurposing of health facilities for COVID-19 care, closure of primary health services, redeployment of health staff to COVID-19 care, fear of infection and loss of income have resulted in disruptions to accessing and delivering quality essential services. At the same time, governments face challenges in finding ways in which they can continue to provide access to all essential health services, including those for children and mothers. During the first wave of the pandemic, several projections were made on the potential impact of COVID-19 on maternal and child health services. A pulse survey conducted last year by WHO suggests that essential routine services were disrupted in many countries, leaving mothers and children without access to the care they needed.

The WHO Regional Office of Europe has worked intensively with five countries (Kazakhstan, the Netherlands, Romania, Tajikistan and the United Kingdom) to document changes in health service delivery and disruptions, and to find ways to mitigate these unintended consequences. The Bill and Melinda Gates Foundation (BMGF) has supported Kazakhstan, Romania and Tajikistan as part of a larger project that includes 20 countries globally. This meeting provided an opportunity to share experiences, identify trends and establish the scale of health service disruptions due to COVID-19.

## Objectives

The objectives of the meeting were to:

- review the scale of, and trends in, health service disruptions for children and mothers due to the COVID-19 pandemic;
- review implemented health system changes concerning children and mothers in response to the COVID-19 pandemic, including digital health and telemedicine for children and mothers; and
- share experiences among countries and establish collaboration for building resilient health systems for children and mothers during future resurgences of COVID-19 and beyond.

A summary of country/region presentations from the meeting is provided in Annex 1. Annex 2 presents the meeting agenda and Annex 3 the participants.

## Session 1.

# Scale and trends of health service disruptions and health system changes

### Lessons learned from the project globally

**Blerta Maliqi (Technical Officer, Maternal and Child Health, WHO headquarters)** summarized the findings and initial observations from the BMGF project in the participating 20 countries across all WHO regions. Response to any disruption requires close communication between the emergency team, health system team and other health areas. Coordination among partners is important, but at times, some key partners are forgotten. A broader set of implementing partners that includes health workers and community representatives therefore is needed, with assured access for women's voices to be heard and consideration of gender issues and the needs of different disciplines.

The designation of some facilities for COVID-19 use had negative implications, including impacts on the use of pregnancy, childbirth and child health services. In addition, limiting transportation, such as ambulances, had negative implications.

Caring for health workers is a key issue, as they require additional support. Workloads should be considered and measures to ensure effective infection prevention and control, provision of personal protective equipment (PPE) and interventions to address long-term stress and mental health disorder should be in place.

Financial incentives for health workers are unclear. On many occasions, governments have not been able to deliver on promised incentives, or incentivization has caused distortions between provision for COVID-19 services and that for other services.

Digital technology provides an important communication means and has been used for online training. The quality of interaction in online medical consultations and the effect of telemedicine will require further research to establish whether messages can be conveyed correctly through this medium. It is important to balance the use of online technology with more traditional methods, as some consultations and training will continue to require face-to-face interaction.

Countries have also highlighted the importance of data and called for improvements in the collection, quality and use of data.

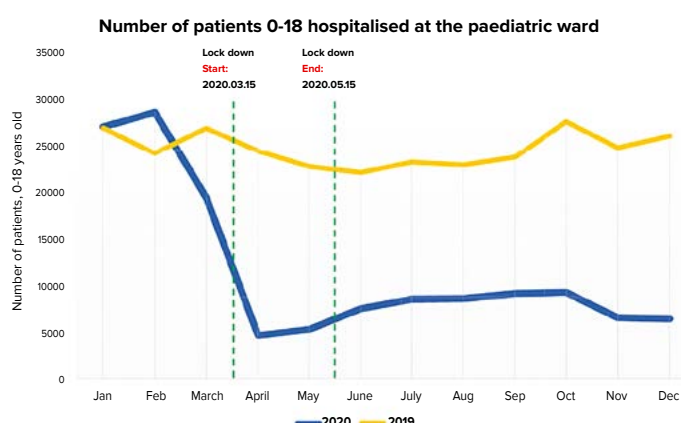
It is imperative to ensure that lessons learned are taken up in plans for preparedness in the future.

## Country presentations

Countries presentations were delivered by: **Caroline Clarinval (WHO Representative, WHO Country Office, Kazakhstan); Danielle Jansen (Associate Professor, University Medical Centre Groningen, the Netherlands); Ioana Pop (consultant, WHO Country Office, Romania); Zulfiya Abdusamatzoda (Deputy Minister, Tajikistan); Eileen Scott (Health Intelligence Principal, Public Health Scotland, United Kingdom); and Steve Wyatt (Head of Strategic Analytics, NHS Midlands and Lancashire Commissioning Support Unit, United Kingdom).**

