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PUBH 1142 – Week 3 Quiz

1. What is the primary goal of data anonymization?

* The primary goal of data anonymization is to protect the identities of individuals who provide their data for analysis or research.

2. What is the Havasupai Tribe case about?

* Researchers from Arizona State University used blood provided by the Havasupai Tribe for more than what the Tribe had consented to use it for. The research being conducted without consent also went against their cultural and spiritual beliefs.

3. What was the largest health data breach in history?

* The largest health data breach in history was the Anthem Insurance leak. Nearly 80 million people had their health information leaked due to the cyber-attack.

4. What is the pulse oximeter controversy about?

* The controversy involves the findings that the pulse oximeter was 3 times more likely to miss hypoxemia in Black patients when compared to White patients. This was because the algorithms it uses were taken from exclusively White test subjects.

5. What is the role of an Institutional Review Board (IRB) in research?

* The IRB review, monitor, and approve research involving human subjects.

6. What is the difference between spreadsheet software and database software for health data management?

* Health data in spreadsheet software can be meddled with in their cells, whereas health data in database software come from external sources.

7. What is a conflict of interest in public health research?

* A conflict of interest is when a person or organization has an underlying motivation when conducting research. This conflict of interest can be personal, financial, political, academic, or organizational.

8. What is informed consent in the context of health data collection?

* Informed consent is the requirement that individuals are provided with enough information to make an educated decision about their willingness to provide their health data. The information provided includes what their data would be used for and who will have access to it.

9. What is data masking in the context of de-identification of health data?

* Data masking replaces identifiable names with random letters or by removing them entirely.

10. What is the principle of 𝑘-anonymity in the context of de-identification of health data?

* The principle of *k*-anonymity aggregates data into groups of the variable *k* records, which prevents individuals from being singled out.

11. What is the main concern about conflicts of interest in public health research?

* Conflicts of interest in public health research can lead to the integrity of research being disrupted, uprooting the validity of the research’s findings, and alienating the public when it comes to the trust of health information.

12. What is the first step in managing conflicts of interest in public health research?

* The first step to manage conflicts of interest in public health research is transparency of researchers so that any conflicts of interest are apparent.

13. What is the role of independent oversight in managing conflicts of interest in public health research?

* Independent oversight provides an additional layer of scrutiny to ensure conflicts of interest do not impact public health research.

14. What is one strategy for mitigating conflicts of interest in public health research?

* One strategy to mitigate conflicts of interest in public health research is avoidance, which means that the researcher chooses not to involve themself in research they know may be a conflict of interest to them.

15. What is the potential impact of not properly managing conflicts of interest in public health research?

* Improperly managing conflicts of interest in public health research leads to bias in research, loss of public trust, and damage to the integrity of research.