**Supplementary appendix**

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**Supplementary Information**

**for Characteristics and outcomes of pregnant women with SARI-CoV-2 infection and other severe acute respiratory infections (SARI) in Brazil from January to November 2020.**

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# Table S1. Variables recorded by SIVEP-Gripe

|  |  |  |
| --- | --- | --- |
| **Variable** | **Description** | **Category** |
| DT\_NOTIFIC | Date of completion of the notification form. |  |
| SEM\_NOT | Epidemiological week of filling out the notification form. |  |
| DT\_SIN\_PRI | Date of the first symptoms of the case. |  |
| SEM\_PRI | Epidemiological week of onset of symptoms. |  |
| SG\_UF\_NOT | Federative Unit where the Sentinel Unit that made the notification is located. | Table with code and acronyms of the states standardized by IBGE. |
| ID\_REGIONA or CO\_REGIONA | Regional Health Department where the municipality is located made the notification. | Table with code and names of the health regions of the notification municipalities standardized by IBGE. |
| ID\_MUNICIP or CO\_MUN\_NOT | Municipality where the Sentinel Unit that made the notification is located. | Table with code and names of municipalities standardized by IBGE. |
| ID\_UNIDADE or CO\_UNI\_NOT | Sentinel Unit that performed the care, sample collection and case record. | Table with CNES codes and names of sentinel units registered in the system. |
| CS\_SEXO | Patient sex. | 1-Male; 2-Female; 9-Ignored |
| DT\_NASC | Date of birth of the patient. |  |
| NU\_IDADE\_N | Age informed by the patient when the date of birth is not known. If the date of birth is entered, the age is calculated and filled in automatically by the system: considering the interval between the date of birth and the date of the first symptoms. |  |
| TP\_IDADE | Type of age | 1-Day; 2-Month; 3-Year |
| CS\_GESTANT | Gestational age of the patient. | 1-1st Trimester; 2-2nd Trimester; 3-3rd Trimester;4-Gestational Age Ignored; 5-No; 6-Does not apply; 9-Ignored |
| CS\_RACA | Race/ethnicity declared by the patient: | 1-White; 2-Black; 3-Yellow; 4-Brown (Pardo); 5-Indigenous; 9-Ignored |
| CS\_ETINIA | Name and code of the patient's ethnicity, when indigenous. | SIASI table with code and names of indigenous ethnic groups. |
| CS\_ESCOL\_N | The patient's level of education. | 0-No schooling/ Illiterate; 1-Fundamental 1st cycle (1st to 5th grade); 2-Fundamental 2nd cycle (6th to 9th grade); 3- Medium (1st to 3rd year); 4-Superior; 5-Does not apply; 9-Ignored |
| PAC\_COCBO or PAC\_DSCBO | Professional occupation of the patient | Table with code from Occupation of the Classification Brazilian Occupations (CBO). |
| SG\_UF | Federative Unit of residence of the patient. | Table with code and acronyms of the States standardized by IBGE. |
| ID\_RG\_RESI or CO\_RG\_RESI | Regional Health Area where the municipality of residence of the patient is located. | Table with code and names of the Health Regions of the municipalities of residence standardized by IBGE. |
| ID\_MN\_RESI or CO\_MUN\_RES | Municipality of residence of the patient. | Table with code and name of municipalities standardized by IBGE. |
| ID\_PAIS or CO\_PAIS | Patient's country of residence. | Table with code and country name. |
| CS\_ZONA | The geographic area of the patient's home address. | 1-Urban; 2-Rural; 3-Periurban; 9-Ignored |
| HISTO\_VGM | Does the patient have a history of international travel up to 14 days before symptom onset? | 1-Yes; 2-No; 9-Ignored |
| PAIS\_VGM or CO\_PS\_VGM | A country where the trip was made | Table with code and country name. |
| LO\_PS\_VGM | Location (city, state, province and others) where the trip was made |  |
| DT\_VGM | The date on which the trip was made |  |
| DT\_RT\_VGM | The date that returned from travel |  |
| SURTO\_SG | Is it a case of an SG outbreak that evolved to SARI? | 1-Yes; 2-No; 9-Ignored |
| NOSOCOMIAL | Case of SRAG with infection acquired after hospitalization. | 1-Yes; 2-No; 9-Ignored |
| AVE\_SUINO | Case with direct contact with birds or pigs. | 1-Yes; 2-No; 9-Ignored |
| FEBRE | Did the patient have a fever? | 1-Yes; 2-No; 9-Ignored |
| TOSSE | Did the patient have a cough? | 1-Yes; 2-No; 9-Ignored |
| GARGANTA | Did the patient have a sore throat? | 1-Yes; 2-No; 9-Ignored |
| DISPNEIA | Did the patient have dyspnea? | 1-Yes; 2-No; 9-Ignored |
| DESC\_RESP | Did the patient present respiratory distress? | 1-Yes; 2-No; 9-Ignored |
| SATURACAO | Did the patient present O2 saturation< 95%? | 1-Yes; 2-No; 9-Ignored |
| DIARREIA | Did the patient have diarrhea? | 1-Yes; 2-No; 9-Ignored |
| VOMITO | Did the patient present vomiting? | 1-Yes; 2-No; 9-Ignored |
| DOR\_ABD | Did the patient present abdominal pain? | 1-Yes; 2-No; 9-Ignored |
| FADIGA | Did the patient present fatigue? | 1-Yes; 2-No; 9-Ignored |
| PERD\_OLFT | Did the patient have a loss of smell? | 1-Yes; 2-No; 9-Ignored |
| PERD\_PALA | Did the patient show a loss of taste? | 1-Yes; 2-No; 9-Ignored |
| OUTRO\_SIN | Did the patient present another symptom(s)? | 1-Yes; 2-No; 9-Ignored |
| OUTRO\_DES | List other signs and symptoms presented by the patient. |  |
| PUERPERA | Is the patient postpartum or parturient (a woman who recently gave birth – up to 45 days of delivery)? | 1-Yes; 2-No; 9-Ignored |
| FATOR\_RISC | Does the patient have some risk factor? | 1-Yes; 2-No; 9-Ignored |
| CARDIOPATI | Does the patient have Chronic Cardiovascular Disease? | 1-Yes; 2-No; 9-Ignored |
| HEMATOLOGI | Does the patient have Chronic Hematological Disease? | 1-Yes; 2-No; 9-Ignored |
| SIND\_DOWN | Does the patient have Down syndrome? | 1-Yes; 2-No; 9-Ignored |
| HEPATICA | Does the patient have Chronic Liver Disease? | 1-Yes; 2-No; 9-Ignored |
| ASMA | Does the patient have Asthma | 1-Yes; 2-No; 9-Ignored |
| DIABETES | Does the patient have Diabetes mellitus? | 1-Yes; 2-No; 9-Ignored |
| NEUROLOGIC | Does the patient have a Neurological Disease? | 1-Yes; 2-No; 9-Ignored |
| PNEUMOPATI | Does the patient have another chronic pneumopathy? | 1-Yes; 2-No; 9-Ignored |
| IMUNODEPRE | Does the patient have Immunodeficiency or Immunosuppression (decreased immune system function)? | 1-Yes; 2-No; 9-Ignored |
| RENAL | Does the patient have Chronic Kidney Disease? | 1-Yes; 2-No; 9-Ignored |
| OBESIDADE | Is the patient obese? | 1-Yes; 2-No; 9-Ignored |
| OBES\_IMC | BMI (Body Mass Index) value of the patient calculated by the health professional. | 1-Yes; 2-No; 9-Ignored |
| OUT\_MORBI | Does the patient have another risk factor(s)? | 1-Yes; 2-No; 9-Ignored |
| MORB\_DESC | List another risk factor(s) of the patient |  |
| VACINA | Inform if the patient was vaccinated against influenza in the last campaign, after checking the documentation/booklet. | 1-Yes; 2-No; 9-Ignored |
| DT\_UT\_DOSE | Date of the last dose of flu vaccine the patient took. |  |
| MAE\_VAC | If the patient < months, does the mother received a vaccine? | 1-Yes; 2-No; 9-Ignored |
| DT\_VAC\_MAE | If the mother received a vaccine, what's the date? |  |
| M\_AMAMENTA | If the patient < 6 months, does the mother breastfeed the child? | 1-Yes; 2-No; 9-Ignored |
| DT\_DOSEUNI | If >= 6 months and <= 8 years, the date of a single dose for children vaccinated in previous years campaigns |  |
| DT\_1\_DOSE | If >= 6 months and <= 8 years, the date of the first dose for children vaccinated for the first time |  |
| DT\_2\_DOSE | If >= 6 months and <= 8 years date of the 2nd dose for children vaccinated for the first time |  |
