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Childcare-policy responses in the COVID-19 pandemic: Unpacking cross-country variation

From mid-March 2020, childcare services and schools were closed around the globe in the fight of the COVID-19 pandemic. This situation, unprecedented in the history of modern welfare states, brought striking cross-country differences in pandemic childcare-policy responses. They varied particularly in the re-opening phase – both in being more lenient or strict, and in being universal or selective. This article presents a conceptual framework that allows to unpack and classify variations in the design of immediate childcare-policy responses to COVID-19, which became (primarily) driven by public-health-related goals and therefore transverse existing conceptualisations. We argue that specific responses are resulting from a country-specific combination of pandemic prevention strategy (either focused on high-risk groups or the whole population), and childcare-related policy concerns (e.g., educational goals, or work-family reconciliation). The distinct childcare-policy responses are then developed, and empirically illustrated on the basis of data collected for 28 European countries. This provides a basis for future research into the cross-country variation of responses, as well as gender and social consequences of the COVID-19 pandemic.

Keywords: COVID-19; pandemic; policy responses; childcare; school; lockdown

Introduction

One of the many ways in which the current COVID-19 pandemic has been unique in the history of modern welfare states is the closure of early childhood education and care services (ECEC) and schools, which took place in most countries around the globe as from mid-March 2020. In some countries, ECEC/schools' re-opening started in May or June, while

others opted for a prolonged closure until the new school year. With care and home-schooling responsibility thus being 'shifted fully onto parents' (Yerkes *et al*. 2020: 4), these closures have raised concerns about the increased risk of social exclusion and growing social inequalities in children's educational opportunities (OECD 2020a), as well as about growing work-family conflicts and gender inequalities. German sociologist Allmendinger drew a looming picture in early May, warning that the Corona crisis might set back gender-equality progress by no less than 30 years.[1] In this respect, emerging evidence shows a nuanced view: working mothers are indeed at higher risk of being overburdened with the re-familiarised care work, shortening working hours, even quitting their job, or being dismissed (Czymara *et al.* 2020; Andrew *et al.* 2020). Yet women are also overrepresented amongst 'key workers', and fathers have increased their share of care- and housework during lockdowns, e.g. in the US (Carlson *et al.* 2020) and the Netherlands (Yerkes *et al.* 2020). Without doubt, both working mothers and fathers are under increased pressure under COVID-19 vis-à-vis people without care obligations – with national ECEC/schools-closure 'strategies' playing a vital role in their ability to (continuously) work, especially as the greater illness risk for elderly is limiting other care alternatives such as grandparents.

Against this backdrop, there is a need to understand national crisis responses and their implications for various groups in society. The cross-country variation in immediate crisis responses is indeed striking (Capano *et al.* 2020; Yerkes *et al.* 2020), as in the novel COVID-19 pandemic situation the knowledge base required to design interventions has been highly uncertain, while governments needed to react to an urgent, and severe crisis (t'Hart et al. 2001). Such conditions of uncertainty and urgency particularly applied to decisions regarding 'lockdown' – including ECEC/schools' closures – due to lacking evidence-base on disease

[1] In the German TV talk show *Anne Will* on 3 May 2020.

transmission, and its severity for children that is still highly debated (Mallapaty 2020). Countries' responses have differed widely in type and timing, going far beyond the categorisation of keeping public ECEC and primary schools 'opened' (e.g., Sweden) or 'closed' (e.g., Italy) (UNESCO 2020; OECD 2020b): Rather, many countries exhibit hybrid approaches, varying not only from more lenient to strict, but also from universal to selective closures/re-openings, i.e. allowing certain groups to keep access or re-enter earlier. In such an uncertain situation, countries' approaches may be affected by factors that go beyond public-health concerns (e.g., specific regime paths, government constellations) and have different implications for the groups targeted (or not), and therefore gender and social inequalities. Yet, until now, such patterns are far from evident and additional research is needed. Importantly, we first need to *conceptualise* the similarities and differences in immediate ECEC/schools' closures to allow for future research into the factors that account for distinct policy choices, as well as their effects.

This contribution, therefore, aims to explore cross-country variations in the closures and re-openings of ECEC services and (lower grades of) primary schools (hereafter called: *childcare-policy responses*), which occurred in relation to the first phase of immediate crisis response. It presents a conceptual framework that allows to 'unpack the design' (Capano et al. 2020: 3) of immediate childcare-policy responses under COVID-19 and explore their cross-country variations. The focus is on education- and care-services up to age 12 approximately, as during that age the need for childcare and parents' guided home-schooling is significantly increased, which is also reflected in out-of-school-hours care being typically provided up to age 12 (Plantenga and Remery 2013). We argue that specific childcare-policy responses are resulting from the country-specific combination of pandemic prevention strategy and childcare-policy concerns. These theoretical considerations are supported by a summative overview of modalities of ECEC/school closures and re-openings in European

countries, with typical country-cases being empirically illustrated. The presented framework provides a basis for future research into the gender and social consequences of the COVID-19 pandemic.

