COVID19_France_Regions

April 10, 2022

1 Analyse brute des donnÃl'es quotidiennes publiques covid19 France et rÃl'gions

Dernier Rapport au format pdf sur le site github

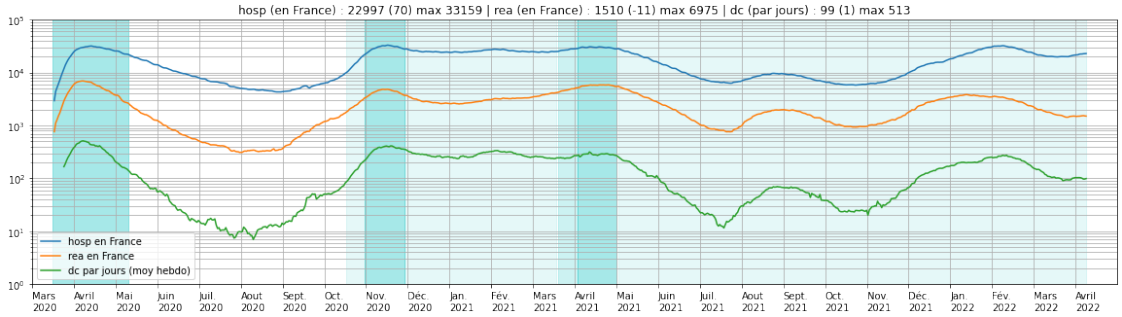
[1]:
```
run -i function.py
```

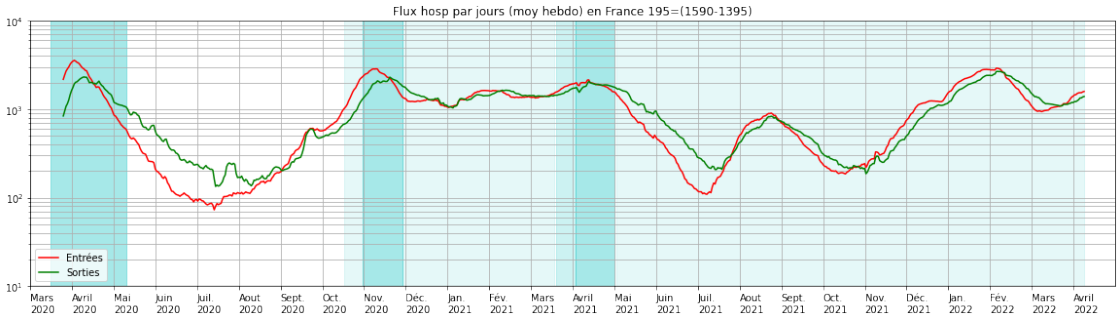
[2]:
```
run -i load.py
```

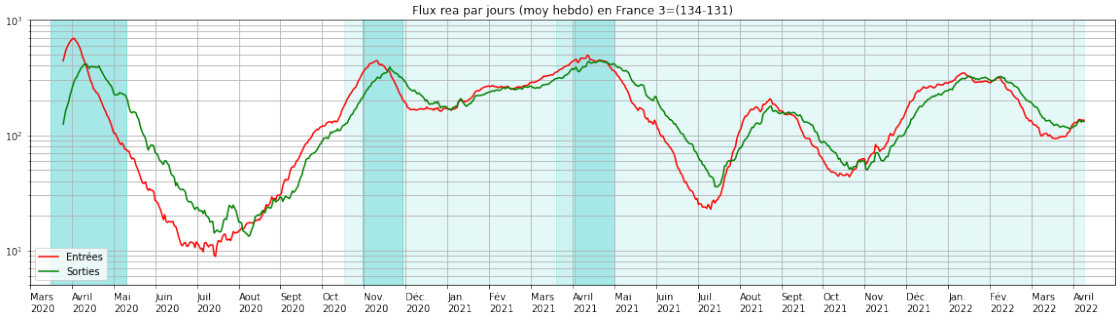
```
Read  ./RawData/covid-hospit-clage10-2022-04-09-19h01.csv
Read  ./RawData/covid-hospit-incid-2022-04-09-19h01.csv
```