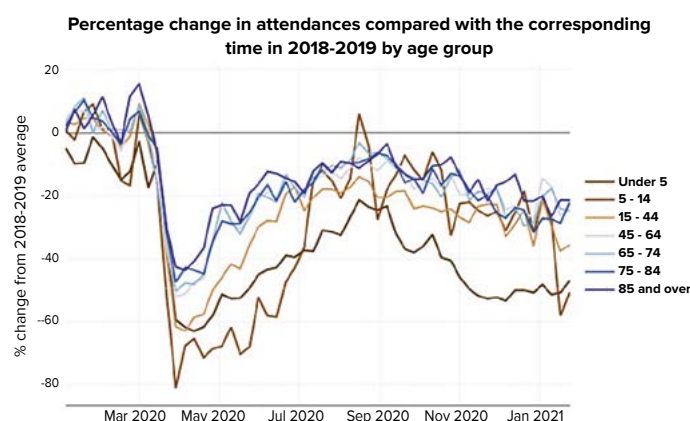
Most countries had experienced drops in access to health services, but extreme declines had been observed in some. Overall, health systems had been exposed to a shock due to COVID-19 leading to disruption in essential health services for children and mothers (Fig. 1–4 show examples from countries and regions).

**Fig. 1. COVID-19 health disruptions in Romania**



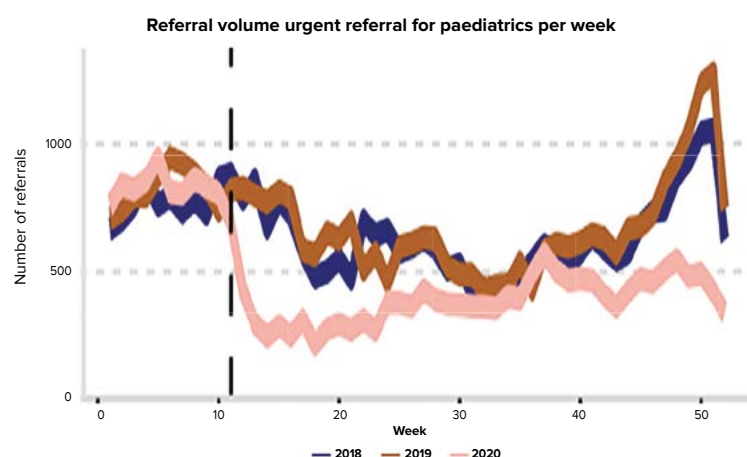
Source: Romania Diagnostic Related Groups 2020, Permission granted to publish.

**Fig. 2. COVID-19 health disruptions in United Kingdom (Scotland)**

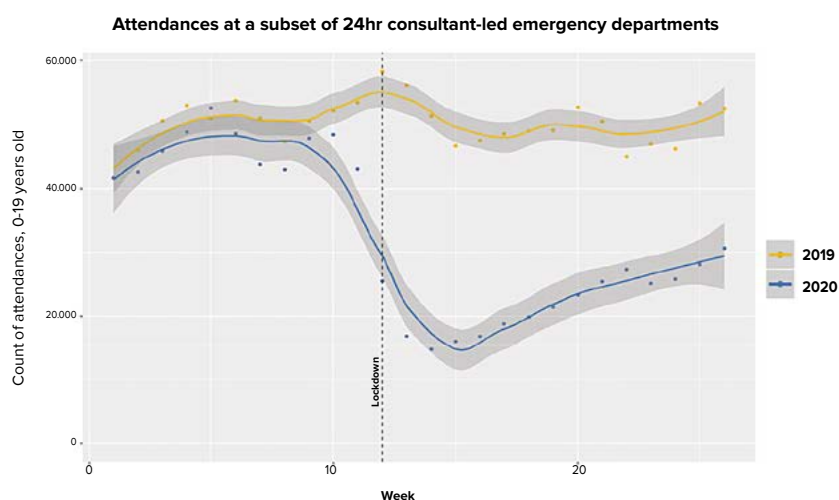


Source: Wider Impacts Dashboard PHS Scotland 2020, Permission granted to publish.



**Fig. 3. COVID-19 health disruptions in the Netherlands**

Source: Nederlandse Zorgautoriteit (Dutch Healthcare Authority) 2020, Permission granted to publish.

**Fig. 4. COVID-19 health disruptions in United Kingdom (England)**

Source: NHS Midlands and Lancashire Commission Support Unit 2020, Permission granted to publish.

Two common themes were identified as reasons for disruption: changes in demand and patient behaviour; and changes in health-care supply. In relation to patient behaviour, reluctance to visit health-care facilities due to fear of getting infected with COVID-19 had been observed. The decline in numbers of children accessing services preceded official lockdown in many settings (see Fig. 1 and 4). There may also have been reduced prevalence of certain conditions, such as unintentional injuries and other respiratory infections, due to the lockdown. On the health-care supply aspect, policy measures mandating closure or reducing operation of facilities, deferral of elective procedures and repurposing of staff for COVID-19 response were common reasons for disruption.

One of the most frequent responses to health service disruptions was expansion of the use of digital health. There is an urgent need to develop the necessary regulatory frameworks and explore the limits of telemedicine for children and mothers.

