Analysis of the Increase Rate of Fully Vaccination at Different Ages

Chart, line chart

Description automatically generated

This plot shows the proportion of full vaccination in six cities (Revere, Chelsea, Springfield, Everett, Newton, and Wellesley).

Based on this plot, June 2021 is a turning point, the date from which the growth rate of fully vaccinated starts to slow down, especially for Revere, Everett, Chelsea, Wellesley, and Newton. In December 2021, Newton's fully vaccinated There is a noticeable increase in the proportion. Overall, Newton had the highest full vaccination rate and Springfield had the lowest full vaccination rate. Chelsea's fully inoculated growth rate was slightly higher than Everett, Wellesley, and Revere's.

Chart, line chart

Description automatically generated

This graph shows the change in the proportion of fully vaccinated children and adolescents aged 0-19 in six cities. From this graph, we can see that around April 10, 2021, the proportion of people aged 0-19 in Wellesley and Newton who are fully vaccinated suddenly increased. Around April 25, 2021, Revere, Chelsea and Everett had a significant increase in the proportion of fully vaccinated people aged 0-19. But in general, the proportion of people aged 0-19 who was fully vaccinated by May 2021 is less than 1%, which is very small.

Chart, line chart

Description automatically generated

This graph shows the change in the proportion of fully vaccinated adults aged 20-49 in six cities. From this picture, we can see that during April 2021 to June 2021, except for Springfield, the proportion of fully vaccinated cities has increased significantly. Only Wellesley's percentage of fully vaccinated people remained basically the same after that, and did not continue to increase. After June 2021, Newton, Chelsea, Everett, and Revere continued to keep a slow increase in the proportion of fully vaccinated.

Chart

Description automatically generated

This graph shows the change in the proportion of fully vaccinated people aged 50-65 in six cities. From this graph, we can see that from April 2021 to May 2021, the proportion of fully vaccinated in these six cities has increased significantly. Springfield has a higher growth rate than the other five cities after June 2021.

Chart, line chart

Description automatically generated

This graph shows the change in the proportion of fully vaccinated people aged 65-75+ in six cities. From this graph, we can see that from March 2021 to April 2021, the proportion of fully vaccinated in all cities has increased significantly. Springfield and Chelsea have higher growth rates than the other four cities after April 2021.

By separately analyzing the growth and changes in the proportion of complete vaccinations in the four age groups, we can clearly find that people in the 65-75+ age group will receive a large number of vaccinations from March 2021 to April 2021, and people in the 50-65 age group received a large number of vaccinations from April 2021 to May 2021. In the May and June of 2021, a large number of people in the 20-49 age group was vaccinated in mid-June 2021. Across the age groups, Newton had the greatest percentage of complete vaccinations among the six cities, and Springfield had the lowest percentage of complete vaccinations. However, the vaccination rate of 50-75+ older people in Springfield is the highest among the six cities. Chelsea and Revere have similar rates of full vaccination and growth rates, but in the 65-75+ age group, Chelsea have higher rates of complete vaccination and growth rates than Revere.