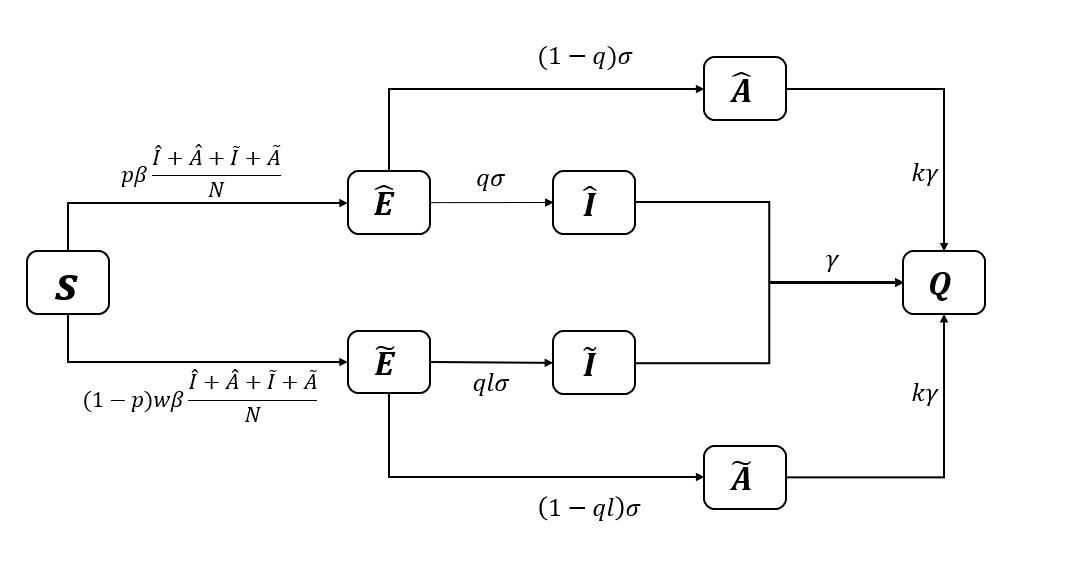
疫苗分配

## 模型



### 传染病方程

（1）

传播部分

转移部分；

接着，计算下一代矩阵K：



得到K的谱半径为基本再生数R0：

### R的变化dR

取其中i被j组的传播做ij的传播矩阵。

则传播部分T

转移部分



所以i和j的R就是

如果i年龄段p变化，就是对发生扰动，则导致发生变化，所以i年龄段势必会引起总体传播的变化，量化为如下：

#### 疫苗分配算法[6]

1. Divide the vaccine stock into units as.
2. For each group ***i*** {

For each group ***j*** {

Calculate

}

Calculate

}

1. For each unit of vaccine to :

Find max ;

Allocate vaccine to group ***i*** ;

Calculate the vaccinate proportion ;

Change the vaccinated proportion of group ***i*** ;

Calculate the new of group ***i*** and update;

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