Childcare-policy responses under COVID-19

It bears repeating that while there is ample analytical and theoretical ground to comparatively investigate childcare policies, the situation under COVID-19 is unique and novel. Existing conceptualisations – such as classifying childcare policies by their type of familialism (Leitner 2003), facilitation of parents' capabilities (Yerkes and Javornik 2018), or inclusiveness in terms of eligibility (Dobrotić and Blum 2019) – may indeed contribute to unpacking cross-country variations in childcare-policy responses under COVID-19. However, the global closure of ECEC/schools – and therewith the restriction of fundamental social rights – is unprecedented in the history of modern welfare states. Indeed, childcare-policy responses in the pandemic situation transverse previous conceptualisations, because they became (primarily) driven by public-health-related goals, which are usually not in their core focus. As detailed below, countries chose a specific pandemic-prevention strategy which prompted the initial 'shock' response also in childcare/educational policies. After those initial responses, countries began to balance – in different pace and patterns – public-health with other, sometimes competing goals and concerns more specific for childcare- and education-systems (work-family reconciliation, equal educational opportunities, etc.) (cf. Moss and Kamerman 2011; Scheiwe and Willekens 2009).

Pandemic strategies and balancing goals in childcare-policy responses

Against the new and uncertain risks of the Coronavirus, countries chose different prevention strategies. Generally, public-health research distinguishes between the high-risk (i.e. targeted) and the population approach to prevention (Rose 2001). While the first strategy targets high-

risk individuals (e.g., 'the elderly' for COVID-19) and avoids generalised interventions, the second strategy addresses the whole population (e.g., through curfews and social-distancing rules for COVID-19). There can also be mixed approaches which combine both strategies. The *high-risk approach* may fulfil its goals of protecting targeted groups, but its prevention potential is lower, and it risks to be exclusionary (cf. Rose 2001). The *population approach* is generally associated with a stronger prevention potential, but also a higher risk of the 'prevention paradox', where 'large overall health gains for whole populations [...] might offer only small advantages to each individual' (WHO 2002: 147).

These two approaches were also reflected in earlier school closures and other interventions aimed at controlling influenza and previous coronavirus outbreaks (e.g., SARS). Yet there were inconclusive results of epidemiological and public-health research on the effectiveness and prevention potential of different 'school closure practices', e.g., 'national, regional, local, or reactive closure of individual schools' or 'less disruptive social distancing interventions' (Viner *et al.* 2020: 397). As Cronert (2020: 2) argued, the timing of school closures reflects government's choice of prevention policy, namely between 'a *precautionary* strategy, through which the entire population is led to make sacrifices for the sake of vulnerable individuals – which would imply a rapid school closure – or a more *proportional* strategy, where school closures are postponed in favour of less disruptive measures, such as interventions to isolate individuals that are vulnerable or infected'. Yet while different school (and ECEC) closure strategies have been linked to general pandemic prevention strategies in the literature, the 'less drastic', 'social'-distancing interventions received little attention in public-health research (Viner *et al.* 2020). Policy-oriented studies have focused on timing (Cronert 2020), yet the exact types of closures and decisively also *re-openings* are yet to be specified. This is precisely where our research interest sets in, as integrating the public-health

perspective with the childcare-policy perspective can lead to a deeper understanding of the responses, especially from a care perspective.

Indeed, a pure population approach is more likely to translate into the 'full closure' of ECEC/schools, while the high-risk approach will tend to keep these services open. In between, however, there is room for hybrid approaches that aim at balancing public-health and education/childcare-related concerns in different ways (Figure 1). On the one hand, the closure of ECEC/schools as an important measure for pandemic prevention and protection of children's and families' health. On the other hand, the concern that ECEC/school closures bring about adverse risks, such as rising work-family tensions, the risk of poor nutrition among children, or a broader 'education gap' between advantaged and disadvantaged children (OECD 2020a; Fisher *et al.* 2020). There is thus strong ambiguity in the chosen childcare-policy responses, and since the first closures around mid-March, it has been increasingly at the centre of national debates how to balance public-health with other, more education- and childcare-specific goals.

Regarding the latter, Scheiwe and Willekens (2009: 4) distinguish between two main *motives* behind the ECEC development in Europe – 'a need of public education' and 'reconciliation of care work and paid work' – connected to different notions on gender and social relations. The *educational model* builds on both the idea of young children's need for public education and a need to overcome social inequalities in children's educational opportunities; it thus tends towards universal coverage of children. The *work-care reconciliation model* was built on the need to protect children of working mothers (early 19th century) and, more recently, to enable parents (mainly mothers) to enter the labour market; it therefore often includes a gender-equality orientation. Bacchi (1999) also identifies a specific *welfare* approach of ECEC development, which targets families 'in need' (e.g., through ECEC subsidies for low-income families), and is closely related to the goal of mitigating

social inequalities. The latter approaches tend to be more selective, i.e. primarily focused on those in need of care (e.g., children with both parents/single parent in employment). As usually with ideal types, these models are not mutually exclusive; they can, however, be used for heuristic purposes, i.e. as 'ideal types from which particular sets of organizational and institutional principles can be derived and from which different kind of questions and problems follow' (Scheiwe and Willekens 2009: 4). As discussed below, they can be indeed helpful for conceptualising different childcare-policy responses under COVID-19, and their variation over time.

