1.10 The Cholera Epidemic of 1854 and John Snow's Broad Street Investigation: 30-minute Pack

EDEXCEL 1HI0 · about 30 minutes

Total Marks

Name: _____ Date: ____ / ____ / _____

Answer ALL questions. Write in full sentences for Questions 1 and 2. You are advised to spend about 30 minutes on this pack. The final 4 marks on Question 2 are for spelling, punctuation, grammar and use of specialist terminology.

1 Explain why John Snow's Broad Street investigation was important in the development of public health practice in Britain.

You may use the following in your answer:
- Snow's use of mapping and case enquiries to identify a local source
- the immediate effect of removing the Broad Street pump handle

You must also use information of your own.

(Total for Question 1 is 12 marks)

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2 'John Snow's Broad Street investigation proved that cholera was spread through contaminated water, and so it changed public health policy immediately.' How far do you agree? Explain your answer. The final 4 marks are for spelling, punctuation, grammar and the use of specialist terminology.

(Total for Question 2 is 20 marks)

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Mark scheme · 1.10 The Cholera Epidemic of 1854 and John Snow's Broad Street Investigation: 30-minute Pack

Question 1

Level 1 Identifies one or two simple reasons why Snow's investigation mattered, with little or no supporting detail. **1-3**

Level 2 Identifies and begins to explain one or two reasons, supported by some accurate detail and showing some links between cause and effect. **4-6**

Level 3 Explains several reasons clearly, each supported by accurate and relevant detail, and begins to place Snow's work in a wider context. **7-9**

Level 4 Provides a well-developed explanation of several reasons why Snow's investigation was important, supported throughout by precise and accurate detail and showing clear links between Snow's methods, immediate effects and longer term influence on public health practice. **10-12**

Indicative content:

- Snow introduced systematic data collection and mapping to identify the likely source of an outbreak, an approach that underpins modern epidemiology.
- His local enquiries and case histories provided evidence linking individuals to a water source, showing how combining qualitative and spatial evidence strengthens causal claims.
- The removal of the Broad Street pump handle provided a practical intervention that coincided with a fall in local cases, demonstrating the value of targeted public health action.
- Although Snow's waterborne theory did not immediately overturn miasma thinking, his methods influenced later sanitary investigators and public health officials who began to use evidence-based approaches.
- Snow's work helped shift attention to the role of contaminated water supplies, contributing to later improvements in water and sewage provision even before germ theory was fully accepted.
- A top answer will link Snow's methods and immediate success with the gradual change in public health practice, explaining both direct and indirect consequences rather than simply asserting importance.

Question 2

Level 1 Shows limited relevant knowledge and offers a simple, unbalanced judgement with little supporting evidence. **1-4**

Level 2 Shows some relevant knowledge and offers a partly developed judgement, but the argument lacks depth or balance. **5-8**

Level 3 Shows good relevant knowledge, evaluates both the extent of Snow's proof and the speed of policy change, and reaches a supported judgement with some analysis. **9-12**

Level 4 Shows precise and well-selected knowledge, gives a balanced evaluation of the strength of Snow's evidence and the pace of change in public health policy, and reaches a sustained, well-supported judgement, using specialist terms accurately. **13-16**

Indicative content:

- Arguments agreeing with the statement: Snow's mapping and enquiries provided strong local evidence that the Broad Street pump was linked to the outbreak, and removal of the pump handle coincided with a fall in local cases, showing immediate practical effect.
- Snow presented a clear causal explanation based on spatial and case data, which anticipated later epidemiological methods and focused attention on water contamination as a likely route of transmission.
- Arguments disagreeing with the statement: Snow did not identify a causal microbe, and many medical professionals continued to believe miasma theory, so his findings did not lead to immediate, nationwide policy change.
- Acceptance of Snow's ideas was slow; broader policy shifts in water and sewage infrastructure developed over subsequent decades and were influenced by many factors beyond the Broad Street case.
- Balanced points: Snow's work was an important early demonstration that localised, evidence-based interventions could work, but the change to public health policy was gradual, dependent on further evidence and institutional shifts rather than on a single study.
- A strong answer will weigh Snow's clear local success against the limited immediate impact on national medical consensus and policy, and will explain why the case influenced later developments without producing an immediate nationwide policy transformation.

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