

Ref No	Research paper	Authors	Findings
1	Health Big Data Analytics: A Technology Survey	Gaspard Harerimana, Beakcheol Jang, Jong Wook Kim	Because of the vast availability of data, there has been an additional focus on the health industry and an increasing number of studies that aim to leverage the data to improve healthcare have been conducted. Health data are growing increasingly large, and more complex, and its sources have increased tremendously to include computerized physician order entry, electronic medical records, clinical notes, medical images, cyber-physical systems, medical Internet of Things, genomic data, and clinical decision support systems. New types of data from sources like social network services and genomic data are used to build personalized healthcare systems, hence health data are obtained in various forms, from varied sources, contexts, and technologies, and their nature can impede a proper analysis. Any analytical research must overcome these obstacles to mine data and produce meaningful insights to save lives. In this paper, investigate the key challenges, data sources, techniques, technologies, as well as future directions in the field of big data analytics in healthcare. provided a do-it-yourself review that delivers a holistic, simplified and easily understandable view of various technologies that are used to develop an integrated health analytic application.
2	Saving Lives and Money with Smarter Hospitals	Leslie Mertz	One of the medical institutions that got an early start on smart hospital technology is the Veterans Administration (VA), according to Keith Salzman, M.D. (Figure 1), who has experience with both the U.S. Department of Defense (DoD) and the VA, and is now the chief medical information officer for IBM's U.S. Federal Healthcare Practice, which addresses the technology needs of American public-sector health institutions. "In 2004, I started working with informatics at Madigan Army Medical Center in Tacoma, Washington. We had received a National Defense Authorization Act grant to demonstrate interoperability between the DoD and VA health care in terms of sharing both data and documents," he says. It was a big undertaking because DoD and VA health care delivery systems have patient populations that are equivalent to the size of Kaiser Permanente—one of the biggest health care delivery organizations in the country.
3	Emerging Technologies for Next Generation Remote Health Care and Assisted Living	IJAZ AHMAD, ZEESHAN ASGHAR, TANESH KUMAR,GAOLEI LI, AHSAN MANZOOR, KONSTANTIN MIKHAYLOV, SYED ATTIQUE SHAH, MARKO HÖYHTYÄ ,JARMO REPONEN,JYRKI HUUSKO, AND ERKKI HARJULA	According to the International Labour Organization (ILO), the aging of population is one of the main problems of this century, since it increases the proportion of old people within the total population. Along with aging population, according to World Health Organization (WHO), the worldwide prevalence of chronic diseases increases fast and new threats, such as Covid-19 pandemic, continue to emerge. Together, these challenges will cause enormous pressure on the efficacy and cost-efficiency of healthcare systems worldwide. The introduction of novel intelligent remote healthcare services is a prominent solution to ensure a high level of treatment outcome, cost-efficiency and sustainability of the healthcare The associate editor coordinating the review of this manuscript and approving it for publication was Lorenzo Mucchi . system in this situation.
4	Large Scale Infrastructure for Health Data Analytics	Samantha Crossfield, Owen Johnson, Thomas Fleming	The opportunities for data analytics to inform the science and practice of health care are growing. For example, in the UK, 65 million citizens have lifelong e-health records that can be used to examine patterns of disease, treatment, and outcomes. Similarly, the real-world impact of interventions such as new drugs can be evaluated in these

			<p>records. Such approaches need to solve issues around information governance, confidentiality, understanding data and provenance, and developing methods for big data. Here this describes a large-scale service that addresses the opportunities brought by the availability of large-scale e-health records. The service has been used to support 50 research projects in the UK across a wide range of scientific areas and can be seen as an exemplar for the developing field of health data analytics.</p>
5	A Systematic Review on Healthcare Analytics: Application and Theoretical Perspective of Data Mining	S.Siva Parvathy M.Bhuvaneshwari	<p>The growing healthcare industry is generating a large volume of useful data on patient demographics, treatment plans, payment, and insurance coverage—attracting the attention of clinicians and scientists alike. In recent years, a number of peer-reviewed articles have addressed different dimensions of data mining applications in healthcare. However, the lack of a comprehensive and systematic narrative motivated us to construct a literature review on this topic. In this paper, we presented a review of the literature on healthcare analytics using data mining and big data. Following Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines, and conducted a database search between 2005 and 2016. Critical elements of the selected studies—healthcare sub-areas, data mining techniques, types of analytics, data, and data sources—were extracted to provide a systematic view of development in this field and possible future directions. Found that the existing literature mostly examines analytics in clinical and administrative decision-making. The use of human-generated data is predominant considering the wide adoption of Electronic Medical records in clinical care. However, analytics based on website and social media data has been increasing in recent years. The lack of prescriptive analytics in practice and the integration of domain expert knowledge in the decision-making process emphasizes the necessity of future research.</p>