Literature Review on Web application to store and analyze data on the impact of social determinants of health

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1 Paper 1: Social determinants of malaria prevalence among children under five years: A cross-sectional analysis of Akure, Nigeria.

Journal/Conference Rank: Q1
Publication Year: 2022
Reference: [1]

1.1 Summary

The paper explores rising childhood malaria rates among under-five children in Akure, Nigeria, from a survey conducted in late 2019. It focuses on the influence of social determinants of health (SDH) in this context. Through rigorous analysis, the study identifies significant factors influencing U5 malaria, notably the use of protective measures such as window protection and insecticide-treated nets (ITNs), as well as the proximity to waste disposal sites and the availability of health infrastructures. These findings emphasize that factors beyond the traditional healthcare sector, such as environmental conditions and social behaviors, play a crucial role in malaria prevalence among young children. The research demonstrates that U5 children utilizing ITNs, having protected windows, and residing more than 10 meters away from waste disposal sites are less likely to suffer from malaria. The study underscores the importance of addressing these social determinants in malaria reduction strategies. It suggests that interventions should be directed toward these significant predictors to effectively combat malaria in Akure. By understanding and addressing SDH, not only can the immediate health concerns be mitigated, but it can also contribute significantly to broader sustainable development goals. The research serves as a crucial step in comprehending the intricate relationship between social factors

and malaria transmission in a local context, providing valuable insights for future public health initiatives.

1.2 Software Architecture

The study employed R (version 3.6.3) for both bivariate and multivariable analyses. Bivariate methods such as Chi-square and Fisher's exact test were used to establish relationships between categorical variables and childhood malaria in under-five-year-olds. For multivariable analysis, logistic regression models were built using backward elimination based on Schwartz's Bayesian information criterion (BIC) for variable selection. The results, presented as Odds Ratios (OR) and adjusted Odds Ratios (aOR), demonstrated malaria likelihood considering other factors.

1.3 Data Parameters

The study examined U5 malaria in 568 households (0.6

1.4 Datasets Used

The study in Akure, Nigeria, uses diverse datasets including demographics, parental status, education, income, ITN usage, health infrastructure, sanitation, and street conditions to understand malaria prevalence among children under 5 (U5). These insights inform targeted public health interventions. 1.5: Paper Link

1.4.1 Paper Link

Access the full paper at https://www.sciencedirect.com/science/article/pii/S2468227622001041.

2 Paper 2: Effect of Social Determinants of Health on Uncontrolled Human Immunodeficiency Virus (HIV) Infection Among Persons with HIV in San Francisco, California

Journal/Conference Rank: Q1
Publication Year: 2022
Reference: [2]

2.1 Summary

The San Francisco Department of Public Health (SFDPH) put programs in place between 2010 and 2014 with the goal of quickly getting patients with HIV into care and giving them antiretroviral therapy (ART) after a diagnosis. These initiatives greatly decreased the number of people with untreated HIV infections. This study looked at how SDH affected uncontrolled HIV among persons in San Francisco who were diagnosed with HIV and given ART between 2017 and 2019. Various SDH indicators, including poverty, education, insurance, income, and income inequality, were shown to be related with greater probabilities of uncontrolled HIV infection in the research, which was based on

cross-sectional data from 7486 individuals. Individuals with socioeconomic issues need additional help to obtain their ideal health outcomes, even with established care services. This study highlights the crucial role of addressing social determinants alongside medical interventions in HIV management.

2.2 Software Architecture

The study's limitations stem from the nature of cross-sectional data, which hinder causal inference between social determinants of health (SDH) and uncontrolled HIV infection. Establishing temporality was challenging due to the 3-year data window, dictated by surveillance data availability. SDH metrics were at the census tract level, not individual, potentially misrepresenting individuals' socioeconomic status. Categorization specific to San Francisco limited generalizability, and inconclusive lab records affected categorization accuracy, albeit minimally. Mental health and substance use, which influence HIV outcomes, were not fully captured. However, the study's strengths include the use of standardized, continuously collected, and highly complete HIV surveillance data. The analysis of diverse SDH factors and the specific census tract-level approach added precision. Despite these limitations, the study provides valuable insights into HIV outcomes concerning social disparities.

