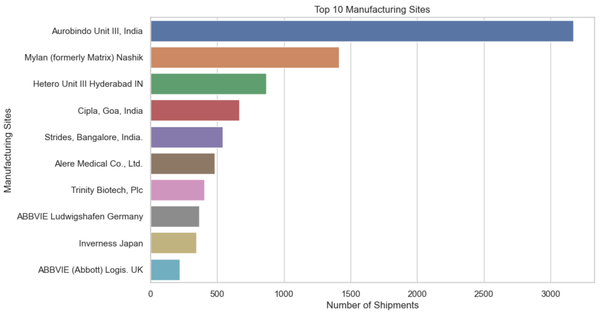
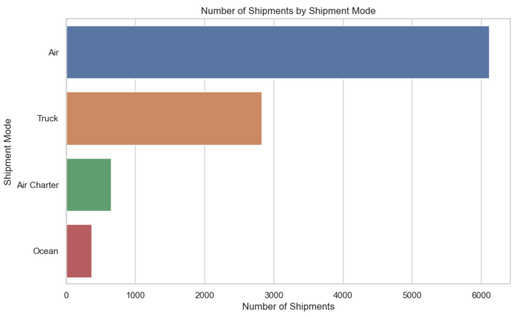
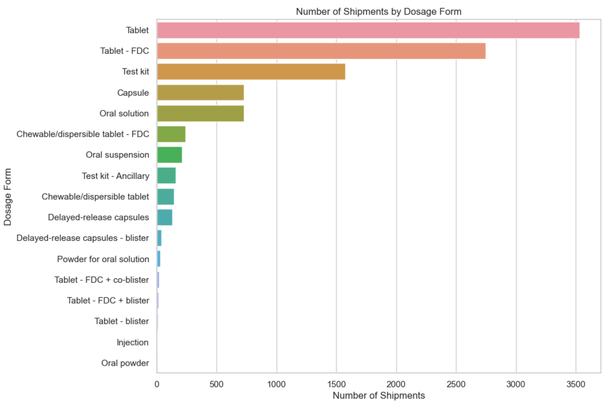
In [27]:
```
import matplotlib.pyplot as plt
import seaborn as sns
import pandas as pd

#Display configuration
sns.set(style="whitegrid")

data = pd.read_csv("/Users/matthieulambert/Desktop/Portfolio Data analysis/Shipment pricing - HIV:SIDA Healthcare/Supply_Chain_Shipment_Pricing_Dataset_20240210.csv")
data.head()

#Top10 manufacturing sites repartition
top_manufacturing_sites = data['manufacturing site'].value_counts().head(10).index
data_top_manufacturing = data[data['manufacturing site'].isin(top_manufacturing_sites)]
plt.figure(figsize=(10, 6))
sns.countplot(y='manufacturing site', data=data_top_manufacturing, order=top_manufacturing_sites)
plt.title('Top 10 Manufacturing Sites')
plt.xlabel('Number of Shipments')
plt.ylabel('Manufacturing Sites')
plt.show()
```



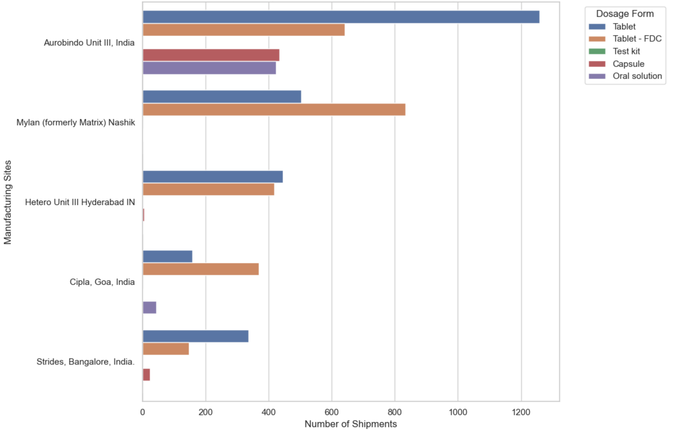
In [28]:
```
#Major shipments modes

plt.figure(figsize=(10, 6))
sns.countplot(y='shipment mode', data=data, order=data['shipment mode'].value_counts().index)
plt.title('Number of Shipments by Shipment Mode')
plt.xlabel('Number of Shipments')
plt.ylabel('Shipment Mode')
plt.show()
```



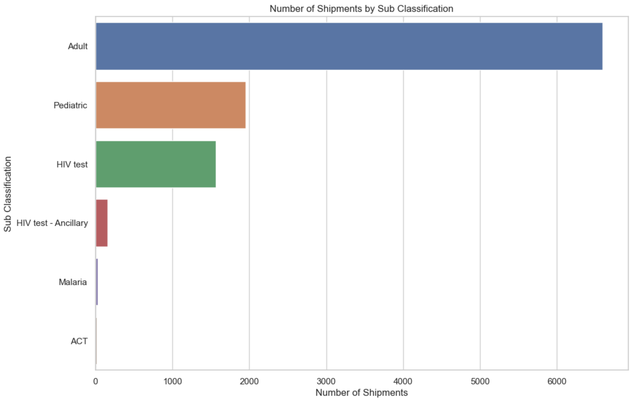
In [29]:
```
#Number of shipments by dosage form

plt.figure(figsize=(10, 8))
sns.countplot(y='dosage form', data=data, order=data['dosage form'].value_counts().index)
plt.title('Number of Shipments by Dosage Form')
plt.xlabel('Number of Shipments')
plt.ylabel('Dosage Form')
plt.show()
```



In [32]:
```
#Repartition of top 5 dosage forms produced by top 5 repartition site
top_5_manufacturing_sites = data['manufacturing site'].value_counts().head(5).index
data_top_5_manufacturing = data[data['manufacturing site'].isin(top_manufacturing_sites)]

top_5_dosage_forms = data['dosage form'].value_counts().head(5).index
data_top_5_dosage_forms = data_top_5_manufacturing[data_top_5_manufacturing['dosage form'].isin(top_5_dosage_forms)]

plt.figure(figsize=(12, 8))
sns.countplot(y='manufacturing site', hue='dosage form', data=data_top_5_dosage_forms,
              order=top_5_manufacturing_sites, hue_order=top_5_dosage_forms)
plt.title('Top 5 Dosage Forms Produced by Top 5 Manufacturing Sites')
plt.xlabel('Number of Shipments')
plt.ylabel('Manufacturing Sites')
plt.legend(title='Dosage Form', bbox_to_anchor=(1.05, 1), loc='upper left')
plt.tight_layout()
plt.show()
```



In [35]:
```
#number of shipments distributed according to subcassification

plt.figure(figsize=(12, 8))
sns.countplot(y='sub classification', data=data, order=data['sub classification'].value_counts().index)
plt.title('Number of Shipments by Sub Classification')
plt.xlabel('Number of Shipments')
plt.ylabel('Sub Classification')
plt.show()
```



In [ ]: