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EDITORIAL

Wishing You a Safe and Happy Festive Season

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Dear Readers,

It is with great pleasure that we welcome our final issue for 2017, with a selection of articles highlighting innovative approaches and mobile technology-based practices that are improving healthcare around the world. This has been an exceptional year for JMTM and we would like to take an opportunity to thank our readership for their outstanding contributions, as the quality and volume of our submissions continues to expand.

It is worth noting the demand for connected devices in healthcare continues to accelerate rapidly, and in particular it is worth recognising the potential that smart device ecosystems have, otherwise known as an "Internet of Things" (IoT), to add value and change how and where health data is generated, collected and analysed.

Evidence-based medicine has traditionally relied on information from the published literature in combination with clinical to formulate an accurate diagnosis, and confer a probable disease course, prognosis and treatment. Predictive analytics – in contrast to the bulk of research that is focused on identifying disease risk factors and prognosis for a general population – uses statistical methods and learning models to analyse large amounts of general population data together with individual data (such as genotype from genome sequencing) to create prediction profiles for individuals. This approach incorporates a larger number of comprehensive assessment tools and a greater scope of information, and statistical models that can update as new information comes to light. Predictive analytics may also empower researchers to find answers from the vast sets of data available that were previously possible only through comprehensive longitudinal studies.[1]

The value of prediction lies in detecting disease before it manifests and brings harm to patients, and by mitigating harm through adequate preparation and prevention of complications. In the near future, we may see Big Data (characterized by volume, variety, velocity, and veracity) being combined with an individual's real-time exposome data collected from wearables or household sensors to enable precision medicine on a scale which has not been feasible previously.

In this issue, we present original articles investigating the utility of mobile technology in the rehabilitation setting and revisit how smartphone applications are changing practices in medicine, from the way take attendance in lectures, to how we can maximise efficiencies in the operating theatre. We revisit the applications and success of a low-cost 3D-printed smartphone ophthalmoscope from Myung et al of Stanford University (first published in JMTM) and welcome a commentary perspective on a framework for the ethical design of mobile health interventions from Brager et al at Johns Hopkins University.[2]

References

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