**Data Availability**

In what follows, I document the data availability, observed policy situation and likely action/amount of work needed to achieve ‘completeness’ for the following policy types:

Differentiated Policies:

* Lockdown
* Closure and Regulation of Schools

Unitary policies:

* Mask wearing
* Restrictions on Mass Gatherings
* Health Testing
* Health Monitoring

To summarize, it would appear that with relatively little additional work, it should be possible to get complete date for lockdown, closure and regulation of schools, mask wearing and restrictions on mass gatherings. Most of the additional amount of work appears to come from getting the Switzerland data up to speed for these policies, especially for its mask wearing policies, though some additional data gathering also needs to be done for the other countries.

Given the time constraints however, I propose that we proceed with the following strategy --- ask the RAs to prioritize getting Lockdown and Restrictions of Mass Gatherings policies complete first given that these are relatively ‘complete’, and then work on getting the closure and regulation of schools and mask wearing policies up to date.

Lockdown: 42 policies in total

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action Needed for Completeness** |
| Germany | 9 Provincial level policies coded for 5 provinces ("Bavaria", "Hesse", "North Rhine-Westphalia", "Saarland", "Saxony-Anhalt"),  no national level policies | Lockdown policies implemented at the provincial level | Follow up with Germany team to check as to the status of coding the policies in other provinces, should they exist |
| Switzerland | N/A | From Wikipedia: “On 20 March, the government announced that no lockdown would be implemented, but all events or meetings over 5 people were prohibited. Economic activities would continue including construction” --- we have not coded this ‘non-lockdown’ policy in the data. See below for information on mass gathering polices | “Complete” |
| Italy | 2 national level policies, and provincial level policies for (Campania, Calabria, Lazio, Lombardy  Note some of these policies are miscoded as quarantine | Italy imposed a nation-wide lockdown on March 10 with updates noted on March 22 and April 26.  Provincial level policies on lockdowns were imposed before March 10.  No data yet however, on the lifting on the lockdown, which clearly has happened --- indeed in another policy about masks, the description notes : “On April 26th, the Italian government announces that, after the lockdown ends on May 4th, all citizens are strongly recommended to socially distance and wear masks. Masks are mandatory on public transportation.” | Follow up with the Italy team on the lifting of lockdown policies |
| France | 5 national level policies | France imposed a nationwide lockdown on March 17th with a target of ending it on April 1st, which was extended the first time to April 15th and a second time to May 11.  By June 2, lockdown restrictions were relaxing with the following conditions : “Most travel restrictions have been removed. It is still forbidden to use public transportation during peak hours (6:30-9:30am and 4-7pm), in Ile-de-France without a permitted reason. Permitted reasons include: Travel for work which cannot be postponed. Travel to school or to an exam. Travel for medical appointments that cannot be completed through video meetings. Travel for urgent family reasons including caring for children or a vulnerable individual. Travel to court or police station" | “Complete” --- the remaining restrictions as of June 2 of not being able to travel on public transport in peak hours seem marginal |

Closure and Regulation of Schools: 490 policies in total

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action Needed for Completeness** |
| Germany | 213 provincial level policies, no national level policies,  Missing provincial level policies for 2 provinces: North Rhine-Westphalia and Bremen | School policy imposed at the provincial level. We have data for both school closing and school reopening. | Follow up with Germany group about 1. Bremen and North Rhine-Westphalia school policies  2. their take on how complete the ‘school reopening’ data is |
| Switzerland | 25 national level policies, 211 provincial level policies  No provincial level policies coded for 5 cantons:  "Nidwalden" "Obwalden" "Solothurn" "Thurgau" "Zug"  Some provincial level policies appear to be miscoded/unnecessary (e.g. some provincial level policies appear to merely parrot the federal level policies) | The Swiss federal government closed all schools on march 13th until at least April 4th, then April 19th, extended to April 26th with reopening on May 11th.  Following May 11th, some cantons reimposed school closing although most cantons took provincial level policies in line with reopening on May 11 ---it appears that cantons had flexibility to decide the conditions for reopening  Other provinces had implemented some kind of school policies before march 13th or implemented more stringent policies on top of the federal policies.  There appears to be some discretion/difference between how ‘compulsory’ and ‘non-compulsory’ schools are regulated | Follow up with Swiss group about “missing” provincial level policies for the 5 cantons and to generally inquire about how school closures were implemented in Switzerland |
| Italy | 7 National level policies,  17 provincial level policies  Some provincial level policies appear to be miscoded --- the policy appears to be by the federal government and imposed on several provinces but they are coded as originating from the province --- need to look further into this | Italian government enforced nationwide school closure on March 4th ; schools will reopen in the fall, starting in September  In February, the province of Ligury implemented its on school closing policies and schools were also closed in the policies Lombardy, Piedment, Emilia-Romagna, Friuli Venzeia Giulia and Trento | “Complete” |
| France | 12 national level policies | On March 16, French government closed all schools, reopening of such schools started in May | Follow up as to whether schools were reclosed, but these policies are likely “Complete” |

Mask Wearing: 81 policies in total

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action Needed for Completeness** |
| Germany | 54 provincial level policies,  mask policies not coded for 3 provinces:  “Bavaria”, “Bremen” and “Schleswig-Holstein” | Policies for masks imposed at the provincial level | Follow up with Germany group about mask wearing policies for the 3 provinces |
| Switzerland | 2 National level policies  provincial level policies coded only for 3 provinces: Geneva, Girsons, Ticino | On April 22, the Swiss federal gov decided not to impose a general obligation to wear face masks ; from July 6th, it decided that passengers on public transport must wear face masks | It would seem likely that if the Swiss federal government did not impose a general mask obligation, there should be many canton level policies that are not coded |
| Italy | 1 National level policy and 3 provincial level policies | “On April 26th, the Italian government announces that, after the lockdown ends on May 4th, all citizens are strongly recommended to socially distance and wear masks. Masks are mandatory on public transportation.”  Provincial level policies were implemented before April 26th in Lombardy, Trentino-Alto Adige, Sicily compelling mask wearing | Follow up with Italy team about updates to this policy as well as mask policies in other provinces before April 26th |
| France | 2 national level policy | As of May 11, 2020, in France "it will be compulsory to wear masks on all public transport, in taxis and hired cars such as Uber, and on school buses." | Follow up with France team about updates to this policy and existence of policies before May 11 |

Restrictions of Mass Gathering: 229 policies in total

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action** |
| Germany | 6 national policies; 105 provincial policies  Provincial policies not coded for 1 province: Bremen | Policy made at national and provincial level:  German government prohibits all gatherings on March 16, extends this a few times until May 6th, when further decisions on relaxations are handed over to the provinces. ‘Huge public events’ are still prohibited by the German government until August 31.  Numerous provincial policies coded before and after March 16 | Follow up on provincial policies for Bremen, Hesse (for which there is only 1 policy coded before March 16) and Baden-Wuerttemberg (2 policies before March 16) |
| Switzerland | 3 national policies, 91 provincial policies  Some inconsistencies with national policies that need to be cleaned  Provincial level policies not coded for 1 canton:  "Solothurn" | Policy made at national and canton level:  Swiss federal council prohibits ban on meeting on more than 5 people on March 20th and has extended this policy to July 5th and/or Swiss federal policy bans mass gathering of 1000 or more people on February 28th, which ends on June 20th and ‘since then, there is no limit on the number of peoples at mass gathering’    Most canton level policies appear to have been implemented prior to March 20; policies following March 20th mostly appear to be about extending federal measures, guidelines for implementing federal measures, or cancelling of specific events | Follow up on provincial policies for Solothurn and a few other cantons for which only 1 policy is coded : (Appenzell Innerhoden, Basel-City, Bern, Schaffhausen, Schwzy, Thurgau, Valais, Vaud) |
| Italy | 12 national level policies, 6 provincial level policies  Provincial policies recorded for 3 provinces: Veneto, Liguria and Lombardy | Italian government bans public events in Northern Italy and then specific events (e.g. football, Biennale) before March 5, when it issues a general decree to ban most events --- ban lifted June 15th for concerts (note unclear from the data if ban more generally lifted from June 15th on)  Provincial level policies take place mostly in March | Follow up on lifting of national ban; follow up on existence of provincial policies before March 5 |
| France | 1 national level policy  5 provincial level policies coded for Corsica | “From March 4, 2020, France has banned all gatherings of more than 5000 people in confined spaces extended at least until May 31, 2020.”  Provincial level policies for Corsica deal with preventing gatherings smaller than 5000 people | Follow up on lifting and updates to national ban; follow up on existence of provincial policies, particularly those that prevent gatherings smaller than 5000 people |

Health Testing: 50 policies in total

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action Needed for Completeness** |
| Germany | 4 national level policies, 16 provincial level policies  No policies recorded for 6 provinces: "Brandenburg", "Bremen", "Hesse", "Saarland", "Saxony-Anhalt",  "Thuringia", "Germany" | German government announces people can be tested for coronavirus if they do not show symptoms June 9th.  Provincial level policies implemented before June 9th. | Follow up on health testing policies in 6 provinces for which no policies recorded and follow up for other provinces for which at least one policy is recorded |
| Switzerland | 17 provincial level policies  No policies recorded for 17 cantons  "Aargau", "Appenzell Ausserrhoden", "Appenzell Innerrhoden",  "Basel-City", "Jura", "Lucerne", "Neuchatel", "Nidwalden", "Obwalden",  "Saint Gallen", "Schwyz", "Solothurn", "Uri", "Valais", "Vaud",  "Zug" | It appears that heatlh testing is done at the canton level | Follow up on health testing policies in 17 cantons for which no policies recorded and follow up for other cantons for which at least one policy is recorded |
| Italy | 2 national level policies and 8 provincial level policies  No policies recorded for 16 provinces  "Abruzzo", "Aosta Valley", "Apulia", "Basilicate", "Calabria",  "Campania", "Emilia-Romagna", "Friuli Venezia Giulia", "Latium",  "Liguria", "Molise", "Sardinia", "Sicily", "The Marches", "Trentino-Alto Adige" | This appears to be a national and provincial level policy: On February 26, it was announced that Italy would only test people with symptoms and it was announced on April 25 that “On May 4th, Italy plans to conduct antibody tests on 150,000 people in all 20 regions”  Some Italian regions have also implemented their own testing strategies | Follow up on health testing policies in 16 provinces for which no policies recorded and follow up for other provinces for which at least one policy is recorded |
| France | 3 national level policies | French government announces national strategy for testing on May 11, with updates on May 20 and June 25 | Follow up on national testing strategies before May 11 and follow up on existence of provincial level policies |

Health Monitoring Policy: 39 policies

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| **Country** | **Data availability** | **Policy situation (observed from data)** | **Action** |
| Germany | 3 national level policies and 8 provincial level policies  Provincial level policies announced by Hamburg, Hesse, Bavaria, Saxony-Anhalt and Rheinland-Pflaz | It appears that health monitoring policies implemented at both the federal and provincial levels:    On Feb 1, German government implements an obligation for medical personnel to report if they’ve encountered a patient infected with COVID-19  After Feb 1, a number of provinces implemented their own health monitoring policies | Follow up on provincial policies currently not coded for 11 provinces and on federal level policies after Feb 1 |
| Switzerland | 17 provincial level policies  Policies not recorded for the following 15 cantons: "Appenzell Ausserrhoden", "Basel-City", "Jura", "Lucerne",  "Nidwalden", "Obwalden", "Saint Gallen", "Schaffhausen", "Schwyz",  "Solothurn", "Thurgau", "Uri", "Valais", "Vaud" | Policies for health monitoring appear to be implemented at only the provincial levels | Follow up on canton level policies not coded for 15 cantons |
| Italy | 2 national level policies  7 provincial level policies  No policies recorded for 16 provinces  "Aosta Valley", "Apulia", "Basilicate", "Calabria", "Emilia-Romagna",  "Friuli Venezia Giulia", "Latium", "Molise", "Piedmont", "Sardinia",  "Sicily", "The Marches", "Trentino-Alto Adige", "Umbria", "Veneto" | It appears that health monitoring policies implemented at both the federal and provincial levels:  On March 24, the Italy government announced approval of a digital contract tracing software  Provinces have implemented their only policies for health monitoring (e.g. contact tracing temperature checks, residency reporting) both before and after March 24 | Follow up on provincial policies currently not coded for 16 provinces and on federal level policies after March 24 |
| France | 1 national level policy | Seems like this is a national level policy:    “In France, the French government will launch its Covid-19 tracking app, StopCovid, on Tuesday June 2nd to coincide with the start of France’s stage 2 of deconfinement.” | Follow up as to whether there are provincial policies to be coded and whether there are more national level policies before and after June 2 |