1.1 Chiffres des hospitalisations et des dÃl'cÃís (CumulÃl's en France)

[3]:
```
DisplayFrance()
```



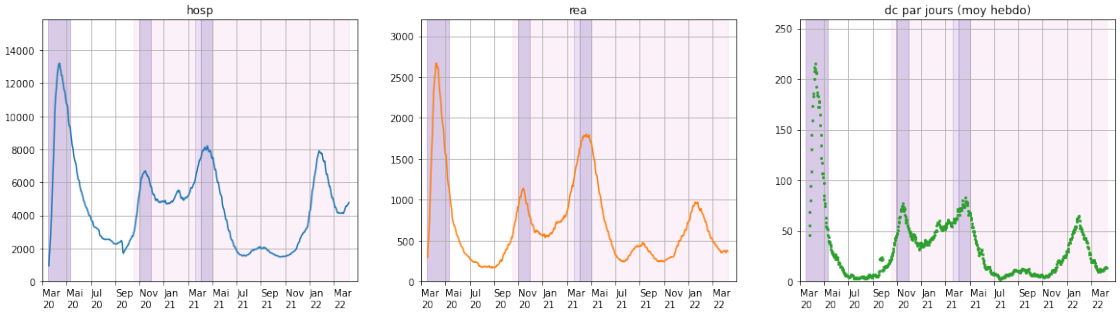




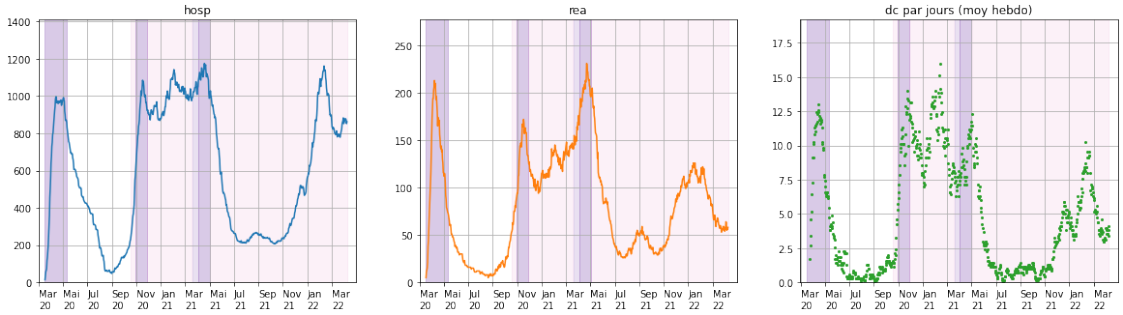
1.2 Chiffres des hospitalisations et des dÃľcÃĺs (par rÃľgions)

[ ]:
```
for reg in region:
    DisplayRegions(reg)
```

ILE DE FRANCE (0 Ãă 99+ ans)



CENTRE VAL DE LOIRE (0 Ãă 99+ ans)

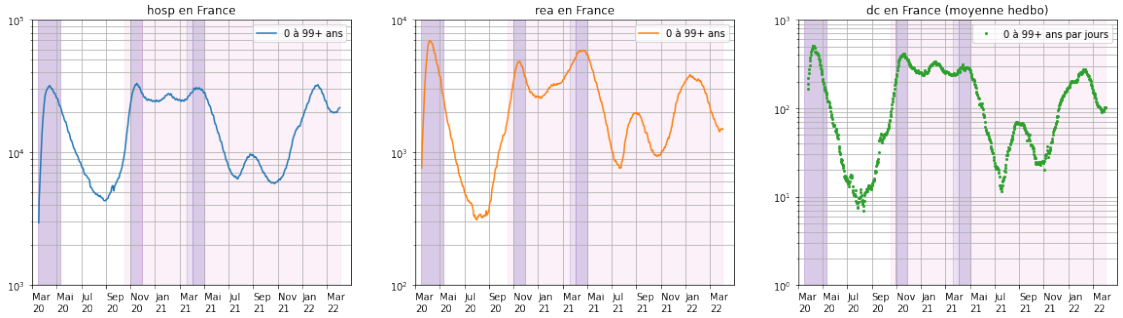


BOURGOGNE FRANCHE COMTE (0 Ãă 99+ ans)

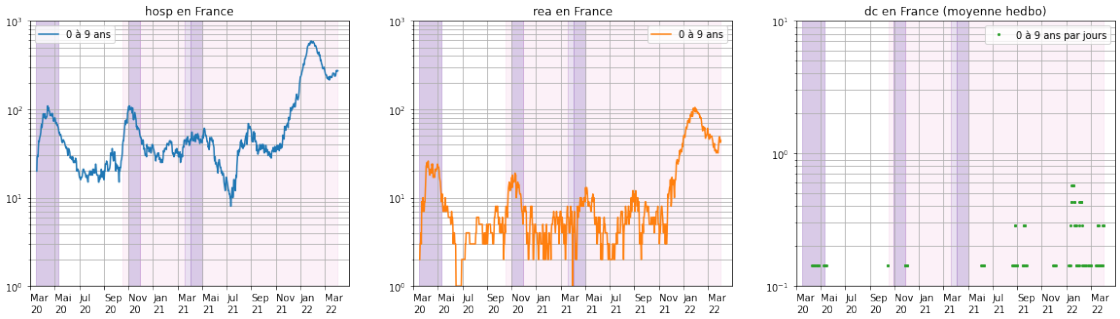
1.3 Chiffres des hospitalisations et des dÃľcÃĺs (par tranches d'age)

[10]:
```
for clage in trancheage:
    DisplayAge(clage)
```

```
0 Ãă 99+ ans
 Max   hosp : 33159 | 1Ãíre Vague :31990 | 2Ãíme Vague :33159 |
 Max   rea  :  6975 | 1Ãíre Vague : 6975 | 2Ãíme Vague : 5876 |
 Max   dc   :   513 | 1Ãíre Vague :  513 | 2Ãíme Vague :  411 |
 Total dc   : 109909 | 1Ãíre Vague: 18618 | 2Ãíme Vague :91291 |
```

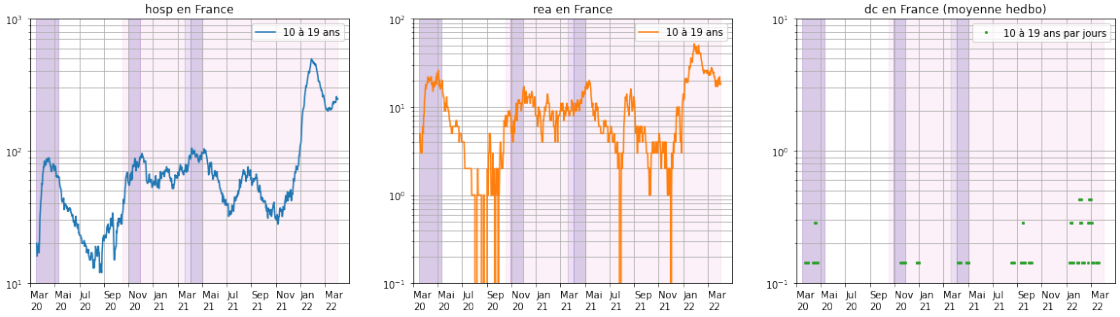



```
0 Ãă 9 ans
 Max   hosp :   593 | 1Ãíre Vague :  109 | 2Ãíme Vague :  593 |
 Max   rea  :   105 | 1Ãíre Vague :   26 | 2Ãíme Vague :  105 |
 Max   dc   :     0 | 1Ãíre Vague :    0 | 2Ãíme Vague :    0 |
 Total dc   :    26 | 1Ãíre Vague:     3 | 2Ãíme Vague :   23 |
```



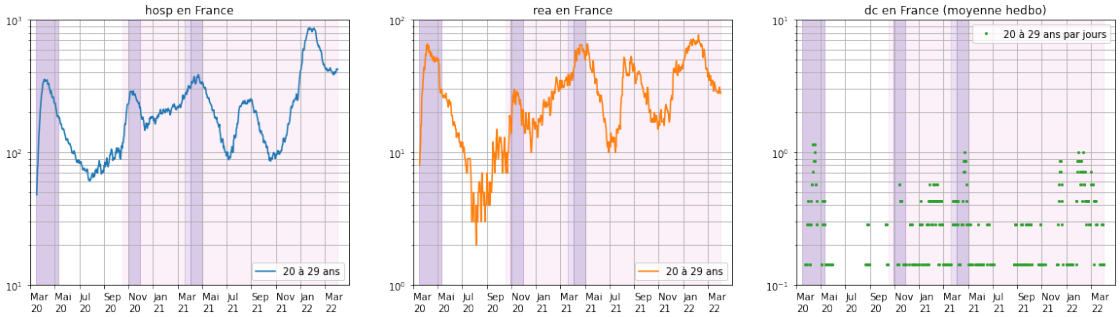
10 Ãă 19 ans

Max	hosp	:	498	1ÃÍre Vague :	89	2ÃÍme Vague :	498
Max	rea	:	52	1ÃÍre Vague :	26	2ÃÍme Vague :	52
Max	dc	:	0	1ÃÍre Vague :	0	2ÃÍme Vague :	0
Total	dc	:	22	1ÃÍre Vague:	3	2ÃÍme Vague :	19



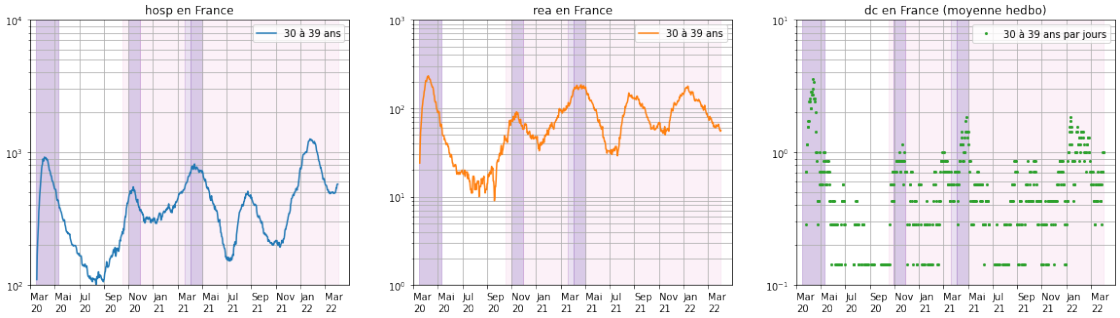
20 Ãă 29 ans

Max	hosp	:	868	1ÃÍre Vague :	357	2ÃÍme Vague :	868
Max	rea	:	77	1ÃÍre Vague :	66	2ÃÍme Vague :	77
Max	dc	:	1	1ÃÍre Vague :	1	2ÃÍme Vague :	1
Total	dc	:	123	1ÃÍre Vague:	19	2ÃÍme Vague :	103



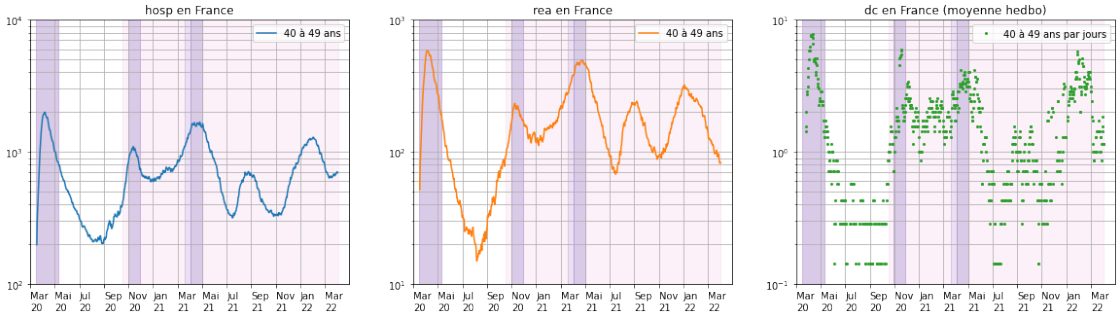
30 Ãă 39 ans

Max	hosp	:	1264	1ÃÍre Vague	: 923	2ÃÍme Vague	: 1264
Max	rea	:	233	1ÃÍre Vague	: 233	2ÃÍme Vague	: 184
Max	dc	:	3	1ÃÍre Vague	: 3	2ÃÍme Vague	: 1
Total	dc	:	392	1ÃÍre Vague:	88	2ÃÍme Vague	: 303