| ANTIVIRAL | Did the patient use antiviral to treat the disease? | 1-Yes; 2-No; 9-Ignored |
| TP\_ANTIVIR | Which antiviral was used? | 1- Oseltamivir; 2- Zanamivir; 3- Other |
| OUT\_ANTIV | If the antiviral used was not Oseltamivir or Zanamivir, please report which antiviral was used. |  |
| DT\_ANTIVIR | The date on which antiviral treatment was started. |  |
| HOSPITAL | Was the patient hospitalized? | 1-Yes; 2-No; 9-Ignored |
| DT\_INTERNA | The date the patient was hospitalized. |  |
| SG\_UF\_INTE | Federative Unit of hospitalization of the patient. | Table with code and acronyms of THE States standardized by IBGE. |
| ID\_RG\_INTE | Regional Health Department where the municipality of hospitalization of the patient is located. | Table with code and names of the Health Regions of the municipalities of hospitalization standardized by IBGE. |
| CO\_RG\_INTE | Regional Health Department where the municipality of hospitalization of the patient is located. | Table with code and names of the Health Regions of the municipalities of hospitalization standardized by IBGE. |
| ID\_MN\_INTE | Municipality where the Health Unit where the patient has been hospitalized is located. | Table with code and names of municipalities standardized by IBGE. |
| CO\_MU\_INTE | Municipality where the Health Unit where the patient has been hospitalized is located. | Table with code and names of municipalities standardized by IBGE. |
| UTI | Was the patient admitted to the ICU? | 1-Yes; 2-No; 9-Ignored |
| DT\_ENTUTI | Date of entry of the patient into the Intensive Care Unit (ICU). |  |
| DT\_SAIDUTI | The date on which the patient left the Intensive Care Unit (ICU). |  |
| SUPORT\_VEN | Did the patient use ventilatory support? | 1-Yes, invasive; 2-Yes, non-invasive; 3-No; 9-Ignored |
| RAIOX\_RES | Report chest X-ray results. | 1-Normal; 2-Interstitial infiltrate; 3-Consolidation; 4-Mixed; 5-Other; 6-Unrealized; 9-Ignored |
| RAIOX\_OUT | Report the chest X-ray result if the 5-Other option is selected. |  |
| DT\_RAIOX | If a chest X-Ray was performed, specify the date of examination. |  |
| AMOSTRA | Was the sample collection performed for diagnostic testing? | 1-Yes; 2-No; 9-Ignored |
| DT\_COLETA | Date of sample collection for diagnostic testing. |  |
| TP\_AMOSTRA | Type of clinical sample collected for diagnostic testing. | 1-Naso-oropharyngeal secretion; 2-Washed Broco-alveolar; 3-Post-mortem sample; 4-Another, which one?; 5-CSF (cerebrospinal fluid); 9-Ignored |
| OUT\_AMOST | Description of the type of clinical sample, case other than those listed in the field categories. |  |
| PCR\_RESUL | RT-PCR test result/another method by Molecular Biology. | 1-Detectable; 2-Undetectable; 3-Inconclusive; 4-Not performed; 5-Awaiting Result; 9-Ignored |
| DT\_PCR | Date of RT-PCR Result/another method by Molecular Biology |  |
| POS\_PCRFLU | RT-PCR result was positive for Influenza | 1-Yes; 2-No; 9-Ignored |
| TP\_FLU\_PCR | Diagnostic result of RT-PCR for influenza type. | 1-Influenza A; 2-Influenza B |
| PCR\_FLUASU | Subtype for Influenza A. | 1-Influenza A(H1N1)pdm09; 2-Influenza A (H3N2); 3-Influenza A not subtyped; 4-Influenza A not subtyped; 5-Inconclusive; 6-Other, specify: |
| FLUASU\_OUT | Another subtype for Influenza A. |  |
| PCR\_FLUBLI | The lineage for Influenza B. | 1-Victoria; 2-Yamagatha; 3-Not performed; 4-Inconclusive; 5-Other, specify: |
| FLUBLI\_OUT | Another lineage for Influenza B. |  |
| POS\_PCROUT | RT-PCR result was positive for another respiratory virus | 1-Yes; 2-No; 9-Ignored |
| PCR\_VSR | Diagnostic result of RT-PCR for (Vsr). |  |
| PCR\_PARA1 | Diagnosis result of RT-PCR for Parainfluenza 1. |  |
| PCR\_PARA2 | Diagnosis result of RT-PCR for Parainfluenza 2. |  |
| PCR\_PARA3 | Diagnosis result of RT-PCR for Parainfluenza 3. |  |
| PCR\_PARA4 | Diagnosis result of RT-PCR for Parainfluenza 4. |  |
| PCR\_ADENO | Diagnosis result of RT-PCR for Adenovirus. |  |
| PCR\_METAP | Diagnosis result of RT-PCR for Metapneumovirus. |  |
| PCR\_BOCA | Diagnosis result of RT-PCR for Bocavirus. |  |
| PCR\_RINO | Diagnosis result of RT-PCR for Rhinovirus. |  |
| PCR\_OUTRO | Diagnosis result of RT-PCR for another respiratory virus. |  |
| DS\_PCR\_OUT | Name of other respiratory viruses identified by RT-PCR. |  |
| CLASSI\_FIN | The final diagnosis of the case. (If you have divergent results between laboratory methodologies, prioritize the RT-PCR result) | 1-SARI by influenza; 2-SARI by another respiratory virus; 3-SARI by another etiological agent, which: 4-SARI not specified; 5-SARI by COVID-19 |
| CLASSI\_OUT | Description of which another etiological agent was identified |  |
| CRITERIO | Indicate the confirmation criterion. |  |
| EVOLUCAO | Evolution of the case | 1-Cure; 2-Death; 3- Death from other causes; 9-Ignored |
| DT\_EVOLUCA | Date of discharge or death |  |
| DT\_ENCERRA | Date of closure of the case. |  |
| DT\_DIGITA | Date of inclusion of the registry in the system. |  |
| PCR\_SARI2 | Rt-PCR diagnostic result for (SARI-CoV-2). |  |
| OUT\_ANIM | Inform the animal that the patient had contact with if option 3 is selected. |  |
| TOMO\_RES | Report the CT (radiography) results. | 1- COVID-19 specific changes; 2- Indeterminate COVID-19; 3- Atypical COVID-19; 4- Negative for Pneumonia; 5- Other; 6-Not performed; 9-Ignored |
| TOMO\_OUT | Inform the tomography result if option 5-Other is selected |  |
| DT\_TOMO | If you performed a CT scan, specify the date of the examination. |  |
| TP\_TES\_AN | Type of antigen test that was performed. | 1-Immunofluorescence (IF); 2- Rapid antigen test |
| DT\_RES\_AN | Date of the antigen test result. |  |
| RES\_AN | Antigen Test Result | 1- Positive; 2- Negative; 3- Inconclusive; 4-Not performed; 5-Awaiting result; 9-Ignored |
| POS\_AN\_FLU | Antigen Test Result That Was Positive for Influenza | 1-Yes; 2-No; 9-Ignored |
| TP\_FLU\_AN | The Antigen Test result, for influenza type. | 1-Influenza A; 2-Influenza B |
| POS\_AN\_OUT | The Antigen Test result, which was positive for another respiratory virus. | 1-Yes; 2-No; 9-Ignored |
| AN\_SARI2 | Antigen Test Result, for SARS-CoV-2. |  |
| AN\_VSR | Antigen Test Result, for RSV |  |
| AN\_PARA1 | Antigen Test Result, parainfluenza 1. |  |
| AN\_PARA2 | Antigen Test Result. Parainfluenza 2. |  |
| AN\_PARA3 | Antigen Test Result. Parainfluenza 3. |  |
| AN\_ADENO | Antigen Test Result. Adenovirus. |  |
| AN\_OUTRO | Antigen Test Result. |  |
|  | Another respiratory virus. |  |
| DS\_AN\_OUT | Name of the other respiratory virus identified by the Antigen Test. |  |
| TP\_AM\_SOR | Type of serological sample that was collected. |  |
| SOR\_OUT | Description of the type of clinical sample, case other than those listed in category one (1) of the field. |  |
| DT\_CO\_SOR | Date of collection of serology diagnostic material. |  |
| TP\_SOR | Type of serological test that was performed | 1-rapid diagnostic test (RDT); 2- enzyme-linked immunosorbent assay (ELISA); 3- chemiluminescence immunoassay (CLIA); 4- Other, which |
| OUT\_SOR | Description of the type of Serological Test |  |
| DT\_RES | Date of Serological Test Result |  |
| RES\_IGG | Serology Result for SARS-CoV-2 |  |
| RES\_IGM | Serology Result for SARS-CoV-2 |  |
| RES\_IGA | Serology Result for SARS-CoV-2 |  |
| Abbreviations: IBGE: Brazilian Institute of Geography and Statistics; CNES: National Registry of Health Facilities; SIASI: Brazilian Health Information System for Indigenous People. | | |

