

1. Effectiveness of the vaccines against delta variant
2. Prevalence of the delta variant in the US and other countries.

Current vaccines have shown the effectiveness in protecting or minimizing the infection from delta variant. Data has been proved the most of hospitalizations is because of the vaccinations. According to CDC, fully vaccinated can still spread the delta variant. The research analysis also proves that J&J vaccines are highly effective against the delta variant.

[illegible]

81	United Kingdom	Delta	42138790.0	118792.50	136900660	3.143174e+11	2.096074e+11	1.047100e+11
82	United States	Delta	7867982.0	82327.79	147972243	1.379373e+12	8.107234e+11	6.005040e+11
83	Uruguay	Delta	0.0	0.00	84000	2.681663e+09	1.634366e+09	1.047277e+09
84	Zambia	Delta	9576.0	11400.00	56430	9.092789e+07	7.248631e+07	1.844158e+07
85	Zimbabwe	Delta	0.0	0.00	74592	7.920746e+08	5.325602e+08	2.595144e+08

86 rows × 14 columns



```
In [29]: import plotly.express as px
import pandas as pd

fig = px.choropleth(delta, locations="country",
                    color="variant",
                    locationmode='country names',
                    color_continuous_scale="Inferno",
                    title="Cases in the world",
                    height=600)

fig.show()
```

```
In [50]: fig=plt.figure()
ax=fig.add_axes([0,0,3,1])
plt.plot(delta['location'],delta['num_sequences_total'],'b--',label='delta variant')
#plt.plot(delta['country'],delta['total_vaccinations'],'r--',label='vaccinations')
```

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KeyError                                Traceback (most recent call last)
C:\ProgramData\Anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc(self, key, method, tolerance)
    2894         try:
-> 2895             return self._engine.get_loc(casted_key)
    2896         except KeyError as err:

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas\_libs\index.pyx in pandas._libs.index.IndexEngine.get_loc()

pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item()

pandas\_libs\hashtable_class_helper.pxi in pandas._libs.hashtable.PyObjectHashTable.get_item()
```

KeyError: 'location'

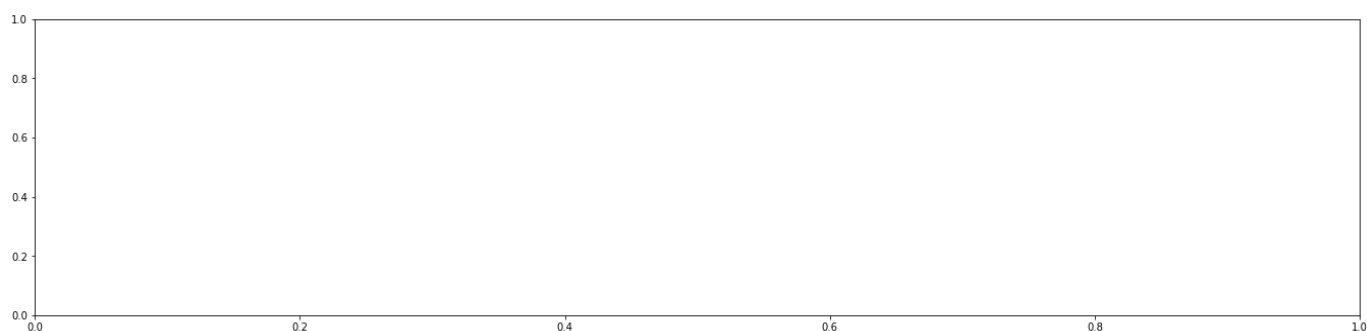
The above exception was the direct cause of the following exception:

```
KeyError                                Traceback (most recent call last)
<ipython-input-50-b872b0cab70b> in <module>
      1 fig=plt.figure()
      2 ax=fig.add_axes([0,0,3,1])
----> 3 plt.plot(delta['location'],delta['num_sequences_total'],'b--',label='delta variant')
      4 #plt.plot(delta['country'],delta['total_vaccinations'],'r--',label='vaccinations')

C:\ProgramData\Anaconda3\lib\site-packages\pandas\core\frame.py in __getitem__(self, key)
   2900         if self.columns.nlevels > 1:
   2901             return self._getitem_multilevel(key)
-> 2902         indexer = self.columns.get_loc(key)
   2903         if is_integer(indexer):
   2904             indexer = [indexer]

C:\ProgramData\Anaconda3\lib\site-packages\pandas\core\indexes\base.py in get_loc(self, key, method, tolerance)
   2895         return self._engine.get_loc(casted_key)
   2896     except KeyError as err:
-> 2897         raise KeyError(key) from err
   2898
   2899     if tolerance is not None:
```

KeyError: 'location'



In [30]: delta

Out[30]:

	index	country	date_x	variant	num_sequences	perc_sequences	num_sequences_total	iso_code	date_y	total_vaccinations	...	p
1271	31367	Argentina	2020-05-11	Delta	0.0	0.0	149	ARG	2021-01-21	265724.0	...	
1272	31368	Argentina	2020-05-11	Delta	0.0	0.0	149	ARG	2021-01-22	279602.0	...	
1273	31369	Argentina	2020-05-11	Delta	0.0	0.0	149	ARG	2021-01-23	288064.0	...	
1274	31370	Argentina	2020-05-11	Delta	0.0	0.0	149	ARG	2021-01-24	292023.0	...	
1275	31371	Argentina	2020-05-11	Delta	0.0	0.0	149	ARG	2021-01-25	292386.0	...	
...	...	...	...	...	...	...	...	...	...	...	...	
302151	6948443	Zambia	2021-05-31	Delta	84.0	100.0	84	ZMB	2021-08-01	438885.0	...	
302152	6948444	Zambia	2021-05-31	Delta	84.0	100.0	84	ZMB	2021-08-02	441113.0	...	
302153	6948445	Zambia	2021-05-31	Delta	84.0	100.0	84	ZMB	2021-08-03	444574.0	...	
302154	6948446	Zambia	2021-05-31	Delta	84.0	100.0	84	ZMB	2021-08-04	454406.0	...	
302155	6948447	Zambia	2021-05-31	Delta	84.0	100.0	84	ZMB	2021-08-05	465760.0	...	

197029 rows × 21 columns



In [ ]:

In [ ]:

