Can You Have Your Cake and Eat It Too? Sharing Healthcare Data Without Compromising Privacy and Confidentiality

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[http://aisel.aisnet.org/amcis2005/294](http://aisel.aisnet.org/amcis2005/294)
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Abstract

One major concern with electronic healthcare data relates to preserving the privacy and confidentiality of such data. The recent Health Insurance Portability and Accountability Act (HIPAA) of 1996 has established national standards for the protection of health information. The National Institutes of Health also requires healthcare researchers to share data regarding their subjects, but without compromising privacy or confidentiality. In this study, we develop a new technique that can be used to effectively mask healthcare data. The technique guarantees that the results of most (parametric) statistical analyses performed on the masked data will be identical to that perform on the original data. The application of the new technique will allow healthcare researchers and healthcare providers to share sensitive data without compromising privacy and confidentiality.

Key Words: Confidentiality, Data sharing, Disclosure, Privacy, Healthcare, HIPAA

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