

2024 Bi H1 Q6

Section: DNA and the Genome

Topic: Immune System and Vaccination

Question Summary:

The graph shows the percentage of children vaccinated against measles and the number of confirmed measles cases in a region of the UK between 2006 and 2020. The question asks for the number of confirmed cases of measles one year after the highest vaccination percentage.

Worked Solution:

- The highest vaccination percentage occurs around 2019–2020, reaching approximately 93–94%.
- One year after this peak (2020), the number of confirmed cases can be read from the graph as approximately 1720.
- This shows that despite high vaccination rates, outbreaks can still occur due to incomplete coverage or local variations in immunity.

Final Answer: **D** (1720.0).

Revision Tips:

- Read carefully: 'one year after the highest vaccination percentage' means shift one year along the x-axis.
- High vaccination rates protect populations through herd immunity.

- Occasional outbreaks may still occur if vaccination coverage is uneven.