2.3 Data Parameters

In a study of 7486 individuals with HIV in San Francisco from 2017 to 2019, 597 had uncontrolled HIV. Demographically, 90

2.4 Datasets Used

Data collection: Used sociodemographic and clinical data from the HIV monitoring program. SDH Metrics: Based on ACS 5-Year Data, covering income, insurance, insurance coverage, and poverty. According to the results of the most recent viral load test, uncontrolled HIV is defined. Demographics: Factors such as gender, race/ethnicity, age, transmission category, birth country, and homelessness status were examined. Analysis: To compare case characteristics, logistic regression was used. In each SDH metric, important variables were considered assassin adjusted models. conducted a sensitivity study that took into account HIV-positive homeless people

2.4.1 Paper Link

Access the full paper at https://www.semanticscholar.org/paper/Effect-of-Social-Determinants-of-Health-on-Human-in-Melo-Hessol/73a71f246cfff37b785cb746137422af6c7b313b .

3 Paper 3:Integration of Case-Based Dialogue to Enhance Medical Students' Understanding of Using Health Communication to Address Social Determinants of Health

Journal/Conference Rank: Q2
Publication Year: 2023
Reference: [1]

3.1 Summary

The Paper discusses the persistent health disparities affecting marginalized communities, focusing on African Americans and individuals in low socioeconomic areas. It highlights social determinants of health (SDOH), such as access to transportation, food, and healthcare, and their influence on healthcare disparities. Implicit bias and low health literacy, especially prevalent in marginalized populations, further contribute to these disparities. The paper emphasizes the need for medical education to address SDOH and health literacy, integrating case-based experiences and small-group discussions to enhance students' understanding of population health disparities. The study aims to assess the impact of these educational approaches on medical students' knowledge about SDOH and their intent to practice in underserved communities. Limitations, which may impact its adoption, deployment, and scalability in the agricultural and food supply chains.

3.2 Software Architecture

The study utilized a prospective pre-post cohort design to assess the impact of a case-based experience and associated small group discussion on third-year medical students' understanding of social determinants of health (SDOH) and their intent to practice in underserved communities. The educational intervention involved an online didactic module, a simulated case experience highlighting SDOH, and a small group discussion facilitated by applying communication theories. Students were evaluated through an online survey, addressing their knowledge about SDOH and confidence in addressing these issues in patient care. The study collected demographic data and employed a paired t-test for data analysis using SPSS version 28. The primary focus was to evaluate the intervention's influence on students' knowledge of SDOH and their intent to work in underserved communities

3.3 Data Parameters

Between July 2020 and April 2022, 640 third-year family medicine clerkship students participated. Most were white/Caucasian (70.9

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3.4 Datasets Used

Describe the datasets used in the paper and their significance.

3.4.1 Paper Link

Access the full paper at http://www.example.com/jse/vol15/issue3/paper1.pdf.

4 Paper 4: Title

Journal/Conference Rank: Q1
Publication Year: Year
Reference: [1]

4.1 Summary

Provide a brief summary of the paper.

4.2 Software Architecture

Describe the software architecture used in the paper.

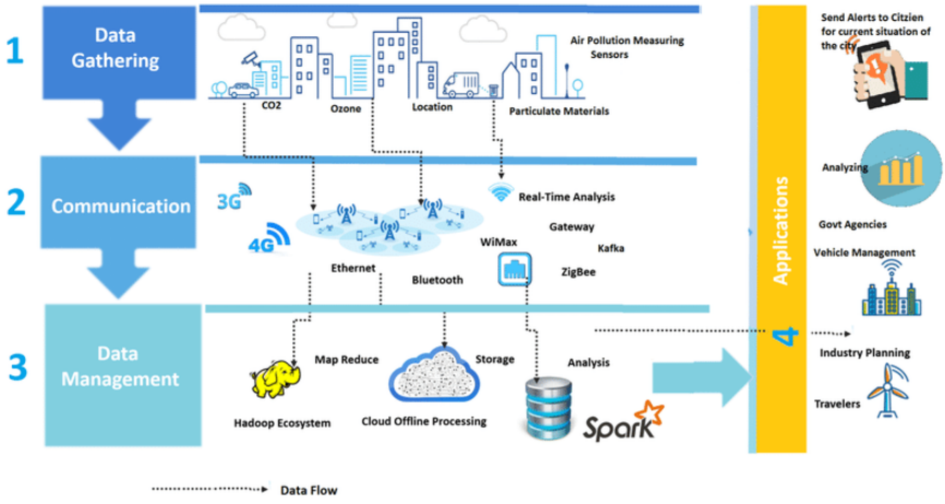

Figure 1: Software architecture diagram for Paper 1.

4.3 Data Parameters

List and describe the data parameters used in the paper.

4.4 Datasets Used

Describe the datasets used in the paper and their significance.

4.4.1 Paper Link

Access the full paper at http://www.example.com/jse/vol15/issue3/paper1.pdf.

5 Paper 5: Title

Journal/Conference Rank: Q1
Publication Year: Year
Reference: [1]

5.1 Summary

Provide a brief summary of the paper.

5.2 Software Architecture

Describe the software architecture used in the paper.

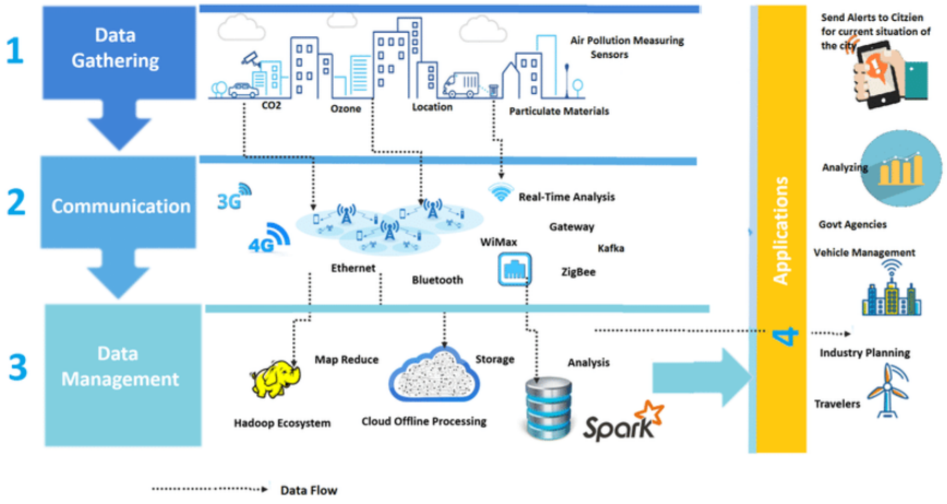

Figure 2: Software architecture diagram for Paper 1.

5.3 Data Parameters

List and describe the data parameters used in the paper.

5.4 Datasets Used

Describe the datasets used in the paper and their significance.

5.4.1 Paper Link

Access the full paper at http://www.example.com/jse/vol15/issue3/paper1.pdf.

6 Paper 6: Analysis of the impact of social determinants and primary care morbidity on population health outcomes by combining big data: A research protocol

Journal/Conference Rank: Q1
Publication Year: December 2022
Reference: [3]

6.1 Summary

This study demonstrates the link between SDH and population health as well as the spatial variations caused by these variables.Numerous technologies have been created to make it easier to analyze social determinants of health (SDH) and use this information to inform health policy. An method that is gaining more attention is the potential to create prediction models of health outcomes that include a variety of socioeconomic variables with health issues. Using primary care (PC) morbidity adjusted for SDH as predictors, we aim to predict population health outcomes measured as hospital morbidity. We also aim to analyze the geographic variability of the impact of SDH-adjusted PC morbidity on hospital morbidity by combining data from electronic health records and selected National Statistics Institute operations.

6.2 Software Architecture

RAND methodology in accordance with SDH frameworks

6.3 Data Parameters

Here is some of parameters which is used:Outcome variable,Health service EHRs,Study period

6.4 Datasets Used

As a result of the unmistakable development in information and communication technologies, the MesH term "electronic health record (EHR)" was launched in 2010, with an exponential rise in PubMed entries (now standing at 26,236). RAND methodology in accordance with SDH frameworks,this kind of method mainly give the data for help to select data.

6.4.1 Paper Link

Access the full paper at http://www.example.com/jse/vol15/issue3/paper1.pdf.