# Table S2. Coding of study variables.

|  |  |  |  |
| --- | --- | --- | --- |
| **Variable SIVEP-Gripe** | **Variable study** | **Category study** | **Observation** |
| CLASSI\_FIN | SARI Types | 1. SARI with influenza or other etiological agents  2. SARI cases with unknown etiology  3. COVID-19 cases | Re-grouped original categories into three categories:  1-*SRAG por influenza or 2-SRAG por outro vírus respiratório or 3-SRAG por outro agente etiológico, qual*: → 1. SARI with influenza or other etiological agents  4-*SRAG não especificado* → 2. SARI cases with unknown etiology  5-*SRAG por COVID-19* → 3. COVID-19 cases  All cases classified as ‘3*-SRAG por outro agente etiológico, qual*:’ were reviewed using the CLASSI\_OUT and reclassified if needed. |
| CS\_GESTANT  PUERPERA | Gestational age | 1. First trimester  2. Second trimester  3. Third trimester  4. Trimester ignored  5. Postpartum or post-abortion | Records of currently pregnant women were identified as those with a recorded gestational age, who were not simultaneously recorded as postpartum nor had an abortion.  Recently pregnant women comprised those in the postpartum or post-abortion period.  The variables MORB\_DESC and OUTRO\_DES were used for identifying abortions. |
| CRITERIO |  | The criterion used for the final classification of the case. | 1. Laboratory; 2. Clinical-Epidemiological; 3. Clinical; 4. Clinical-Image |
| NU\_IDADE\_N | Age group (years) | 1. 10 to 19 2. 20 to 29 3. 30 to 39 4. 40 to 49 | Age in years is computed by the system as the interval between the date of birth and the date of the first symptoms. Categories created. |
| CS\_RACA | Race/ethnicity | 1. White 2. Black 3. East Asian 4. Pardo 5. Indigenous 6. Missing/unknown | Race/ethnicity is recorded according to the patient’s declaration. The official Brazilian classification of ethnicity recognizes five groups: Branco (White), Pardo (includes people who declare themselves as such or as a mulatto, cabocla, cafuza, mameluca or mestizo of black with a person of another skin colour), Preto (Black), Amarelo (East Asian), and Indígena (Indigenous).  *9-Ignorado* and missings grouped as missing/unknown. |
| CS\_ESCOL\_N | Education level | 1. No education 2. Elementary school  3. High school  4. Higher education  5. Missing/unknown | Educational level is recorded according to the grade/year the patient declared attending or attended school. They were regrouped into five categories: 0 → no education; 1 or 2 → elementary school; 3 → high school; 4 → higher education; 5 or 9 → missing or unknown |
| ID\_RG\_RESI  SG\_UF  Tabela com código e siglas das UF padronizados pelo IBGE. | Region and Federation units of residence of patients | 1. South-East 2. Northeast 3. Central-West 4. North 5. South | The Regional Division of Brazil, defined by the Brazilian Institute of Geography and Statistics (IBGE), consists of States (27 federation units; 26 states and the Federal District) and Municipalities grouped into regions (North, Northeast, Southeast, South and Central West). |
| Comorbidities | | | |
| CARDIOPATI | Hypertension or another cardiovascular disease | 1. Yes 2. No  9. missing/unknown | If CARDIOPATI yes or any other condition related to the cardiovascular system identified through the MORB\_DESC, such as hypertensive disorders of pregnancy (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified, including ‘HIPER’, ‘HELLP’, ‘CARDIO’, ‘HAS’, to identify hypertension and other cardiovascular diseases. |
| DIABETES | Diabetes | 1. Yes 2. No  9. missing/unknown | If DIABETES yes or any other condition related to diabetes identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified, including 'DIABET', 'DMG', to identify any type of diabetes. |
| ASMA  PNEUMOPATI | Asthma or other chronic lung diseases | 1. Yes 2. No  9. missing/unknown | If ASMA or PNEUMOPATI yes or any other chronic respiratory condition identified through the MORB\_DESC such as chronic obstructive pulmonary diseases (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified, including ‘DPOC’, ‘ENFISEMA’, ‘DOENCAS RESPIRATORIA CRONICA, to identify chronic lung diseases. |
| OBESIDADE | Obesity | 1. Yes 2. No  9. missing/unknown | If OBESIDADE yes or if obesity is identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'OBESID' to identify obesity. |
| IMUNODEPRE | Immunosuppression or HIV | 1. Yes 2. No  9. missing/unknown | If IMUNODEPRE yes or if any other condition related to immunosuppression, such as HIV infection, identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'IMUNOS', ‘HIV’ or ‘AIDS’. |
| HEMATOLOGI | Chronic hematological diseases or anemia | 1. Yes 2. No  9. missing/unknown | If HEMATOLOGI yes or if any other condition related to hematological conditions identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'HEMAT', 'ANEM', 'TROMBOFILIA' or 'TALASSEMIA'. Typing issues were reviewed. |
| NEUROLOGIC | Neurological disease or depression | 1. Yes 2. No  9. missing/unknown | If NEUROLOGIC yes or if any other condition related to neurological disorders, including depression, identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'NEUROLO' or 'DEPR'. |
| RENAL | Chronic kidney disease | 1. Yes 2. No  9. missing/unknown | If RENAL yes or if any other condition related to chronic kidney conditions identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'INSUFICIENCIA RENAL'. |
| HEPATICA | Chronic liver disease or hepatitis | 1. Yes 2. No  9. missing/unknown | If HEPATICA yes or if any other condition related to liver conditions, including hepatitis, identified through the MORB\_DESC (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'HEPAT' or 'HEP'. |
| MORB\_DESC | Tuberculosis | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'TUBER' or 'TB PULMONAR' for creating the Tuberculosis variable. |
| MORB\_DESC | Smoking | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'FUMANTE', 'TABA' or'TAGAGISMO' for creating the Smoking variable. |
| OUT\_MORBI  MORB\_DESC | Other comorbidities | 1. Yes 2. No  9. missing/unknown | If OUT\_MORBI yes and not missing/unknown and not none of above classified. SIND\_DOWN grouped within other comorbidities. Any description related to pregnancy status in the MORB\_DESC ('GESTANT', 'GRAVID' or 'PUERP') were not considered as other comorbidities. |
| Symptoms | | | |
| FEBRE | Fever | 1. Yes 2. No  9. missing/unknown | If FEBRE yes or if any other fever description is identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'FEB', 'TEMP' or 'hiperter'. |
| TOSSE | Cough | 1. Yes 2. No  9. missing/unknown | If TOSSE yes or if any other cough description, including sputum, identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'TOSSE', 'ESCA' or 'EXPEC'. |
| GARGANTA | Sore throat | 1. Yes 2. No  9. missing/unknown | If GARGANTA yes or if any other sore throat description, including hoarseness, identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'GARG' or 'ROUQUID'. |
| DISPNEIA | Shortness of breath | 1. Yes 2. No  9. missing/unknown | If DISPNEIA yes or other description related to shortness of breath identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'FALTA DE AR' or 'DISPN'. |
| SATURACAO | Oxygen saturation < 95% | 1. Yes 2. No  9. missing/unknown | If SATURACAO yes or other description related to saturation identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'SAT'. Included only saturation of less than 95%. |
| VOMITO | Vomiting or nausea | 1. Yes 2. No  9. missing/unknown | If VOMITO yes or other description related to vomiting and nausea identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'VOM' or 'NAUS'. |
| DESC\_RESP | Runny nose or nasal congestion | 1. Yes 2. No  9. missing/unknown | If DESC\_RESP and other descriptions related to Runny nose or nasal congestion identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as, but not exclusive to, 'CORIZ', 'RINORR', 'NASAL' or 'NARIZ ENTUPIDO'. |
| DIARREIA | Diarrhea | 1. Yes 2. No  9. missing/unknown | If DIARREIA yes and other descriptions related to Diarrhoea identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'DIARR'. |
| FADIGA | Fatigue/malaise | 1. Yes 2. No  9. missing/unknown | If FADIGA yes and other descriptions related to asthenia or tiredness identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'FADI', 'CANSA', 'FRAQ' or 'ASTE'. |
| PERD\_OLFT | Loss of smell | 1. Yes 2. No  9. missing/unknown | If PERD\_OLFT yes and other description related to reduction or loss of smell identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'ANOSM', 'OLFA' or 'HIPOS'. |
| PERD\_PALA | Loss of taste | 1. Yes 2. No  9. missing/unknown | If PERD\_PALA yes and other description related to reduction or loss of taste identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'AGEU', 'DISG' or 'PALA'. |
| DOR\_ABD | Abdominal pain | 1. Yes 2. No  9. missing/unknown | If DOR\_ABD yes and other descriptions related to abdominal discomfort or pain, including colic, identified through the OUTRO\_DES (spelt in Portuguese).  WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'VENT', 'ABDOM' or 'COLICA'. |
| OUTRO\_DES | Chest pain | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'PEITO', 'TORACI' or 'TORAX' within OUTRO\_DES for creating the Chest pain variable. |
| OUTRO\_DES | Headache | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'CEFA' or 'CABE' within OUTRO\_DES for creating the Headache variable. |
| OUTRO\_DES | Muscle aches | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'MUSC', 'CORP', 'ALGIA CORPO' or 'MIAL' within OUTRO\_DES for creating the Muscle aches variable. |
| OUTRO\_DES | Joint pain (arthralgia) | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'ARTRA' or 'ARTICU' within OUTRO\_DES for creating the Joint pain variable. |
| OUTRO\_DES | Conjunctivitis | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'CONJU' within OUTRO\_DES for creating the Conjunctivitis variable. |
| OUTRO\_DES | Skin rash or skin ulcers | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'RASH', 'PELE', 'MANCH' or 'DERM' within OUTRO\_DES for creating the Skin rashes variable. |
| OUTRO\_DES | Bleeding (hemorrhage) | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'SANGR' or 'HEMOR' within OUTRO\_DES for creating the Bleeding variable. |
| OUTRO\_DES | Lymphadenopathy | 1. Yes 2. unknown | WHEN clause and ? operator were used in the SQL procedure for subsetting the substrings specified as 'LINF'within OUTRO\_DES for creating the Lymphadenopathy variable. |
| OUTRO\_SIN OUTRO\_DES | Other symptoms | 1. Yes 2. No | If OUTRO\_SIN yes and not missing/unknown and not none of above classified. Any description related to pregnancy status in the OUTRO\_DES ('GESTANT', 'GRAVID' or 'PUERP') were not considered as other symptoms. |
| RAIOX\_RES  TOMO\_RES | Radiological diagnosis (X-ray or CT) | 1. Not performed 2. Performed 3. Missing/unknown | If results other than *6-Não realizado* or *9-Ignorado*, coded as Performed. Ignored and missing grouped in the same variable. |
| Outcomes | | | |
| UTI | Admission to intensive care unit (ICU) | 1. Yes 2. No  9. missing/unknown | Ignored and missing grouped in the same variable. |
| DT\_ENTUTI  DT\_SAIDUTI | ICU length of stay, median (IQR) |  | Computed the number of days between the date of ICU discharge and the date of ICU admission. |
| SUPORT\_VEN | Ventilatory support | 1. Not artificially ventilated 2. Invasive ventilation  3. Non-invasive ventilation  4. Missing/unknown | Ignored and missing grouped in the same variable. |
| EVOLUCAO | Final outcome | 1. Survivors  2. Non-survivors (any cause) 3. Missing/unknown | *2- Óbito* and *3- Óbito por outras causas* recoded as death (non-survivors) by any cause;  Ignored and missing grouped in the same variable. |