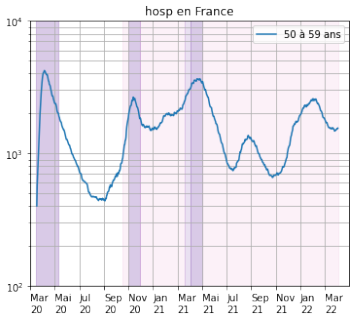
40 Ãă 49 ans

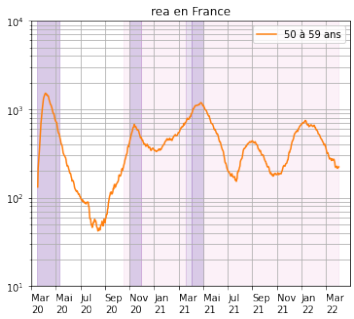
Max	hosp	:	2001	1ÃÍre Vague	: 2001	2ÃÍme Vague	: 1683
Max	rea	:	586	1ÃÍre Vague	: 586	2ÃÍme Vague	: 497
Max	dc	:	7	1ÃÍre Vague	: 7	2ÃÍme Vague	: 5
Total	dc	:	1159	1ÃÍre Vague:	228	2ÃÍme Vague	: 931

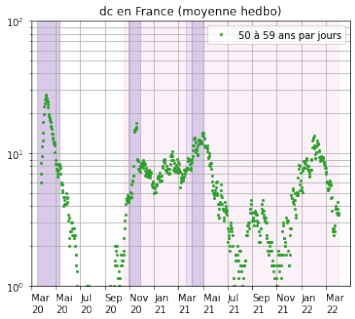


50 Ãă 59 ans

Max	hosp	:	4221	1ÃÍre Vague	: 4221	2ÃÍme Vague	: 3663
Max	rea	:	1519	1ÃÍre Vague	: 1519	2ÃÍme Vague	: 1189
Max	dc	:	27	1ÃÍre Vague	: 27	2ÃÍme Vague	: 16
Total	dc	:	4129	1ÃÍre Vague:	884	2ÃÍme Vague	: 3245

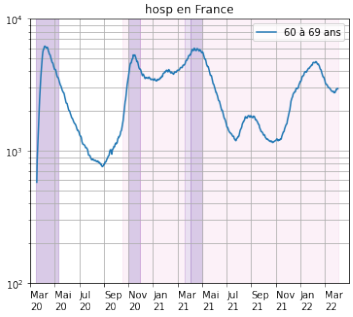


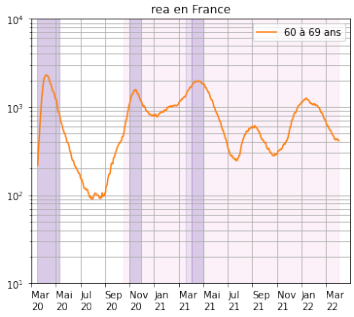


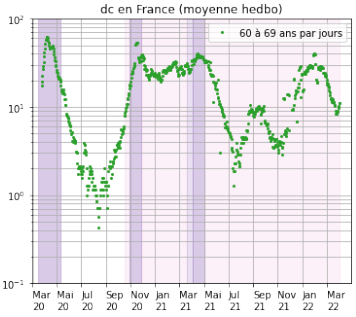


60 Ãă 69 ans

```
 Max   hosp :  6210 | 1ÃÍre Vague : 6210 | 2ÃÍme Vague : 5987 |
 Max   rea  :  2307 | 1ÃÍre Vague : 2307 | 2ÃÍme Vague : 1969 |
 Max   dc   :    62 | 1ÃÍre Vague :   62 | 2ÃÍme Vague :   54 |
 Total dc   : 12385 | 1ÃÍre Vague:  2214 | 2ÃÍme Vague :10171 |
```