Many countries in the WHO European Region, as elsewhere, still have insufficient routine data-collection mechanisms, have problems with the quality of data or do not use the data for decision-making. Some countries were also reluctant to share their data. Disaggregated data on adolescents' access to health services were not available in most settings.

When routine health service utilization data were available, problems in interpretation, partially due to the quality of the data, sometimes were seen. Unmet needs during the pandemic need to be disentangled from over-hospitalization before COVID-19 to explain fully the prominent drops in hospitalization rates of children.

Independently from the pandemic, it became apparent that current health system performance measurement approaches do not include specific indicators for child and maternal health beyond mortality rates. More information on disruptions and mitigation methods of each country can be found in Table A1.1 of Annex 1.

## Session 2.

# Building resilient health systems for children and mothers for the next COVID-19 resurgences and beyond

### Panel reflections from countries

**Zulfiya Abdusamatzoda (Deputy Minister, Tajikistan)** expressed Tajikistan's commitment to preventing maternal and childhood mortality and improving the quality of maternal and child health during the time of COVID-19. Experience of the pandemic means Tajikistan would like to develop a health-care delivery plan and strengthen the health system for emergency situations. The country has requested assistance from WHO to develop the action plan.

Tajikistan currently has been declared COVID-19-free, but the country response team will continue carrying out response work, as pregnant women and children have suffered the impact of the pandemic. The Government has worked hard to counteract fear and is doing its best to minimize the negative effects of the pandemic by working closely with local authorities, communicating on a real-time basis through regular online video meetings. Health-care workers have been providing home visits to cover the whole population. Special teams of health-care workers (obstetric/gynaecology doctors and nurses) are being sent to rural areas to provide additional assistance for maternal and child health. The Deputy Minister shared that Tajikistan is ready for political dialogues to improve services for mothers and children and enhance the availability, quality and use of data to support decision-making and bolster the delivery of health services.

**Eileen Scott (Health Intelligence Principal, Public Health Scotland, United Kingdom)** reflected on the impact of COVID-19 on children and mothers and the need for building resilient health systems. She noted that all countries have shared common experiences during COVID-19 and realize how challenging it is to sustain and deliver health services for children, adolescents and mothers. Children have not experienced the direct clinical effects of COVID-19 to the same extent as adults, but they have been most negatively affected and will potentially face the greatest lifelong impact. She called for the development of a set of core indicators that can go beyond COVID-19, as the effects will last far longer, and which should be reported relatively frequently to create a dataset that is directly comparable between countries to enable them to assess performance and understand the challenges better. This is important to enabling the development of quick and timely emergency response systems and strategic plans for maternal, child and adolescent health.

**Marius Ungureanu (WHO National Counterpart, Ministry of Health, Romania)** reflected on changes seen in Romania during the COVID-19 pandemic. The use of electronic medical records in Romania has been discontinued due to the pandemic, but the introduction of teleconsultations has helped in providing medical services. He acknowledged the importance of building resilient health systems further and highlighted the importance of supporting the health workforce as they adjust to the new reality and practice.

The closure of specialist ambulatory care in Romania has put a strain on health systems and needs to be addressed. As phone consultations and telemedicine have had great impacts in facilitating access to health services, Romania has been working to adopt legislation on the use of telemedicine and has requested further consultation on which services can be delivered safely through this format.

## Digital health

Digital health was a major theme throughout the meeting, as many countries have turned towards the use of telemedicine and digital health to ensure continuity of health care during the COVID-19 pandemic. Although telemedicine and digital health are not new concepts, COVID-19 has accelerated implementation and recognition of their benefits.

**Clayton Hamilton (Technical Officer, Digital Health, WHO Regional Office for Europe)** provided further explanations on the pros and cons of telemedicine and digital health. He pointed to the importance of supporting countries to facilitate proper transition to telemedicine when adopting digital health in their health systems. Digital systems and interventions have been well used during the pandemic for antenatal and postnatal care, and for child presentations. Digital health facilitates online booking and prescription systems, but digital solutions are not equitably available to all, leading to marginalization of people without the necessary equipment to access digital health services.

Many countries have implemented a range of digital solutions without having had the time to recalibrate and reorganize their health systems accordingly. The benefits of digital health may have outweighed these deficits during the COVID-19 pandemic, but the long-term impacts of digital health, particularly for children and mothers, are still to be assessed, and more studies will be needed. Beyond the pandemic, if taken gradually and in a structured way, it should be possible to leverage the very best value from digital technologies. Collaborative work will be required within the WHO European Region to build a framework around maternal and child health to facilitate the use of digital health and clearly delineate its limitations.

## Data and health information systems

COVID-19 has unveiled many weaknesses within health systems. Issues regarding data and health information systems are among the main challenges that have become apparent during the pandemic.