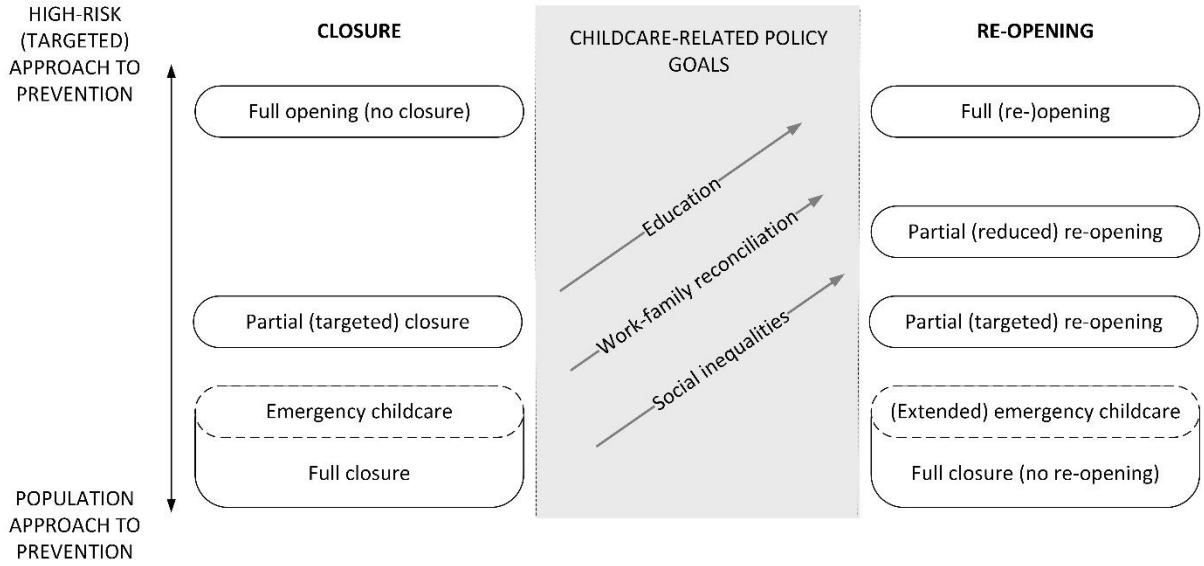
Against that backdrop, we argue that the immediate 'crisis' childcare-policy responses were related to the chosen pandemic prevention strategy in a country, either high-risk (targeted) or population approach (Figure 1). Moreover, closure and even more so re-opening responses are reflective of how the public-health goals have been balanced with the partly conflicting 'core' childcare-policy concerns. Responses within this framework are thus theoretically-informed, yet – as discussed above – there is a lack of theoretical assumptions on pandemic, public-health driven childcare-policy responses. Therefore, the conceptual development also needs to be informed by the variety of empirical realities. We collected data on ECEC/school closures and re-openings modalities in the March-July 2020 period in 28 countries of the European Economic Area[2] (Appendix 1).

The distinguished 'pandemic childcare-policy responses' should be seen as ideal-types that may empirically exist in hybrid forms, and also change over time. Such a conceptual approach allows to unpack the *patterns* of responses, but also their *pace*. Namely, we can assume that pure high-risk- to hybrid-strategies to prevention opened more 'space' for specific childcare-policy goals than the hybrid- to whole-population-strategies – as children are not amongst the high-risk groups of COVID-19 (as they are for other diseases, which

[2] For Cyprus, Liechtenstein, and Malta no reliable data could be identified.

would make school closures more likely also under high-risk approaches). The realization that the pandemic would be 'here to stay' for some time, and of the adverse effects of extended ECEC/school closures (e.g., child welfare, social isolation, nutritional problems, economic harms; Viner *et al.* 2020), have slowly opened space for specific childcare-policy goals also in countries that initially opted for whole-population strategy and fully closed ECEC/schools. The result was a higher frequency of lenient responses in re-opening phases, but also a greater diversity of re-opening approaches. Next, we will detail and empirically illustrate the immediate policy responses displayed in Figure 1.

Figure 1. The pandemic childcare-policy responses



Unpacking the policy responses of closures and re-openings

To unpack the defining lines of pandemic childcare-policy responses, it is not sufficient to ask whether ECEC/schools were 'closed' or remained 'open'. Instead, there is a complex and partly interrelated set of characteristics that form different and more hybrid policies. First, the responses often show differences between ECEC services, primary schools, and secondary schools. Although such different regulations are relevant, it is their specific *sequence* that

forms a specific childcare-policy response (e.g., first re-opening for younger vs older pupils vs 'critical' years in educational process). Second, childcare-policy responses have differed decisively between ECEC/school closures and their re-openings. Therefore, we can identify distinct responses of 1) closure, and 2) re-opening (Figure 1), which vary not only from a lenient (fully-open) to strict (fully-closed) approach, but also in their universal to selective nature. Namely, asking *for whom* ECEC/school was closed or (re-)opened can help to uncover childcare-related priorities and inequalities, as more often than not, certain groups kept access, or access was available to them earlier or more comprehensively.

Closures

In the first state of immediate crisis reaction, the influence of public-health concerns and different prevention strategies over childcare-policy responses was strong. Under the pure *high-risk approach*, we could find a targeting of high-risk groups in elderly-care homes, while ECEC/schools remain *open*. Yet we see an integration of high-risk prevention *into* childcare-policy responses through less 'drastic' interventions, e.g. stricter rules of attention (e.g., stay-at-home rules in case of mild symptoms such as blocked nose) or offering alternative distance-schooling for children at-risk. With Sweden (see also Pierre 2020) and Iceland there are two European countries which exhibit such a pure high-risk response; while Finland closed primary schools but kept ECEC open (Appendix 1). The strategy is lenient, but carries exclusionary risks as e.g. children (in families) with pre-existing conditions cannot attend ECEC/school.

Vice versa, under the *population approach*, strict containment policies (see stringency index in Appendix 1) translate into ECEC/school *closures*. These closures, witnessed in many countries, have tended to be full (and in that sense, universal). Yet they typically uphold 'emergency childcare' for key workers (e.g., parents working in hospitals, food supply,

police). This reflects the dominance of the public-health focus ('keeping the system functioning'); however, there is also variation (e.g., in Germany, the federal states applied narrower or wider definition of 'key workers').

Then there are 'hybrid' forms that consist of *partial (and targeted) closures*, aiming to include other (childcare policy) goals. In a number of countries (e.g., Austria, Belgium, Latvia), we find indications of a work-family perspective as ECEC remained open for 'parents with no other care option' (Appendix 1). Still, with strict containment policies in place, where childcare remained (partially) opened, parents were typically encouraged to use it only if absolutely necessary. This was reflected in low participation rates (e.g., in Austria only 1-2% in March/April 2020; see Der Standard 2020). Full and partial 'closures' alike have been contentious, due to their potentially adverse effects on the economy, parents' employment, children's education and health, or vulnerable grandparents providing childcare (OECD 2020a; Viner *et al.* 2020).

Re-openings

Under the re-openings, the variety of childcare-policy responses increased, as these have developed into more long-term strategies. In pandemic prevention terms, countries have been moving from 'the hammer' (immediate closure to slow the infection) towards 'the dance' (Pueyo 2020) of lifting confinements or re-applying them in a more targeted way to keep the virus under control. In re-opening, childcare-policy responses have become increasingly reflective of differing priorities and perspectives. They could also be related to the Coronavirus incidence in a country (e.g., school openings being dependent on low infection numbers), yet immediate responses do not seem entirely determined by such 'problem pressures' (cf. France re-opening schools in May despite comparatively high infection rate vs Ireland opting for school closure until the new school year).

There are countries where immediate childcare-policy responses in the re-opening stage remained dominated by the population-approach and public-health concerns. Accordingly, those responses are all universal in style and rather strict. Strictest countries (e.g., Italy) have kept ECEC/schools *closed* at least until the end of the school year (Appendix 1). Others have first *extended their emergency mode* by applying a broader definition of 'key workers' to include more children (e.g., Germany), or allowed for individual face-to-face teaching activities (e.g., Estonia, Hungary).

Vice versa, re-opening could be lenient and consist of *full re-opening to a regular mode* for (in principle) all children. In some cases, this was the 'immediate' re-opening response (e.g. Denmark, Finland, Greece; Appendix 1). Such a 'quick' reopening may have happened because countries shifted towards a high-risk approach (e.g., in the face of increasing economic costs of 'lockdown'), or infections decreased at rates that allowed them a lenient approach. Also, balancing with childcare-specific goals can be important here. For example, Denmark's early re-opening of ECEC/schools by 15 April was linked to the care needs of working parents (Tagesschau 2020).

However, many countries have not moved from some form of closure to 'full re-opening'; rather they move there through (a sequence of) partial re-opening. This more hybrid, mixed type of ECEC/schools' re-opening evokes further research interest, as different childcare-specific perspectives become very visible. The interesting difference between responses here is not on the lenient to strict end as those are all forms of *partial re-opening*, but on the selectivity dimension of *who* gains (earlier) access. First, there is a universal and more lenient response: Countries here have gradually re-opened ECEC/schools for all children, but in a *partial (reduced) re-opening* that is not primarily care-focused and aims at lowering contacts and enforcing 'social'-distancing rules (e.g., through weekly/daily shifts with a maximum number of pupils in class, e.g. primary schools in Austria and Belgium, in

Luxembourg also ECEC; Appendix 1; OECD 2020b). Second, there are *partial* (*targeted) re-openings*, where certain groups of children were prioritized (e.g., youngest children or dual-earners, children-at-risk). We identified four goals at the conceptual level, which go along with different targeted re-openings and childcare possibilities:

(1) public-health focused, where only older pupils are allowed back to class, who can keep 'social'-distancing rules, while ECEC services remain closed;
(2) education-focused, where transition years are allowed back to class (e.g., older students taking school-leaving exams, younger children in last pre-school/primary school year);
(3) social-inequality focused, where 'disadvantaged' children gain earlier access (e.g., from families social-assistance receivers, or asylum seekers);
(4) work-family focused, where ECEC and (lower classes of) primary schools re-opened first (i.e., before secondary schools), or certain parent-based criteria are developed allowing earlier access (e.g., employed single parents, dual-earners).

While the latter (4) response may be the opposite of the (1) public-health focus; other foci can also be combined (e.g., Germany), but concrete indicators need to be developed to disentangle those approaches and classify (hybrid) cases based on empirical data.

Finally, to fully grasp different policy responses, we also need to consider their timing (e.g., starting date and length of closures), and sequence (e.g., re-opening starting with a certain response, then moving to another response). Moreover, in some countries (e.g., Germany, UK, Spain), at least parts of the closure and re-opening responses were made on a regional basis, so this variety must be taken into account. Not least, the latter phenomenon is of growing importance for future research, as pandemic policies, in general, have been moving from 'general lockdowns' to the targeted intervention into local outbreaks.

Outlook

The presented conceptual framework can provide a basis for looking closer into the empirical reality of childcare-policy responses to COVID-19, and investigating their drivers and effects.

Our overview of responses identified lenient to strict, and universal to targeted approaches in European countries (Appendix 1). Yet the hybrid policy approaches – particularly reflective of both public-health and 'core' childcare-policy goals – will require further 'unpacking' through developing detailed indicators able to grasp their prevalence and sequencing across countries. Moreover, when moving from high-risk to population-strategies in pandemic prevention (and therewith: to fuller ECEC/school closures), the need for 'pandemic parental leaves' and benefits increases. While it went beyond this article, it will be crucial to consider *both* 'main pillars' of childcare policies, i.e. how ECEC/school closures were integrated into a coherent approach (or not) with accompanying (pandemic) leaves and/or benefits.

As regards countries' combinations of pandemic prevention strategies with childcare-specific goals, the causal mechanisms behind those choices have yet to be uncovered. Therein, it will not only be important to investigate whether countries followed traditional childcare-regime paths (e.g., Leitner 2003) in crisis responses, but also whether in the long run, the COVID-19 crisis triggered the introduction of new (or even old) ideas in childcare policies. Not least, besides their potentially adverse effects (e.g., OECD 2020a), there is an indication that in some countries (e.g., Canada), the pandemic raised the importance of childcare for the economy and gender equality, putting it higher on the political agenda.

Finally, investigating unequal effects of pandemic childcare-policy responses will require asking whether they were also shaped by 'blindspots towards the vulnerabilities of certain population segments' (Capano *et al.* 2020: 1). Blindspots of childcare policies could

result, for instance, from mentioned exclusionary tendencies within high-risk approaches (e.g., excluding children with pre-existing conditions from ECEC/schools), or from varying 'inclusiveness' (Dobrotic and Blum 2019) of pandemic childcare policy eligibility (e.g., children of non-working parents ineligible for ECEC; self-employed ineligible for pandemic leave benefits). Childcare policies were ill-prepared for COVID-19, and short-term responses often bridged the way towards developing longer-term solutions for integrating *all* children in the 'new normal' ECEC/school under pandemic conditions. Future 'waves' of COVID-19 (or other pandemics) will bring about new closure/re-opening sequences that are becoming increasingly managed by regions and municipalities according to local infection numbers. For future strategies, an understanding of the initial responses and their effects can contribute to policy learning. Furthermore, the immediate childcare-policy responses to COVID-19 may serve as a burning glass to see which priorities countries set during the closures/re-openings, and therewith how entrenched and enduring different ideas (e.g., work-family reconciliation) are in national childcare policies in times of severe crisis.

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References

Andrew, A., Cattan, S., Dias, M.C., Farquharson, C., Kraftman, L., Kritukova, S. Phimister, A. and Sevilla, A. (2020) *The Gendered Division of Paid and Domestic Work under Lockdown*, IZA DP No. 13500, Bonn: IZA.

Bacchi, C. (1999) *Women, policy and politics. The construction of policy problems*, London: SAGE.

Capano, G., Howlett, M., Jarvis, D.S.L., Ramesh, M. and Goyal, N. (2020) 'Mobilizing policy (in)capacity to fight COVID-19: Understanding variations in state responses', *Policy and Society*, 39(3): 285-308.

Carlson D., Petts R., Pepin J. (2020) 'US Couples' Divisions of Housework and Childcare during COVID-19 Pandemic', SocArXiv. May 6. doi:10.31235/osf.io/jy8fn.

Cronert, A. (2020) 'Democracy, State Capacity, and COVID-19 Related School Closures'. Working Paper, doi: https://doi.org/10.33774/apsa-2020-jf671-v4.

Czymara, C.S., Langenkamp, A. and Cano, T. (2020) 'Cause for concerns: gender inequality in experiencing the COVID-19 lockdown in Germany. European Societies, doi: https://doi.org/10.1080/14616696.2020.1808692.

Der Standard (2020) 'Verwirrung um Öffnung der Kindergärten nach Ostern', 8 April. Available from: https://www.derstandard.at/story/2000116673492/verwirrung-um-oeffnung-der-kindergaerten-nach-ostern [Accessed 24 July 2020].

Dobrotić, I. and Blum, S. (2019) 'Inclusiveness of parental-leave benefits in twenty-one European countries: Measuring social and gender inequalities in leave eligibility', *Social Politics*, https://doi.org/10.1093/sp/jxz023

Fisher, J. Languilaire, J.-C., Lawthom, R., Nieuwenhuis, R., Petts, R.J., Runswick-Cole, K. and Yerkes, M. (2020) 'Community, work, and family in times of COVID-19', *Community, Work & Family* 23(3): 247-52.

FRA (2020) *Coronavirus pandemic in the EU - Fundamental Rights Implications – Bulletin 1-4*, https://fra.europa.eu/en/products/search?pub_type%5B%5D=1289&pub_by%5B%5D=81&lang%5B%5D=en&combine=coronavirus&sort_by=field_fra_published_at_value&sort_order=DESC [Accessed 25 August 2020].

Hale, T., Webster, S., Petherick, A., Phillips, T. and Kira, B. (2020) *Oxford COVID-19 Government Response Tracker*, https://www.bsg.ox.ac.uk/research/research-projects/coronavirus-government-response-tracker [Accessed 26 August 2020].

Leitner, S. (2003) 'Varieties of familialism: The caring function of the family in comparative perspective', *European Societies* 5(4): 353-75.

Mallapaty, S. (2020) 'How do children spread the Coronavirus? The science still isn't clear', *Science*, 7 May 2020.

Moss, P. and Kamerman, S. (2011) 'Introduction', in S.B. Kamerman and P. Moss (eds.), *The politics of parental leave policies: Children, parenting, gender and the labour market*, Bristol: Policy Press, pp. 1-14.

OECD (2020a) *Combatting COVID-19' effect on children*, https://read.oecd-ilibrary.org/view/?ref=132_132643-m91j2scsyh&title=Combatting-COVID-19-s-effect-on-children [Accessed 24 July 2020].

OECD (2020b) *Tackling Coronavirus (COVID-19): Country Policy Tracker*, https://www.oecd.org/coronavirus/country-policy-tracker/ [Accessed 24 July 2020].

Pierre, J. (2020) 'Nudges against pandemics: Sweden's COVID-19 containment strategy in perspective', *Policy and Society* 39(3): 478-93.

Plantenga, J. and Remery, C. (2013) *Childcare services for school age children*, Luxembourg: Publications Office of the European Union.

Pueyo, T. (2020) 'Coronavirus: The Hammer and the Dance', *Medium*, 19 March.

Rose, G. (2001) 'Sick individuals and sick populations', *International Journal of Epidemiology* 30(3): 427-32.

Scheiwe, K. and Willekens, H. (2009) *Child Care and Preschool Development in Europe: Institutional Perspectives*, Hampshire: Palgrave Macmillan.

Tagesschau (2020) 'Schulöffnungen in EU', 15 May, https://www.tagesschau.de/ausland/schuloeffnungen-101.html [Accessed 24 July 2020].

t'Hart, P., Heyse, L. and Boin, A. (2001) 'New trends in crisis management practice and crisis management research: Setting the agenda', *Journal of Contingencies and Crisis Management* 9(4): 181-88.

UNESCO (2020) *Data from: COVID-19 impact on education* [dataset]. Available from: https://en.unesco.org/sites/default/files/covid_impact_education.csv [Accessed 24 July 2020].

Viner, R.M. *et al.* (2020) School closures and management practices during coronavirus outbreaks including COVID-19: a rapid systematic review, *The Lancet* 4(5): 397-404.

WHO (2002) *The world health report 2002: Reducing Risks, Promoting Healthy Life*, https://www.who.int/whr/2002/chapter6/en/index1.html [Accessed 24 July 2020].

Yerkes, M. *et al.* (2020) 'Intelligent lockdown, intelligent effects? The impact of the Dutch COVID-19 'intelligent lockdown' on gendered work and family dynamics among parents', SocArXiv. July 21. doi:10.31235/osf.io/uq2pf.

Yerkes, M. and Javornik, J. (2019) 'Creating capabilities: Childcare policies in comparative perspective', *Journal of European Social Policy* 29(4): 529-44.

Appendix 1: Overview of ECEC/primary school closures and re-openings (time-period: mid-March until July 2020/end of the school year)

Country	Stringency on 1 April	Closures of ECEC/Primary schools (PS)		Stringency at re-opening	Re-openings of ECEC/Primary schools (PS)	
		Start	Modality		Start	Modality
Austria	85	20 March	Targeted closure, open for: • key workers • working parents without other care option (attendance discouraged via additional criteria; e.g., parents without possibility to work from home)	65	ECEC 4 May PS 18 May (graduating years 2 weeks earlier)	ECEC: Targeted re-opening (earlier access for, e.g., dual-earners, employed single parents, last preschool year) PS: Reduced re-opening (part-time, i.e. 2-3 days per week)
Belgium	81	16 March	Targeted closure, with ECEC (nurseries) open for: • key workers • working parents without other care option	75	ECEC 2 June PS 8 June	ECEC (nurseries): Full re-opening PS: 1) Targeted re-opening (first and final PS years); 2) from 18 June reduced re-opening (smaller classes, part-time)
Bulgaria	71	16 March	Full closure, without exceptions	56	ECEC 22 May PS -	ECEC: Full re-opening by 1 June (parents encouraged to keep children at home) PS: Closed until the end of the school year, yet: • in summer months an option to provide additional education for 'disadvantaged' children who could not participate in e-learning
Croatia	96	16 March	Targeted closure, open for: • key workers • working parents without other care option	89	11 May	ECEC: Targeted re-opening (dual-earners or employed single parents; parents encouraged to keep children at home); from 25 May full re-opening PS: Targeted re-opening (youngest children in grade 1-4); until 25 May attendance discouraged via additional criteria (e.g., dual-earners, employed single parents)
Czechia	82	11 March (PS)	ECEC: No (generally ordered) closure, yet in practice, most facilities closed PS: Full closure, without exceptions	45	PS: 25 May (graduating years 11 May)	PS: Targeted re-opening (earlier re-opening for 'first-level' classes, i.e. ages 6-11); optional attendance (max. classes of 15)
Denmark	72	16 March	Full closure, emergency care organised	69	15 April	Full re-opening of ECEC/PS (until about age 12; reduced group sizes)
Estonia	78	16 March	ECEC: No (generally ordered) closure, in practice parents encouraged to keep children at home and most facilities closed; emergency care organised PS: Full closure	22	-	PS closed until the end of the school year, yet: • in the last two weeks (since 15 May), individual or small group face-to-face teaching activities allowed (max. 10 children); teachers' decision who needs to attend to receive individualised support
Finland	60	18 March	ECEC: No closure (parents advised to keep children at home)	51	14 May	Full re-opening (grades 1-9); distance learning continued for children in the COVID-19 risk group

			PS: Full closure, with emergency care for: • Key workers with children in grades 1-3			
France	88	16 March	Full closure, with emergency care for: • Underage children of medical staff	77	11 May	Targeted re-opening (prioritizing instruction for children ages 5, 6 and 10; classes capped at 10-15 pupils); from 22 June full-reopening
Germany	77	16 March	Full closure, with emergency care: • Decision over emergency care made on federal state level, mostly covering only key workers, rarely working parents without other care option	72	ECEC: (June) PS: 4 May	ECEC: Re-opening type and timing differed between federal states, but mostly 1) targeted and then 2) reduced 'for all' (beginning in June) PS: Targeted and reduced re-opening (starting with graduating years, incl. last year of PS, and only few hours per week); details set by federal states (e.g., first full PS re-opening in Baden-Wuerttemberg on 29 June)
Greece	84	11 March	Targeted closure, open for: • Working parents	55	1 June (higher schools since 11 May)	ECEC: Full re-opening (smaller groups) PS: Full re-opening (max. 15 students); distance learning continued for children in the COVID-19 risk group (including household member)
Hungary	77	16 March	Full closure, in ECEC emergency care provided since end of April for: • Working parents	63	ECEC: 25 May PS: -	ECEC: Full re-opening (in Budapest from 2 June) PS: Closed until the end of the school year (only opening for individual consultation, beginning 2 June)
Ireland	85	12 March	Full closure, with emergency care for: • Key workers (with children up to 10 years and no other care option)	39	ECEC: 29 June PS: -	ECEC: Full re-opening (children and carers in small, constant groups - 'play-pods') PS: Closed until the end of the school year, yet summer programmes for vulnerable children expanded
Italy	92	5 March	Full closure	56	-	ECEC: Closed until the end of the school year; yet in some regions summer camps from 1 June for children above 36 months PS: Closed until the end of the school year
Latvia	66	13 March	ECEC: Targeted closure, open for: • parents without other care option (max. 13 children per group) PS: Full closure	60	ECEC: 12 May PS: -	ECEC: Full re-opening PS: Closed until the end of the school year
Lithuania	81	16 March	ECEC/PS: compulsory 2-week holidays as a precautionary measure (16-30 March) ECEC: No (generally ordered) closure, yet: • Distance-learning recommended for preschool and pre-primary education	71	25 May	ECEC: Full re-opening PS: Re-opening *possible*, schools decided between re-opening or continuing remote mode; only 19% of PS re-opened in June 2020

			• Some facilities operated and provided services for key workers (i.e., doctors, police officers), upon municipal decision (limited group size) PS: Full closure (from 30 March)			
Luxembourg	80	16 March	Full closure, with emergency care for: • Key workers	44	25 May	1) Reduced re-opening: children up to age 12 returned (small groups in nurseries - max. 5, and rotation of shifts in PS with part-time attendance); 2) Full re-opening: since 29 June groups joined again (vulnerable students/teachers advised to stay at home, with individual support if needed)
Netherlands	80	16 March	Full closure, with emergency care for • Key workers	69	11 May	1) Reduced re-opening (part-time) 2) Full re-opening from 8 June
Poland	81	16 March	Full closure, without exceptions	83	ECEC: 6 May PS: 25 May	ECEC: Full re-opening (limited group size), with final decision being made on local/facility level; PS: Targeted re-opening for youngest children (grades 1-3), with voluntary attendance; consultations for grade 8
Portugal	82	16 March	Full closure, with emergency care for: • Key workers	71	ECEC: 1 June PS: - (14 April for high school)	ECEC: Full re-opening, with hygiene/distancing measures PS: Closed until the end of the school year
Romania	87	11 March	Full closure, without exceptions	51	ECEC: 15 June PS: -	ECEC: Reduced re-opening (limited group size, limited hours) PS: Closed until the end of the school year; yet students with national exams (grade 8 and 12/13) returned for 2 weeks (2-12 June)
Slovakia	75	16 March	Full closure, with local decisions over emergency care for: • Key workers (e.g., in Bratislava)	69	1 June	ECEC: Full re-opening (max. 15 children in group) PS: Targeted re-opening for lower grades (0-5), yet decision over re-opening made on school-level; voluntary attendance (max. 20 children in group); from 22 June full re-opening
Slovenia	90	16 March (nurseries: 23 March)	Full closure, without exceptions, yet: • Local authorities asked to provide individual care at home for children of key workers (e.g., provided in Ljubljana through a volunteer-system)	42	18 May	ECEC: Full re-opening; although until 1 June parents encouraged only to bring children if no other care option; from 1 June also return to full group sizes PS: Targeted re-opening in phases: first grades 1-3; from 25 May grade 9, and grade 4-8 children 'at risk' (e.g. negative grades, need for individual support); from 1 June grades 4-5; from 3 June grades 6-8

Spain	85	11 March	Full closure	39	ECEC: 25 May PS: -	ECEC: Targeted and reduced re-opening of nurseries with variation across regions (less hours, smaller groups, prioritizing working parents) PS: Variations across regions, but generally closed until the end of the school year
Sweden	41	/	No closure	39	/	/
Iceland	54	/	No closure	46	/	/
Norway	80	13 March	Full closure, with emergency care for: • Key workers	70	ECEC: 20 April PS: 27 April	ECEC: Full re-opening PS: Targeted re-opening (first the youngest children between ages six and ten); max 15 children per "cohort"; from 11 May full re-opening
UK	80	23 March	Full closure, with emergency care for: • Key workers	68	(June)	Re-opening type and timing differed between nations (e.g., targeted re-opening in England since 1 June for pre-school children, reception, years 1 and 6 vs. closed until the end of the school year in Scotland)

Notes: Cyprus, Liechtenstein, and Malta are not included as no reliable data could be identified at the time of writing; **Stringency index (SI):** The Oxford Stringency Index is a composite measure of 9 different containment policy indicators (e.g., workplace closing, restrictions on gathering size, stay-at-home requirements); with a value from 0 to 100 (100=strictest). Data here refer to 1 April for the closures, and the first date of re-opening of ECEC, PS, or both. For the closures 1 April was chosen, as ECEC/PS closures were often taken as one of the first contingency measures, whereas others (e.g., closing shops and restaurants, limiting meeting size etc.) followed in the days shortly after, but on 1 April, none of those measures had been lifted in the countries. In the cases of Sweden and Iceland (the only two cases where neither ECEC nor PS were closed), SI for the date of the secondary-school re-opening is indicated (in Sweden 15 June; in Iceland 4 May); for the countries where ECEC/PS remains closed until the end of the school year, the stringency index refers to 1 July.

Sources for data: for ECEC/school closures FRA (2020); OECD (2020) and UNESCO (2020); for Stringency index Hale *et al.* (2020)