Healthcare data is the emerging force to push ahead smarter clinical solutions. However, unforeseen challenges like unmanaged massive data and costly access to it make it difficult for domain experts to easily derive actionable insights.

In collaboration with a local diagnostic service provider, we designed MetricScalpel, a web-based visualization tool to help people quickly look into the real-life diagnostic data in the local community.

The tool enables swift exploration into the multivariate diagnostic data sets from different sources and facilitates data selection/subsetting for deeper analysis. It can be used to reveal overlooked health conditions on almost any level without requirement of heavy technical knowledge. Such design makes it easier to be accepted by a wider user group in the healthcare related organizations.

It was proven to well serve the domain experts in validating pre-exist hypotheses in cohort analysis as well as revealing undiscovered patterns of health conditions in the local community.

External evaluation shows operation cost was remarkably confined as domain experts were assisted with direct and intuitive access to the relevant data in need.