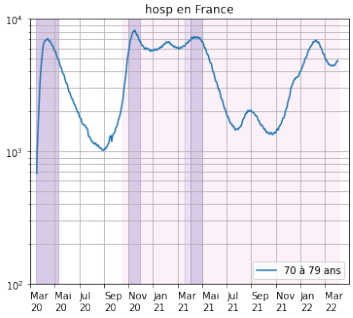


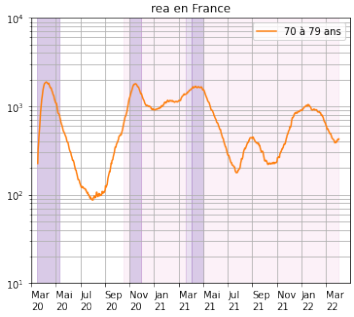


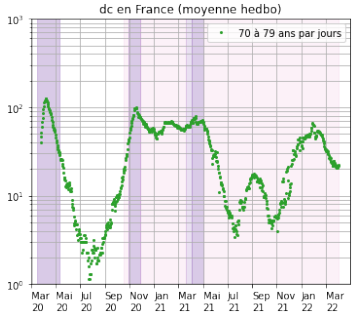


70 Ãă 79 ans

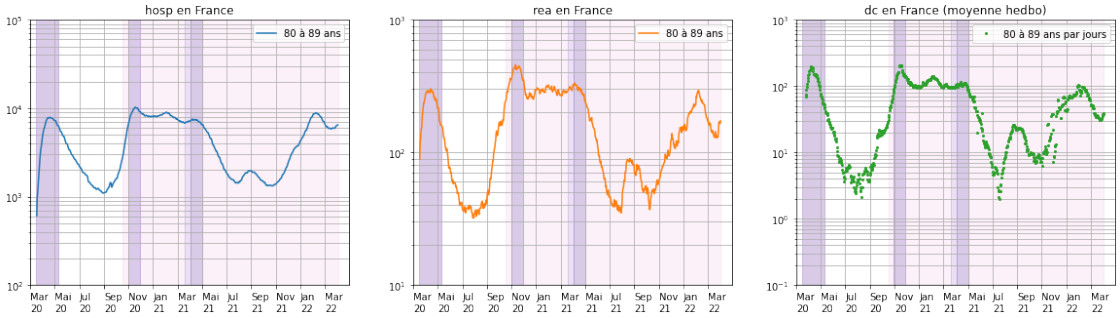
```
 Max   hosp :  8223 | 1ÃÍre Vague : 7096 | 2ÃÍme Vague : 8223 |
 Max   rea  :  1882 | 1ÃÍre Vague : 1882 | 2ÃÍme Vague : 1797 |
 Max   dc   :   125 | 1ÃÍre Vague :  125 | 2ÃÍme Vague :  100 |
 Total dc   : 24834 | 1ÃÍre Vague:  4168 | 2ÃÍme Vague :20666 |
```



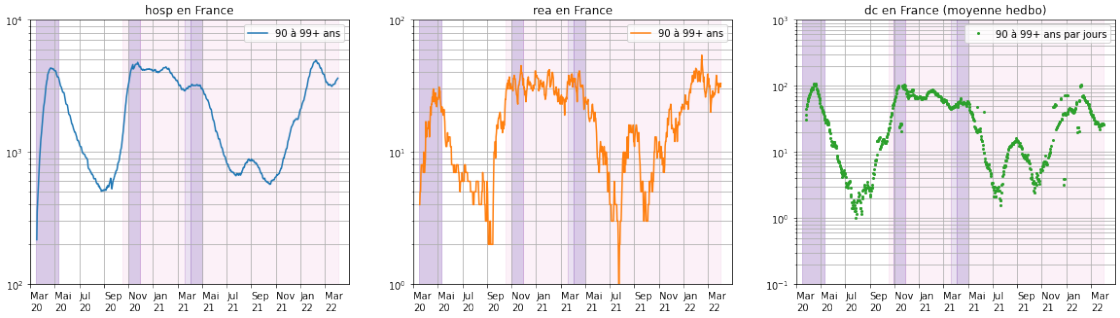




```
80 Ãă 89 ans
 Max   hosp : 10267 | 1ÃÍre Vague : 7886 | 2ÃÍme Vague :10267 |
 Max   rea  :   458 | 1ÃÍre Vague :  303 | 2ÃÍme Vague :  458 |
 Max   dc   :   209 | 1ÃÍre Vague :  197 | 2ÃÍme Vague :  209 |
 Total dc   : 41410 | 1ÃÍre Vague:  6843 | 2ÃÍme Vague :34567 |
```




```
90 Ãă 99+ ans
 Max   hosp :  4935 | 1ÃÍre Vague : 4324 | 2ÃÍme Vague : 4935 |
 Max   rea  :    54 | 1ÃÍre Vague :   31 | 2ÃÍme Vague :   54 |
 Max   dc   :   109 | 1ÃÍre Vague :  109 | 2ÃÍme Vague :  104 |
 Total dc   : 24877 | 1ÃÍre Vague:  4066 | 2ÃÍme Vague :20811 |
```