Observation: For all variable which open fields were used, typing problems / misspellings were reviewed.

|  |  |  |  |
| --- | --- | --- | --- |
| Table S3: Characteristics of survivors and non-survivors among SARI cases with unknown etiology. Brazil, 2020. (N=5415). | | | |
| **Characteristics** | **Survivors  (n= 4568)** | **Non-survivors  (n=180)** | **Without outcome\***  **(n=667)** |
| Age group (years), n (%) |  |  |  |
| 10 to 19 | 705 (15.4) | 23 (12.8) | 108 (16.2) |
| 20 to 29 | 2110 (46.2) | 69 (38.3) | 315 (47.2) |
| 30 to 39 | 1497 (32.8) | 69 (38.3) | 200 (30.0) |
| 40 to 49 | 256 (5.6) | 19 (10.6) | 44 (6.6) |
| Race/ethnicity (self-reported), n (%) |  |  |  |
| White | 1364 (29.9) | 53 (29.4) | 180 (27.0) |
| Black | 328 (7.2) | 18 (10.0) | 55 (8.2) |
| East Asian | 33 (0.7) | 1 (0.6) | 6 (0.9) |
| Pardo | 1991 (43.6) | 75 (41.7) | 308 (46.2) |
| Indigenous | 22 (0.5) | 3 (1.7) | 5 (0.7) |
| Missing/unknown | 830 (18.2) | 30 (16.7) | 113 (16.9) |
| Education level, n (%) |  |  |  |
| No education | 15 (0.3) | 3 (1.7) | 5 (0.7) |
| Elementary school | 720 (15.8) | 22 (12.2) | 123 (18.4) |
| High school | 1041 (22.8) | 40 (22.2) | 148 (22.3) |
| Higher education | 274 (6.0) | 3 (1.7) | 37 (5.5) |
| Missing/unknown | 2518 (55.1) | 112 (62.2) | 354 (53.1) |
| Comorbidities, n (%)\*\* |  |  |  |
| Hypertension or other cardiovascular disease | 420 (9.2) | 43 (23.9) | 59 (8.8) |
| Diabetes | 244 (5.3) | 16 (8.9) | 32 (4.8) |
| Asthma or other chronic lung diseases | 457 (10.0) | 11 (6.1) | 45 (6.7) |
| Obesity | 144 (3.1) | 10 (5.6) | 31 (4.6) |
| Immunosuppression or HIV | 90 (2.0) | 5 (2.8) | 19 (2.8) |
| Chronic hematological diseases or anemia | 55 (1.2) | 10 (5.6) | 12 (1.8) |
| Neurological disease or depression | 47 (1.0) | 7 (3.9) | 4 (0.6) |
| Chronic kidney disease | 37 (0.8) | 2 (1.1) | 8 (1.2) |
| Chronic liver disease or hepatitis | 24 (0.5) | 1 (0.6) | 4 (0.6) |
| Tuberculosis | 5 (0.1) | 2 (1.1) | 3 (0.4) |
| Other comorbidities | 221 (4.8) | 18 (10.0) | 35 (5.2) |
| Smoking (former or current) | 63 (1.4) | 2 (1.1) | 14 (2.1) |
| Gestational age, n (%) |  |  |  |
| First trimester | 440 (9.6) | 16 (8.9) | 75 (11.2) |
| Second trimester | 930 (20.4) | 29 (16.1) | 143 (21.4) |
| Third trimester | 1661 (36.4) | 34 (18.9) | 219 (32.8) |
| Trimester ignored | 142 (3.1) | 5 (2.8) | 35 (5.2) |
| Postpartum or post-abortion | 1395 (30.5) | 96 (53.3) | 195 (29.2) |
| Admission to intensive care unit (ICU), n (%) | 678 (14.8) | 108 (60.0) | 125 (18.7) |
| ICU Lenght of stay | 4 (2;6) n=338 | 3 (1;8) n=57 | 3 (2;5) n=17 |
| Ventilatory support |  |  |  |
| Not artificialy ventilated | 2791 (61.1) | 31 (17.2) | 320 (48.0) |
| Non-invasive ventilation (NIV) | 950 (20.8) | 35 (19.4) | 159 (23.8) |
| Invasive ventilation (IV) | 215 (4.7) | 92 (51.1) | 37 (5.5) |
| Missing | 612 (13.4) | 22 (12.2) | 151 (22.6) |
| \*Missing or still in hospital.  \*\*The sum of the presence of comorbidity may exceed the total of the column since several comorbidities per woman might apply. | | | |

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| --- | --- | --- | --- |
| Table S4: Characteristics of survivors and non-survivors among SARI cases with influenza or other etiological agents. Brazil, 2020. (N=190). | | | |
| **Characteristics** | **Survivors  (n=164)** | **Non-survivors  (n=9)** | **Without outcome\* (n=17)** |
| Age group (years), n (%) |  |  |  |
| 10 to 19 | 30 (18.3) | 2 (22.2) | 1 (5.9) |
| 20 to 29 | 66 (40.2) | 5 (55.6) | 11 (64.7) |
| 30 to 39 | 63 (38.4) | 2 (22.2) | 5 (29.4) |
| 40 to 49 | 5 (3.0) | 0 | 0 |
| Race/ethnicity (self-reported), n (%) |  |  |  |
| White | 62 (37.8) | 2 (22.2) | 11 (64.7) |
| Black | 10 (6.1) | 1 (11.1) | 1 (5.9) |
| East Asian | 1 (0.6) | 1 (11.1) | 0 |
| Pardo | 69 (42.1) | 4 (44.4) | 5 (29.4) |
| Indigenous | 0 | 0 | 0 |
| Missing/unknown | 22 (13.4) | 1 (11.1) | 0 |
| Education level, n (%) |  |  |  |
| No education | 0 | 1 (11.1) | 0 |
| Elementary school | 34 (20.7) | 2 (22.2) | 2 (1.8) |
| High school | 54 (32.9) | 1 (11.1) | 1 (5.9) |
| Higher education | 20 (12.2) | 0 | 2 (11.8) |
| Missing/unknown | 56 (34.1) | 5 (55.6) | 12 (70.6) |
| Comorbidities, n (%)\*\* |  |  |  |
| Hypertension or other cardiovascular disease | 13 (7.9) | 1 (11.1) | 0 |
| Diabetes | 7 (4.3) | 0 | 1 (5.9) |
| Asthma or other chronic lung diseases | 11 (6.7) | 2 (22.2) | 1 (5.9) |
| Obesity | 7 (4.3) | 0 | 0 |
| Immunosuppression or HIV | 3 (1.8) | 0 | 0 |
| Chronic hematological diseases or anemia | 0 | 1 (11.1) | 0 |
| Neurological disease or depression | 3 (1.8) | 0 | 0 |
| Chronic kidney disease | 0 | 0 | 0 |
| Chronic liver disease or hepatitis | 0 | 0 | 0 |
| Tuberculosis | 0 | 0 | 0 |
| Other comorbidities | 12 (7.3) | 0 | 0 |
| Smoking (former or current) | 5 (3.0) | 0 | 0 |
| Gestational age, n (%) |  |  |  |
| First trimester | 12 (7.3) | 1 (11.1) | 3 (17.6) |
| Second trimester | 39 (23.8) | 2 (22.2) | 7 (41.2) |
| Third trimester | 78 (47.6) | 2 (22.2) | 6 (35.3) |
| Trimester ignored | 8 (4.9) | 0 | 1 (5.9) |
| Postpartum or post-abortion | 27 (16.5) | 4 (44.4) | 0 |
| Admission to intensive care unit (ICU), n (%) | 25 (15.2) | 3 (33.3) | 2 (11.8) |
| ICU Lenght of stay | 4 (1;7) n=14 | 0 | 5 (5;5) n=1 |
| Ventilatory support |  |  |  |
| Not artificialy ventilated | 103 (62.8) | 1 (11.1) | 6 (35.3) |
| Non-invasive ventilation (NIV) | 38 (23.2) | 1 (11.1) | 3 (17.6) |
| Invasive ventilation (IV) | 8 (4.9) | 5 (55.6) | 1 (5.9) |
| Missing | 15 (9.1) | 2 (22.2) | 7 (41.2) |
| \*Missing or still in hospital.  \*\*The sum of the presence of comorbidity may exceed the total of the column since several comorbidities per woman might apply. | | | |

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| Table S5: Distribution of survivors and non-survivors among pregnant and postpartum with SARI with influenza or other etiological agents, by state. Brazil, 2020. (N=190). | | | | |
| **Region/State** | **Survivors  (n=164)** | **Non-survivors  (n=9)** | **Without outcome\***  **(n=17)** | **Total (n=190)** | |
| **North, n (%)** | **10 (83.3)** | **1 (8.3)** | **1 (8.3)** | **12** | |
| AM | 2 (100) | 0 | 0 | 2 | |
| PA | 6 (75.0) | 1 (12.5) | 1 (12.5) | 8 | |
| RO | 0 | 0 | 0 | 0 | |
| AP | 0 | 0 | 0 | 0 | |
| TO | 2 (100) | 0 | 0 | 2 | |
| RR | 0 | 0 | 0 | 0 | |
| AC | 0 | 0 | 0 | 0 | |
| **Northeast, n (%)** | **50 (89.3)** | **3 (5.4)** | **3 (5.4)** | **56** | |
| AL | 0 | 0 | 0 | 0 | |
| BA | 7 (87.5) | 1 (12.5) | 0 | 8 | |
| CE | 3 (75.0) | 1 (25.0) | 0 | 4 | |
| MA | 13 (92.9) | 0 | 1 (7.1) | 14 | |
| PB | 1 (50.0) | 0 | 1 (50.0) | 2 | |
| PE | 6 (75.0) | 1 (12.5) | 1 (12.5) | 8 | |
| PI | 16 (100) | 0 | 0 | 16 | |
| RN | 4 (100) | 0 | 0 | 4 | |
| SE | 0 | 0 | 0 | 0 | |
| **Southeast, n (%)** | **48 (82.8)** | **4 (6.9)** | **6 (10.3)** | **58** | |
| ES | 0 | 0 | 1 (100) | 1 | |
| MG | 9 (75.0) | 1 (8.3) | 2 (16.7) | 12 | |
| RJ | 6 (85.7) | 0 | 1 (14.3) | 7 | |
| SP | 33 (86.8) | 3 (7.9) | 2 (5.3) | 38 | |
| **South, n (%)** | **32 (84.2)** | **1 (2.6)** | **5 (13.2)** | **38** | |
| PR | 32 (86.5) | 1 (2.7) | 4 (10.8) | 37 | |
| RS | 0 | 0 | 1 (100) | 1 | |
| SC | 0 | 0 | 0 | 0 | |
| **Central-West, n (%)** | **24 (92.3)** | **0** | **2 (7.7)** | **26** | |
| DF | 4 (80.0) | 0 | 1 (20.0) | 5 | |
| GO | 12 (92.3) | 0 | 1 (7.7) | 13 | |
| MS | 6 (100) | 0 | 0 | 6 | |
| MT | 2 (100) | 0 | 0 | 2 | |

\*Missing or still in hospital.

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| Table S6: Distribution of survivors and non-survivors among pregnant and postpartum women with SARI with unknown etiology by region and state. Brazil, 2020. (N=5415). | | | | |
| **Region/State** | **Survivors  (n=4568)** | **Non-survivors  (n=180)** | **Without outcome\* (n=667)** | **Total (n=5415)** |
| **North, n (%)** | **276 (76.7)** | **15 (4.2)** | **69 (19.2)** | **360** |
| AM | 79 (85.9) | 3 (3.3) | 10 (10.9) | 92 |
| PA | 136 (83.4) | 10 (6.1) | 17 (10.4) | 163 |
| RO | 14 (36.8) | 2 (5.3) | 22 (57.9) | 38 |
| AP | 21 (77.8) | 0 | 6 (22.2) | 27 |
| TO | 22 (61.1) | 0 | 14 (38.9) | 36 |
| RR | 0 | 0 | 0 | 0 |
| AC | 4 (100) | 0 | 0 | 4 |
| **Northeast, n (%)** | **1235 (83.0)** | **59 (4.0)** | **193 (13.0)** | **1,487** |
| AL | 16 (45.7) | 4 (11.4) | 15 (42.9) | 35 |
| BA | 222 (85.7) | 21 (8.1) | 16 (6.2) | 259 |
| CE | 221 (90.9) | 10 (4.1) | 12 (4.9) | 243 |
| MA | 44 (55.7) | 2 (2.5) | 33 (41.8) | 79 |
| PB | 181 (78.0) | 7 (3.0) | 44 (19.0) | 232 |
| PE | 385 (91.0) | 14 (3.3) | 24 (5.7) | 423 |
| PI | 111 (88.1) | 0 | 15 (11.9) | 126 |
| RN | 47 (82.5) | 1 (1.7) | 9 (15.8) | 57 |
| SE | 8 (24.2) | 0 | 25 (75.8) | 33 |
| **Southeast, n (%)** | **2059 (85.4)** | **75 (3.1)** | **278 (11.5)** | **2412** |
| ES | 24 (92.3) | 2 (7.7) | 0 | 26 |
| MG | 457 (85.1) | 19 (3.5) | 61 (11.4) | 537 |
| RJ | 193 (70.4) | 13 (4.7) | 68 (24.8) | 274 |
| SP | 1,385 (87.9) | 41 (2.6) | 149 (9.5) | 1,575 |
| **South, n (%)** | **570 (85.2)** | **18 (2.7)** | **81 (12.1)** | **669** |
| PR | 317 (90.3) | 8 (2.3) | 26 (7.4) | 351 |
| RS | 163 (84.0) | 8 (4.1) | 23 (11.9) | 194 |
| SC | 90 (72.6) | 2 (1.6) | 32 (25.8) | 124 |
| **Central-West, n (%)** | **428 (87.9)** | **13 (2.7)** | **46 (9.4)** | **487** |
| DF | 119 (90.8) | 0 | 12 (9.2) | 131 |
| GO | 155 (90.6) | 7 (4.1) | 9 (5.3) | 171 |
| MS | 109 (87.9) | 2 (1.6) | 13 (10.5) | 124 |
| MT | 45 (73.8) | 4 (6.6) | 12 (19.7) | 61 |

\*Missing or still in hospital.

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| --- | --- | --- | --- | --- | --- |
| Table S7: Distribution of survivors and non-survivors among pregnant and postpartum women with COVID-19 by region and state. Brazil, 2020. (N=5469). | | | | | |
| **Region/State** | **Survivors  (n=4349)** | **Non-survivors  (n=362)** | **Without outcome\*  (n=758)** | **Total (n=5469)** |
| **North, n (%)** | **575 (72.6)** | **52 (6.6)** | **165 (20.8)** | **792** |
| AM | 313 (81.9) | 19 (5.0) | 50 (13.1) | 382 |
| PA | 138 (68.7) | 22 (10.9) | 41 (20.4) | 201 |
| RO | 36 (40.0) | 3 (3.3) | 51 (56.7) | 90 |
| AP | 56 (91.8) | 1 (1.6) | 4 (6.6) | 61 |
| TO | 24 (52.2) | 3 (6.5) | 19 (41.3) | 46 |
| RR | 3 (42.9) | 4 (57.1) | 0 | 7 |
| AC | 5 (100) | 0 | 0 | 5 |
| **Northeast, n (%)** | **1301 (78.0)** | **116 (6.9)** | **251 (15.0)** | **1668** |
| AL | 21 (65.6) | 5 (15.6) | 6 (18.7) | 32 |
| BA | 157 (75.5) | 21 (10.1) | 30 (14.4) | 208 |
| CE | 357 (83.0) | 28 (6.5) | 45 (10.5) | 430 |
| MA | 49 (57.0) | 18 (20.9) | 19 (22.1) | 86 |
| PB | 243 (80.2) | 9 (3.0) | 51 (16.8) | 303 |
| PE | 326 (91.6) | 13 (3.6) | 17 (4.8) | 356 |
| PI | 75 (61.0) | 7 (5.7) | 41 (33.3) | 123 |
| RN | 64 (74.4) | 11 (12.8) | 11 (12.8) | 86 |
| SE | 9 (20.4) | 4 (9.1) | 31 (70.4) | 44 |
| **Southeast, n (%)** | **1514 (81.7)** | **142 (7.7)** | **196 (10.6)** | **1852** |
| ES | 10 (47.6) | 8 (38.1) | 3 (14.3) | 21 |
| MG | 180 (81.3) | 13 (6.2) | 18 (8.5) | 211 |
| RJ | 230 (64.2) | 55 (15.4) | 73 (20.4) | 358 |
| SP | 1,094 (86.7) | 66 (5.2) | 102 (8.1) | 1,262 |
| **South, n (%)** | **399 (87.9)** | **20 (4.4)** | **35 (7.7)** | **454** |
| PR | 165 (85.9) | 12 (6.2) | 15 (7.8) | 192 |
| RS | 139 (88.9) | 6 (3.7) | 15 (9.4) | 160 |
| SC | 95 (93.1) | 2 (2.0) | 5 (4.9) | 102 |
| **Central-West, n (%)** | **560 (79.9)** | **31 (4.4)** | **110 (15.7)** | **701** |
| DF | 216 (90.0) | 4 (1.7) | 20 (8.3) | 240 |
| GO | 155 (85.2) | 18 (9.9) | 9 (4.9) | 182 |
| MS | 51 (80.9) | 2 (3.2) | 10 (15.9) | 63 |
| MT | 138 (63.9) | 7 (3.2) | 71 (32.9) | 216 |
| **Missing** | - | 1 (50.0) | 1 (50.0) | 2 |

\*Missing or still in hospital.