**Theresa Diaz (Coordinator, Epidemiology Monitoring and Evaluation, Maternal and Child Health, WHO headquarters)** and **Liz Katwan (Data Manager, Epidemiology Monitoring and Evaluation, Maternal and Child Health, WHO headquarters)** further explained the challenges countries face in the process of collecting data. A guidance document with a set of routine indicators to monitor the effects of COVID-19 on essential services has been developed by WHO headquarters to support the monitoring of routine data. Some countries have been able to compile data based on the routine indicators. WHO headquarters has helped countries develop dashboards to look at performance-monitoring while others have developed their own systems.

There were difficulties in collecting data in countries where routine indicators were not available, and none of the countries participating in the global BMGF-funded project were able to collect data related to adolescent health. Problems with completeness and quality of data were also encountered. Data need to be better used to enable understanding of the true disruption to services through more in-depth analysis, and joint working between countries and WHO at country and regional levels to identify important lead indicators for measuring maternal and child health systems' performance is vital. Indicators may need to be constructed differently to reflect individual health management systems. It nevertheless is crucial to increase the speed of routine data collection and analysis.

**Karapet Davtyan (Technical Officer, Data Metrics and Analysis, WHO Regional Office for Europe)** elaborated further on the critical need to strengthen health data and information systems. COVID-19 has brought unexpected data demand to support national health responses. Health information systems in many countries are either absent or not designed to provide real-time information for decision-making. The inability effectively to generate and manage the volume and different types of data from routine health information systems highlights existing problems, such as lack of data standardization, delays in receiving data and lack of integration between different health information systems. Too few people trained in managing and using data has impacted almost all areas of health care throughout the pandemic.

The pandemic has forced health systems to use innovative digital technologies to strengthen the ability to generate case information and open new possibilities for public health surveillance and dissemination. Capacity-building and human resources to work on big and newly generated data, situation analysis and a framework for aligned data management in the European Region is needed.

## Primary health care

Primary health care (PHC), which is at the centre of health service delivery in many health systems, is experiencing huge pressure during the pandemic. Pulse surveys conducted repeatedly throughout the pandemic show that COVID-19 has led to severe disruption in PHC. Maintaining a balance between making the COVID-19 response and ensuring the continuity of health services has been challenging for many countries.

**Zulfiya Pirova (Technical Officer, Primary Health Care, WHO European Centre for Primary Health Care)** addressed the need to strike a balance between COVID-19 and non-COVID-19 health service deliveries within PHC. Health systems need to adopt a dual-track dynamic approach that allows health systems simultaneously to manage COVID-19 responses and deliver essential health services in one parallel system, with one track providing a full range of services needed to prevent, diagnose and treat COVID-19 patients and the other ensuring essential health services remain available.

Reports of low uptake of services due to disrupted services, difficulties in accessing new service-delivery platforms and fear of the infection are increasing. It is very likely that most health systems eventually will see an increase in demand for health services from delayed care-seeking behaviour for acute conditions, preventive services or chronic disease management. PHC needs to play a critical role in maintaining this dual focus on COVID-19 and essential health services to minimize negative health impacts. It requires additional resources to respond to existing and new demands, enhance and optimize platforms for service delivery through telemedicine, and restore confidence in the safety of health-care-seeking behaviour.

To prepare for the anticipated increased demand for primary care services in the near future, demand needs to be matched with an increase in resources, workforce and supplies. The pandemic has revealed long-standing weaknesses in health systems, but some countries have taken the opportunity of the crisis to accelerate long-term reforms and build resilient health systems.

### Framework for measuring and improving health system resilience for children and adolescents

**Ingrid Wolfe (Director, Institute for Women's and Children's Health, London, United Kingdom)** and **Marina Karanikolos (consultant, European Health Systems Observatory)** led participants through the proposed health systems performance assessment (HSPA) framework in detail. The overall framework is not focused specifically on maternal and child services, but could be adapted to the context of maternal and child health. Disruptions in child and maternal health services seen during the pandemic include those to immunization programmes, preventive check-ups, primary care visits, antenatal consultations and non-emergency specialist care, while the general population, including mothers and children, have experienced disruptions to mental health and dental care, and rehabilitation services.

Assessing resilience in response to COVID-19 was used as an example to demonstrate how the HSPA framework can be used to measure health system performance for children and mothers. The framework considers, among other things, governance, coordination, communication, financial resources and service delivery. Governance helps to indicate if there is a culture of learning, ability to act fast, effective and transparent communication and international collaboration. Coordination assesses if strategies are clear and widely understood and whether coordination exists across different levels, such

as between government sectors, administrative tiers and organizations, and among international partners. The functioning of communication channels and surveillance are also assessed. The framework further assesses whether there are sufficient resources – human and financial – and that the distribution of resources allows for the maintenance of services.

Service delivery is assessed to see whether health systems are able to provide flexible approaches to delivering care. Using the HSPA framework makes it possible to highlight weaknesses in health system performance and identify how to address them.