[7]:
```
CreateReport()
PushCommit()
```

2 Sources de donnÃl'es

https://www.data.gouv.fr/fr/datasets/donnees-hospitalieres-relatives-a-lepidemie-de-covid-19/

3 MÃl'thodologie

- Traitement du fichier de donnÃl'es brutes.
- ReprÃl'sentation des moyennes hebdomadaires comme donnÃl'es de base lissÃl'es.
- Affichage des diffÃl'rentes pÃl'riodes de couvre-feu et confinement.
- Versionning du dÃl'pÃt't pour la traÃğabilitÃl' et la reproductibilitÃl' sur un dÃl'pÃt't public.
- Interface pour les commentaires via github.

4 Quelques liens

- Euromomo (EuroMOMO is a European mortality monitoring activity, aiming to detect and measure excess deaths related to seasonal influenza, pandemics and other public health threats.) https://www.euromomo.eu/graphs-and-maps/
- CÃl'piDc (Centre d'Ãl'pidÃl'miologie sur les causes mÃl'dicales de DÃl'cÃÍs) https://opendata.idf.inserm.fr/cepidc/covid-19/index.html
- Avis de scientifiques CNRS, INSERM, Institut Pasteur, INRA, UniversitÃl'. Equipe bÃl'nÃl'vole et indÃl'pendante https://www.adioscorona.org/
- FranceInfo : "Suivez l'Ãl'volution de l'Ãl'pidÃl'mie en France et dans le monde" https://www.francetvinfo.fr/sante/maladie/coronavirus/infographies-covid-19-morts-hospitalisations-age-malades-l-evolution-de-l-epidemie-en-france-et-dans-le-monde-en-cartes-et-graphiques.html
- le suivi des variants en angleterre https://www.gov.uk/government/publications/covid-19-variants-genomically-confirmed-case-numbers/
- Un exemple de modÃl'lisation Ãl'pidÃl'mique par infÃl'rrence https://cloudapps.france-bioinformatique.fr/covidici/

5 Quelques refÃl'rences bibliographiques

- "Evaluation des stratÃl'gies vaccinales COVID-19 avec un modÃÍle mathÃl'matique populationnel" CÃl'cile Kiem, ClÃl'ment Massonnaud, Daniel Levy-Bruhl, Chiara Poletto, Vittoria Colizza, et al. 2020. pasteur-03087143 (23/12/2020)
- "Evolution of outcomes for patients hospitalized during the first SARS-CoV-2 pandemic wave in France. 2020.", NoÃl'mie Lefrancq, Juliette Paireau, NathanaÃńl HozÃl', NoÃl'mie Courtejoie, Yazdan Yazdanpanah, et al. hal-02946545 (23/09/2020)

- “Seroprevalence of SARS-CoV-2 among adults in three regions of France following the lockdown and associated risk factors: a multicohort study.” Carrat et al. 2020
- “Ready for a BASE jump? Do not neglect SARS-CoV-2 hospitalization and fatality risks in the middle-aged adult population” Lapidus et al, 2020 (07/11/2020)
- “Estimated date of dominance of VOC-202012/01 strain in France and projected scenarios” Sabbatini et al, 2021 (All reports available here)

5.1 Code Source et donnÃľes

- `function.py`
- `load.py`
- DonnÃľes dans le repertoire local /RawData

[ ]:

[ ]: