# Article information:

Conditional generation of medical time series for extrapolation to underrepresented populations | PLOS Digital Health  
<https://journals.plos.org/digitalhealth/article?id=10.1371/journal.pdig.0000074>

# Article summary:

1. Electronic health records (EHRs) have increased the availability of longitudinal healthcare data, leading to advances in understanding health and disease.

2. HealthGen is a new approach for the conditional generation of synthetic EHRs that maintains an accurate representation of real patient characteristics, temporal information and missingness patterns.

3. Synthetic conditionally generated EHRs could help increase the accessibility of longitudinal healthcare data sets and improve the generalisability of inferences made from these data sets to underrepresented populations.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a detailed overview of the HealthGen approach for generating synthetic electronic health records (EHRs). The authors provide evidence that their approach is more faithful to real patient EHRs than current state-of-the-art methods, and that augmenting real data sets with conditionally generated cohorts of underrepresented subpopulations can significantly enhance the generalisability of models derived from these data sets to different patient populations.

The article appears to be well researched and supported by evidence, however there are some potential biases that should be noted. For example, the authors do not explore any counterarguments or alternative approaches to generating synthetic EHRs, nor do they discuss any potential risks associated with using such methods. Additionally, while they note that access to EHRs is often restricted due to their sensitive nature, they do not provide any further discussion on this issue or how it might affect their proposed approach.

In conclusion, while this article provides a detailed overview of HealthGen as an approach for generating synthetic EHRs, it does not explore any potential risks or alternative approaches which could lead to a more comprehensive understanding of this topic.

# Topics for further research:

* Alternative approaches to generating synthetic EHRs
* Potential risks associated with synthetic EHRs
* Access to EHRs and data privacy
* Augmenting real data sets with synthetic cohorts
* Enhancing generalisability of models derived from data sets
* Generating synthetic EHRs for underrepresented subpopulations

# Report location:

<https://www.fullpicture.app/item/3ec0a05b79f50c36a3babcfe80a0677f>