**Josep Figueras Marimont (Head of Office, European Health Systems Observatory)** reflected on the country presentations, the panel discussion and the presentation of the health systems performance framework.

He proposed that a set of indicative measures specific for children and mothers should be developed to allow for interpretation and comparison of health systems' performance for children and mothers both within larger health system performance assessments and through standalone approaches.

## Way forward and next steps

**Natasha Azzopardi-Muscat (Director, Country Health Policies and Systems, WHO Regional Office for Europe)** closed by providing the important takeaways of the meeting.

The meeting highlighted that the whole Region is experiencing difficulties and similar critical core issues are surfacing across countries. COVID-19 has unmasked and magnified many health system problems that were lying beneath the surface. It is vital to look closely at country and regional levels at how WHO can support scaling-up of service utilization and close the gaps in service provision. A focus on children and adolescents in health systems' performance assessments will be crucial to leaving no one behind. It is imperative for all to join forces going forward to provide health services for children, adolescents and mothers.

### Next steps

Meeting participants agreed that building resilient health systems is imperative to enabling health systems to respond better to shocks in future crises. A framework for measuring and improving health system resilience to deliver health services to children and mothers during COVID-19 and beyond needs to be developed. The WHO Regional Office for Europe is requested to support this development, given the need to address the current crisis and prepare for future crises.

Participants called for further collaboration between countries and contributions to developing a set of indicative measures specific for children and mothers to allow for interpretation and comparison of health system performance for children and mothers both within larger health systems' performance assessments and as standalone approaches.



## Annex 1

### Detailed summary of country/region presentations

A detailed summary of country/region presentations is shown in Table A11.

**Table A1.1**

Item	Romania	Tajikistan	United Kingdom (England)	United Kingdom (Scotland)	Netherlands	Kazakhstan
<b>Reasons for disruption of health services</b>	<ul style="list-style-type: none"> <li>• National/local lockdown restrictions</li> <li>• Closure of ambulatory services during lockdown</li> <li>• Fear of COVID-19</li> <li>• Reduction in the number of inpatient beds due to physical distancing restrictions</li> </ul>	<ul style="list-style-type: none"> <li>• National/local lockdown restrictions</li> <li>• Fear of COVID-19</li> </ul>	<ul style="list-style-type: none"> <li>• Reductions in outdoor play and social interactions causing fewer presentations</li> <li>• COVID-19 has increased the risks of attending emergency departments (EDs)</li> <li>• While EDs remained open during the pandemic, patients were advised to call the non-emergency or emergency medical helpline numbers before attending</li> </ul>	<ul style="list-style-type: none"> <li>• Families reluctant to use health services because they do not want to burden the health service or are anxious about the risk of infection</li> <li>• Families unaware of what services are available and how to access them</li> <li>• Changes in the delivery of health services in response to rising numbers of COVID-19 hospital admissions and community transmission – redeployment of staff, telemedicine etc.</li> <li>• Health service delaying preventive and non-urgent care</li> <li>• Disruption to services accessed in schools due to closures and restricted access to the setting on reopening</li> </ul>	<ul style="list-style-type: none"> <li>• Higher absenteeism of health-care professionals</li> <li>• Decrease of accidents</li> <li>• Parents'/health-care professionals' fear of infection</li> <li>• Role of telemedicine</li> </ul>	<ul style="list-style-type: none"> <li>• Not applicable</li> </ul>

Item	Romania	Tajikistan	United Kingdom (England)	United Kingdom (Scotland)	Netherlands	Kazakhstan
<b>Changes in the health system</b>	<ul style="list-style-type: none"> <li>Changes to be continued during the current crisis but discontinued thereafter:               <ul style="list-style-type: none"> <li>✓ temporarily pausing the use of the electronic medical card</li> </ul> </li> <li>Changes to be institutionalized and to be continued in the long run:               <ul style="list-style-type: none"> <li>✓ phone consultations and telemedicine – remote consultations</li> </ul> </li> <li>Changes to be discontinued as they did not have the desired effect and/or had an unintended consequence:               <ul style="list-style-type: none"> <li>✓ closure of ambulatory services</li> </ul> </li> <li>Changes to be introduced to build resilient health systems:               <ul style="list-style-type: none"> <li>✓ phone consultation and telemedicine</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Intensive home visits, although they caused a lot of stress for PHC staff               <ul style="list-style-type: none"> <li>• Involvement of vertical institutions (such as reproductive centres, HIV, tuberculosis, immunization etc.) in the home visits helped to strengthen coordination between vertical services and their relationship with PHC/family medicine and communities was improved during the pandemic, but is NOT sustainable</li> </ul> </li> <li>All ambulance services had been directed toward patients with signs of COVID-19, potentially limiting access to this service for patients with other emergency conditions; ambulance services are now working as normal</li> <li>Phone and Internet-based communications were used for patients' follow up, and e-learning methods were used: this needs to be developed in a more systematic way and overall, the momentum should be used to promote telemedicine and e-health</li> </ul>	<ul style="list-style-type: none"> <li>Changes to be continued during the current crisis but discontinued thereafter:               <ul style="list-style-type: none"> <li>✓ reductions in childhood social outdoor play and sport</li> </ul> </li> <li>Changes to be institutionalized and to be continued in the long run:               <ul style="list-style-type: none"> <li>✓ advice to call before you attend an ED</li> <li>✓ reduced transmission of communicable diseases</li> </ul> </li> <li>Changes to be discontinued as they did not have the desired effect and/or had unintended consequences               <ul style="list-style-type: none"> <li>✓ generic messages about whether to attend ED</li> </ul> </li> <li>Changes to be introduced to build resilient health systems               <ul style="list-style-type: none"> <li>• provision of tailored information and support to help children and their carers take appropriate decisions about whether to attend ED</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Changes to be continued during the current crisis but discontinued thereafter:               <ul style="list-style-type: none"> <li>✓ reduction in social activities likely to lead to decreased unintentional injury and infectious disease transmission</li> </ul> </li> <li>Changes to be institutionalized and to be continued in the long run:               <ul style="list-style-type: none"> <li>✓ action to understand and sustain increased rates of breastfeeding and learning from how immunization rates were maintained</li> <li>✓ information to families about how to access health and other services</li> <li>✓ prioritization of children's services as an important part of overall recovery</li> </ul> </li> <li>Changes to be discontinued as they did not have the desired effect and/or had unintended consequences:               <ul style="list-style-type: none"> <li>✓ redeployment of staff in children's services and scaling down of services</li> </ul> </li> <li>Changes to be introduced to build resilient health systems:               <ul style="list-style-type: none"> <li>✓ more granular data to understand patterns of reduction in use of services</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Changes to be continued during the current crisis but discontinued thereafter:               <ul style="list-style-type: none"> <li>✓ fewer accidents, high absence rate and fear of infection</li> <li>✓ scaling down of care</li> </ul> </li> <li>Changes to be institutionalized and to be continued in the long run:               <ul style="list-style-type: none"> <li>• continue the use of telemedicine in some forms and to some extent, depending on the circumstances</li> <li>✓ some referrals to paediatrics/some scaling down of care</li> </ul> </li> <li>Changes to be discontinued as they did not have the desired effect and/or had unintended consequences:               <ul style="list-style-type: none"> <li>✓ continue the use of telemedicine in some forms and to some extent, depending on the circumstances</li> </ul> </li> <li>Changes to be introduced to build resilient health systems:               <ul style="list-style-type: none"> <li>✓ remove production incentives from the system and focus on appropriate care</li> <li>✓ investment in digital care</li> <li>✓ more leadership by the Government in the collection of important data</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Patients were divided into groups according to potential risks and decisions on home visits for antenatal and postpartum care and child visits were made based on these risk groups</li> <li>Use of digital tools in health care, such as the DamuMed application for online appointments to PHC facilities, or online messaging services, such as Whatsapp or Telegram, to ensure direct and continuous contact with patients</li> <li>Regardless of the epidemiological situation, strict focus has been maintained on continuing routine medical support for pregnant women and children, patients receiving haemodialysis, patients with cancer and oncology–haematological diseases, and those for whom treatment delays could threaten their life</li> </ul>

Item	Romania	Tajikistan	United Kingdom (England)	United Kingdom (Scotland)	Netherlands	Kazakhstan
<b>Lessons learned</b>	<ul style="list-style-type: none"> <li>• Phone consultations represent a successful method of alleviating adverse effects in cases of reduced accessibility/ addressability</li> <li>• Closure of outpatient care in the case of lockdowns can place great pressure on the health system</li> <li>• Health service providers have been adapting and taking the best measures for them</li> </ul>	<ul style="list-style-type: none"> <li>• There was no specific plan for maintaining emergency health services (EHS) during emergencies in the country; this gap needs to be filled now for future use and should include all essential aspects, such as affordable access to medicines, diagnostics and care, and protection of citizen's health during crises</li> <li>• Routine data reporting does not include specific arrangements for data collection on EHS during emergencies:               <ul style="list-style-type: none"> <li>✓ as part of the preparedness plan, the establishment of a data-collection system is needed to ensure access to real-time data</li> </ul> </li> <li>• The Ministry of Health and Social Protection to create a supportive culture and environment for accurate data reporting by:               <ul style="list-style-type: none"> <li>✓ diminishing the punitive culture around reporting problems</li> <li>✓ building capacity in data collection and using evidence for decision-making at all levels</li> </ul> </li> <li>• Use of qualitative data could also be integrated into data-collection systems for and during emergencies</li> <li>• Further systematic capacity-building for health workers</li> <li>• Engagement of civil society and the private sector, each of which showed generosity and solidarity during the pandemic</li> </ul>	<ul style="list-style-type: none"> <li>• In the short term, most childhood ED attendances can be avoided or diverted; more work is required to understand the implications</li> <li>• The effects of inequality compound the problems; black and minority ethnic groups, who have poorer access to health care and who felt the effects of COVID-19 disproportionately, may have experienced greater harms by staying away from ED in greater numbers</li> <li>• Better systems to track adverse outcomes and unintended consequences of policy decisions are needed</li> </ul>	<ul style="list-style-type: none"> <li>• Protection of universal child health services and prioritized delivery of these services</li> <li>• Inequalities in access and outcome are likely to be exacerbated; key comparable data produced at regular intervals and connected to service improvement are essential</li> <li>• Communication with parents and children about what services are available and how to access them</li> </ul>	<ul style="list-style-type: none"> <li>• It appears that both unnecessary care and too little care are being provided: data are needed to explore this phenomenon</li> <li>• In the second COVID-19 resurgence, anticipation was better and fewer adjustments to health care were made than in the first wave</li> <li>• More data need to be collected on a regular basis on process (such as access) and to be able to compare between subgroups</li> <li>• More data on outcomes are needed to link them to process measures</li> </ul>	<ul style="list-style-type: none"> <li>• Risk communication plays a vital role in increasing the awareness of risks and protective measures</li> <li>• Accurate information must be made available</li> <li>• Access to quality of medical services should be ensured through capacity-building of health-care personnel</li> <li>• Development, dissemination and implementation of new patient triage and patient pathway standard operating procedures and prioritization of services according to WHO guidelines, based on patient needs</li> </ul>

## Annex 2

### Agenda

#### Mitigating the impacts of COVID-19 on maternal and child health services

The COVID-19 pandemic is posing unprecedented challenges to governments and health systems and efforts to mitigate the direct impacts of the COVID-19 pandemic are imperative. At the same time, COVID-19 and the efforts to respond to the pandemic continue to impact access and utilization of health services for children and mothers. Evidence suggest that strengthening the capacity of health actors, institutes and populations, thereby shaping resilient health systems, is fundamental to preparing and effectively responding to this and future crises.

Countries<sup>1</sup> are invited to a regional meeting to present the scale of disruptions in health services as well as efforts implemented to respond to the challenges health systems have faced during the COVID-19 pandemic. A particular focus will be placed on efforts to bridge data collection to policy development. The meeting will further review lessons learned from the pandemic and establish collaboration among countries in the WHO European Region for building resilient health systems for children and mothers during the next resurgences of COVID-19 and beyond.

The meeting will be held through Zoom and Russian/English translation will be made available.

#### Draft agenda

Objectives of the meeting:

1. to review the scale and trends of health service disruptions for children and mothers due to the COVID-19 pandemic;
2. to review implemented health system changes concerning children and mothers in response to the COVID-19 pandemic, including digital health and telemedicine for children and mothers; and
3. to share experiences among countries and establish collaboration for building resilient health systems for children and mothers during the next resurgences of COVID-19 and beyond.

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<sup>1</sup> In three of the participating countries – Kazakhstan, Romania and Tajikistan – this work was funded by the Bill and Melinda Gates Foundation

Opening session		
10:00–10:15	Opening and welcome	Natasha Azzopardi Muscat
	Objectives, expected outcomes and review of agenda	Martin Weber
Session 1. Scale and trends of health service disruptions and health system changes		
<b>Objectives 1</b>	To review the scale and trends of health service disruptions for children and mothers due to the COVID-19 pandemic	
<b>Objectives 2</b>	To review implemented health system changes concerning children and mothers in response to the COVID-19 pandemic, including digital health and telemedicine	
10:15–11:30	<p>Scale and trends of health service disruptions for children and mothers and health system changes</p> <p>Global perspective: findings from across all regions – Annie Portela</p> <ul style="list-style-type: none"> <li>• United Kingdom (England) – Steve Wyatt</li> <li>• Kazakhstan – Caroline Clarinval</li> <li>• Netherlands – Danielle Jansen</li> <li>• Romania – Ioana Pop</li> <li>• United Kingdom (Scotland) – Eileen Scott</li> <li>• Tajikistan – Zulfiya Abdusamatzoda</li> </ul> <p>Discussion of and reflections on the findings of the reviews</p>	<p><i>Moderator:</i> Ingrid Wolfe</p>
Session 2. Building resilient health systems for children and mothers for the next COVID-19 resurgences and beyond		
<b>Objective 3</b>	To share experiences among countries and establish collaboration for building resilient health systems for children and mothers during the next resurgences of COVID-19 and beyond	
11:45–12:15	<p>PANEL DISCUSSION</p> <p>Health systems changes concerning children and mothers because of COVID-19:</p> <ul style="list-style-type: none"> <li>• changes to be continued during the current crisis but discontinued thereafter;</li> <li>• changes to be institutionalized and to be continued in the long run;</li> <li>• changes to be discontinued as they did not have the desired effect and/or had unintended consequences; and</li> <li>• changes to be introduced to build resilient health systems</li> </ul>	<p><i>Moderator:</i> Martin Weber</p> <p><i>Members of panel:</i> Marius I. Ungureanu (Ministry of Health of Romania); Zulfiya Abdusamatzoda / Aminov Obidjon (Ministry of Health of Tajikistan); Eileen Scott, Public Health Scotland; and Karapet Davtyan, Clayton Hamilton, Zulfiya Pirova, Theresa Diaz/Liz Katwan and Ardita Tahirukaj (WHO)</p>
12:15–12:45	<p>Proposed framework for measuring and improving health system resilience to deliver health services to children and mothers during COVID-19 and beyond</p> <p>Questions and answers</p>	<p>Marina Karanikolos/Ingrid Wolfe Josep Figueras Marimont</p>
Next steps and closing		
12:45–13:00	Conclusion	Natasha Azzopardi Muscat

## Annex 3

### Participants

#### Member States

<b>Romania</b>	<b>Marius Ungureanu</b> , WHO National Counterpart, Ministry of Health <b>Irina Mateescu</b> , Honorary Adviser to the Minister of Health <b>Petronela Stoian</b> , Maternal and Child Health, Ministry of Health
<b>Tajikistan</b>	<b>Zulfiya Abdusamatzoda</b> , Deputy Minister of Health <b>Obijon Aminov</b> , Head of Children and Adolescent Health and Parenting Skills Improvement Unit, Maternal, Newborn, Child and Adolescent Health and Family Planning Department, Ministry of Health

#### Temporary advisers

<b>Danielle Jansen</b> Associate Professor University Medical Centre Groningen Netherlands	<b>Ingrid Wolfe</b> Institute for Women's and Children's Health United Kingdom
<b>Eileen Scott</b> Health Intelligence Principal Public Health Scotland United Kingdom	<b>Steve Wyatt</b> Head of Strategic Analytics NHS Midlands and Lancashire Commissioning Support Unit United Kingdom
<b>Peter Spilsbury</b> Director The Strategy Unit NHS Midlands and Lancashire Commissioning Support Unit United Kingdom	

#### World Health Organization

##### Headquarters

<b>Theresa Diaz</b> Coordinator Epidemiology Monitoring and Evaluation UHL	<b>Blerta Maliqi</b> Technical Officer Maternal and Child Health
<b>Elizabeth Katwan</b> Data Manager Epidemiology Monitoring and Evaluation UHL	<b>Annie Portela</b> Technical Officer Maternal and Child Health
<b>Heather Jue-Wong</b> Consultant Maternal and Child Health	<b>Aboubaker Samira</b> Medical Officer Maternal and Child Health

## **WHO Regional Office for Europe**

### **WHO European Centre for Primary Health Care**

**Zulfiya Pirova**, Technical Officer, Primary Health Care

### **European Health Systems Observatory**

**Josep Figueras Marimont**, Head of Office

### **WHO Country Office in Kazakhstan**

**Caroline Clarinval**, WHO Representative

**Marina Karanikilos**, consultant

**Laura Utemissova**, consultant

### **WHO Country Office in Romania**

**Cassandra Butu**, National Professional Officer

**Miljana Grbic**, WHO Representative

**Ioana Pop**, Consultant

### **WHO Country office in Tajikistan**

**Husniya Dorgabekova**, consultant

**Viktor Olsavsky**, WHO Representative

**Shoira Yusupova**, National Professional Officer

### **WHO Regional Office for Europe**

**Natasha Azzopardi Muscat**, Director

Division of Country Health Policies and Systems

**Caroline Brown**, Programme Area Manager,

Infectious Hazard Management, Health Emergencies Programme

**Susanne Carai**, consultant, Child and Adolescent Health and Development

**Karapet Davtyan**, Technical Officer, Data, Metrics and Analytics

**Clayton Hamilton**, Technical Officer, Digital Health

**Min Hye Park**, consultant, Child and Adolescent Health and Development

**Aigul Kuttumuratova**, Technical Officer, Child and Adolescent Health

**Oleg Kuzmenko**, Technical Officer, Sexual and Reproductive Health

**Olga Pettersson**, Programme Assistant

Child and Adolescent Health and Development

**Ida Stromgren**, Programme Assistant, Sexual and Reproductive Health

**Ardita Tahirukaj**, Technical Officer, Emergency Operations, Health

Emergencies Programme

**Martin Weber**, Programme Manager, Child and Adolescent Health and

Development

## **Interpreters**

**Ion Ciobanu**, Romania

**Ioanna Novak**, Romania

**Tatinaa Polunina**, Russian Federation

**Liudmila Yurastova**, Russian Federation

## The WHO Regional Office for Europe

The World Health Organization (WHO) is a specialized agency of the United Nations created in 1948 with the primary responsibility for international health matters and public health. The WHO Regional Office for Europe is one of six regional offices throughout the world, each with its own programme geared to the particular health conditions of the countries it serves.

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