# Table S8. Operational case definitions for epidemiological surveillance of SARIs since January 16, 2020.

|  |  |  |  |
| --- | --- | --- | --- |
| **Number** | **Date of issue** | **Operational definitions** | Source |
| 1 | January 16, 2020 | PRELIMINARY DEFINITION FOR SUSPECTED CASE IDENTIFICATION OF UNDETERMINED PNEUMONIA IDENTIFIED IN CHINA:  Identification of individuals of any age - who, as of December 29, 2019, have a history of:  -High fever (> 38ºC);  -Cough or difficulty breathing;  -One or more of the following exposures during the last 10 days before the onset of symptoms:  • Close contact (cared for, lived or had contact directly with respiratory secretions or fluids bodily injury) with a person who is suspected or probable case of Indeterminate Pneumonia identified in China;  • Travel history for an area with recent local transmission of Pneumonia Indeterminate identified in China. | https://antigo.saude.gov.br/images/pdf/2020/janeiro/15/Boletim-epidemiologico-SVS-01.pdf |
| 2 | January 22, 2020 | SUSPECTED CASE:  Clinical AND epidemiological criteria:  -Fever and respiratory symptoms (for example, cough and difficulty breathing) AND In the last 14 days before the onset of symptoms, travel history to an area with local transmission \*  OR  In the last 14 days before the onset of symptoms, have had close contact with a suspected case for 2019-nCoV  -Fever and respiratory symptoms (for example, cough and difficulty breathing) AND In the past 14 days, have had close contact with a laboratory-confirmed case for 2019-nCoV.  PROBABLE CASE:  Suspected case with an inconclusive test for 2019-nCoV OR with a positive test in a pan-coronavirus assay.  CONFIRMED CASE:  Individual with laboratory confirmation for 2019-nCoV, regardless of signs and symptoms.  DISCARDED CASE:  Suspected case with negative laboratory result for 2019-nCoV or laboratory confirmation for another etiologic agent. | https://antigo.saude.gov.br/images/pdf/2020/janeiro/23/Boletim\_epidemiologico\_SVS\_04.pdf |
| 3 | February 3, 2020 | SUSPECTED CASE:  \*Situation 1: Fever AND at least one sign or symptom respiratory (cough, difficulty breathing, flapping of the nasal wings among others) And historical of travel to an area with local transmission, according to WHO, in the last 14 days before the appearance of signs or symptoms;  OR  \*Situation 2: Fever AND at least one sign or respiratory symptom (cough, difficulty breathing) breathing, flapping of the nasal wings, among others)  AND close contact history of suspected case for coronavirus (2019-nCoV), in the last 14 days before the appearance of signs or symptoms;  OR  \*Situation 3: Fever OR at least one sign or respiratory symptom (cough, difficulty breathing) breathing, flapping of the nasal wings, among others) close contact of confirmed coronavirus case (2019-nCoV) in the laboratory, in the last 14 days before the appearance of signs or symptoms.  PROBABLE CASE:  Suspected case showing laboratory results inconclusive for 2019-nCoV OR with a positive test in the pan-coronavirus assay.  Confirmed case:  Individual with conclusive laboratory confirmation for the new Coronavirus (2019-nCoV), independent of signs and symptoms.  DISCARDED CASE:  If it fits the definition of a suspect and presents a negative laboratory result for  2019-nCoV OR laboratory confirmation for another etiological agent.  EXCLUDED CASE:  If notified that it does not fit the definition of a suspicious case. In this situation, the record will be deleted from the national database. | https://antigo.saude.gov.br/images/pdf/2020/fevereiro/04/Boletim-epidemiologico-SVS-04fev20.pdf |
| 4 | March 4, 2020 | SUSPECTED CASE:  \*Situation 1 - TRAVELER: a person with fever AND at least one of the signs or symptoms of respiratory problems (coughing, difficulty breathing, sputum production, nasal congestion or conjunctival, difficulty swallowing, sore throat, runny nose, O2 saturation <95%, signs cyanosis, flapping of the nose, intercostal circulation and dyspnoea) And with a history of travel to a country with sustained transmission OR area with local transmission in the past 14 days (figure 1); OR  \*Situation 2 - NEXT CONTACT: Person with fever OR at least one sign or  respiratory symptom (cough, difficulty breathing, sputum production, congestion nasal or conjunctival, difficulty swallowing, sore throat, runny nose, O2 saturation <95%, signs of cyanosis, flapping of the nose, intercostal circulation and dyspnoea) E contact history with suspected or confirmed case for COVID-19, in the last 14 days (figure 1).  PROBABLE CASE:  \*Situation 3 - HOME CONTACT: Person who maintained home contact with a case confirmed by COVID-19 in the last 14 days AND who has a fever OR at least one respiratory sign or symptom (cough, difficulty breathing, sputum production, nasal or conjunctival congestion, difficulty swallowing, sore throat, runny nose, saturation O2 <95%, signs of cyanosis, flapping of the nose, intercostal circulation and dyspnoea). In this situation, it is important to note the presence of other signs and symptoms such as fatigue, myalgia/arthralgia, headache, chills, red spots on the body, ganglia enlarged lymphatics, diarrhea, nausea, vomiting, dehydration and lack of appetite (figure 1).  CONFIRMED CASE:  '\*LABORATORY: A suspected or probable case with positive RT-PCR results in time real, by the Charité protocol.  '\*CLINICAL-EPIDEMIOLOGICAL: A suspected or probable case with a history of close contact or care with laboratory-confirmed case by COVID-19, presenting fever OR at least one of the respiratory signs or symptoms, in the last 14 days after contact, and for which it was not possible to carry out the specific laboratory investigation. | https://antigo.saude.gov.br/images/pdf/2020/marco/04/2020-03-02-Boletim-Epidemiol--gico-04---COE-COVID-19.pdf |
| 5 | April 3, 2020 | SUSPECTED CASE:  DEFINITION 1 – INFLUENZA-LIKE SYNDROME (ILS): An individual with an acute respiratory condition, characterized  feverish sensation or fever1, even if reported, accompanied by cough OR sore throat  OR runny nose OR difficulty breathing.  -IN CHILDREN: nasal obstruction is also considered, in the absence of another diagnosis  specific.  -IN ELDERLY: fever may be absent. Specific criteria should also be considered  aggravation such as syncope, mental confusion, excessive sleepiness, irritability and  inappetence.  DEFINITION 2 - SEVERE ACUTE RESPIRATORY SYNDROME (SARI): Flu syndrome with:  dyspnoea / respiratory distress OR persistent chest pressure OR minor O2 saturation  than 95% in room air OR bluish colouring of the lips or face.  -IN CHILDREN: in addition to the previous items, observe the nose-wing beats, cyanosis,  intercostal circulation, dehydration and lack of appetite.  CONFIRMED CASE:  BY LABORATORY CRITERIA: a suspected case of ILS or SARI with a test of:  • Molecular biology (real-time RT-PCR, detection of SARS-CoV2, influenza or VSR):  -Coronavirus disease 2019: with a detectable result for SARS-CoV2.  -Influenza: with a detectable result for influenza.  -Respiratory Syncytial Virus: with a detectable result for RSV.  • Immunological2 (rapid test or classic serology for antibody detection):  -Coronavirus disease 2019: positive for IgM and/or IgG antibodies.  In a sample collected after the seventh day of symptom onset.  BY CLINICAL-EPIDEMIOLOGICAL CRITERIA: a suspected case of ILS or SARI with:  History of close or home contact, in the last 7 days before the appearance of  symptoms, with a laboratory-confirmed case for COVID-19 and for which it was not possible  perform the specific laboratory investigation.  DISCARDED CASE OF CORONAVIRUS DISEASE 2019 (COVID-2019)  A suspected case of SG or SRAG with negative laboratory results for coronavirus (SARICOV-  2 not detectable by the RT-PCR method in real-time), considering the opportunity of  collection OR laboratory confirmation for another etiologic agent. | https://covid19-evidence.paho.org/handle/20.500.12663/1038 |
| 6 | August 5, 2020 | CONFIRMATION OF COVID-19 CASES – CRITERIA  CLINICAL  Case of ILS or SARI with clinical confirmation associated with anosmia (olfactory dysfunction) OR ageusia (gustatory dysfunction) without any other previous cause.  CLINICAL-EPIDEMIOLOGICAL  ILS or SARI cases with a history of close contact, in the 14 days before the appearance of signs and symptoms with a confirmed case for COVID-19.  CLINICAL IMAGE CRITERIA  Case of ILS or SARI or death due to SARI that could not be confirmed by laboratory criteria AND presenting at least one of the following tomographic changes:  (i)Peripheral, bilateral, frosted glass opacity, with or without consolidation or visible intralobular lines ("paving"), OR  (ii)Multifocal matte glass opacity with rounded morphology with or without consolidation or visible intralobular lines ("paving"), OR  (iii)Reverse halo sign or other findings of organizing pneumonia (seen later in the disease).  Note: according to the Brazilian College of Radiology, when there is an indication for tomography, the protocol is a High-Resolution Computed Tomography (HRCT), if possible, with a low dose protocol. The use of intravenous contrast media, in general, is not indicated, being reserved for specific situations to be determined by the radiologist.  LABORATORY CRITERIA  ILS or SARI case with a test of:  Molecular biology: detectable results for SARS-CoV-2 performed by the RT-PCR method in real-time.  Immunological: reagent result for IgM, IgA and/or IgG \* performed by the following methods:  -Immunoenzymatic assay (Enzyme-Linked Immunosorbent Assay - ELISA);  -Immunochromatography (rapid test) for antibody detection;  -Electrochemiluminescence Immunoassay (ECLIA),  Antigen search: reagent result for SARI-CoV-2 by the Immunochromatography method for antigen detection.  Observation: Consider the reagent IgG result as a confirmatory laboratory criterion only in individuals without previous laboratory diagnosis for COVID-19.  LABORATORY CRITERIA IN ASYMPTOMATIC INDIVIDUAL  Asymptomatic individuals with exam result:  Molecular biology: detectable results for SARS-CoV-2 performed by the RT-PCR method in real-time.  Immunological: reagent result for IgM and/or IgA performed by the following methods:  -Immunoenzymatic assay (Enzyme-Linked Immunosorbent Assay - ELISA);  -Immunochromatography (rapid test) for antibody detection.  \*ILS or SARI CASE NOT SPECIFIED  ILS or SARI case for which no other etiologic agent was identified OR it was not possible to collect / process clinical sample for laboratory diagnosis, OR it was not possible to confirm by clinical-epidemiological, clinical-image or clinical criteria.  \*ILS CASE DISCARDED FOR COVID-19  ILS case for which another etiologic agent was identified, confirmed by a specific laboratory method, excluding the possibility of a co-infection, OR confirmation by a non-infectious cause, attested by the responsible physician.  Observation: It should be noted that a negative examination for COVID-19 alone is not enough to rule out a case for COVID-19.  The registration of discarded cases from ILS to COVID-19 must be done in the e-SUS notifies. | https://coronavirus.saude.gov.br/guia-de-vigilancia-epidemiologica-covid-19; https://coronavirus.saude.gov.br/definicao-de-caso-e-notificacao |

# Figure S1 Live-births in Brazil in 2019, by state. Source: SINASC.