7 Paper 7: Leveraging Data and Digital Health Technologies to Assess and Impact Social Determinants of Health (SDoH):Literature Review

Journal/Conference Rank: Q1
Publication Year: Dec 2021
Reference: [1]

7.1 Summary

The paper explores the analytics-based and artificial intelligence (AI)-based tools which can be used to assess non-clinical, social determinants of health (SDoH) for population health improvement. Basically, the paper was to perform a state-of-the-art literature review to identify how SDoH data and digital health technology are leveraged to improve population health management. This paper is focused on modifiable contributions to health including social and economic factors behavior, clinical care and environmental factors. Data set and AI technology used in this paper. Also used most significant technology Geocoding (n=23). Also Machine Learning for Language (MALLET),AI(n=9).

7.2 Software Architecture

The paper provides details about the software architecture used in the study. However, it mentions the application of various of data search and AI technology.

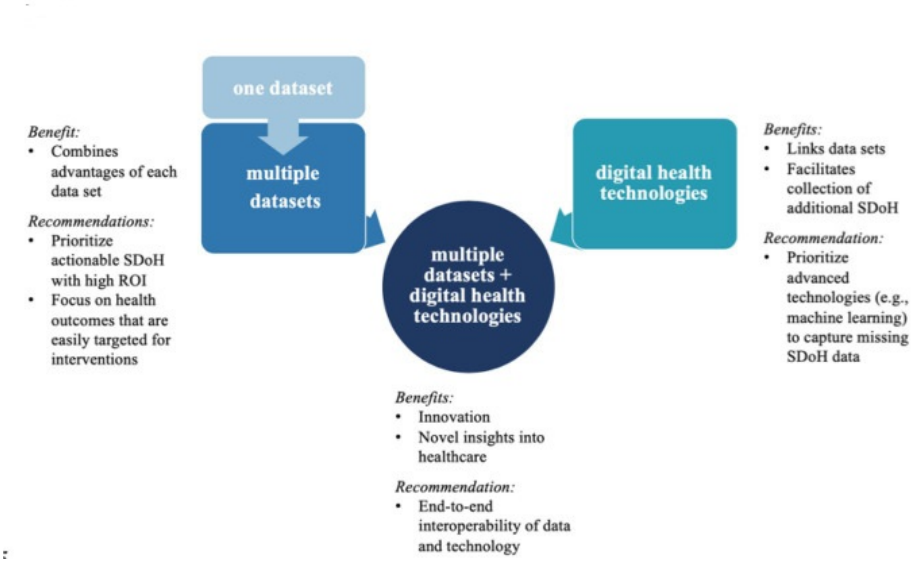

Figure 3: Software architecture diagram for Paper 1.

7.3 Data Parameters

The paper discusses the collection and utilization of data within the context of data set and AI technologies. Which is used for health sector for improving that area. It mentions that data can include information about products. However, it does not delve

into specific data parameters or metrics used in the study. The paper emphasizes the potential of literacy of technology.

7.4 Datasets Used

The paper discusses the to the utilize several data sources to enhance SDoH insights. Utilizing cutting-edge techniques, existing data has been mined for fresh SDoH-related insights. Many of the studies addressing SDoH data combined organized (machine-readable data) and unstructured (text) sources. EHRs and US census data were two of the most often utilized sources, while additional sources included federal, state, and local clinical data (such as data from registry systems and nationally conducted health surveys). The utilization of non-clinical data from public records (such as those pertaining to housing, crime, and welfare) as well as cutting-edge outside sources such online social media material (such as that found on Twitter and Yelp) were also noted.

7.4.1 Paper Link

Access the full paper at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8765800/.

8 Paper 8: Social determinants of health in electronic health records and their impact on analysis and risk prediction: A systematic review

Journal/Conference Rank: Q1
Publication Year: November 2020
Reference: [1]

8.1 Summary

This paper was discussed about the electronic health record and it's impact by analysis and risk prediction based on literature search in the PubMed, CINAHL, Cochrane, EMBASE, and PsycINFO databases. This paper social determinants of health (SDoH) domains into electronic health records (EHRs). SDoH may affect for healthcare cost and quality, such as disease diagnosis, use of healthcare services and other side effects. SDoH and risk of ER visits, and hospital admission or readmissions. This paper also analyze the sources and tools used in the studies to collect and screen domains related to SDoH.This analysis was used PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) guideline for data analysis.

8.2 Software Architecture

Describe the software architecture used in the paper.

8.3 Data Parameters

The paper discusses the collection and utilization of data within the context of data set, data library search, publications and AI technologies. Which is used for health sector for

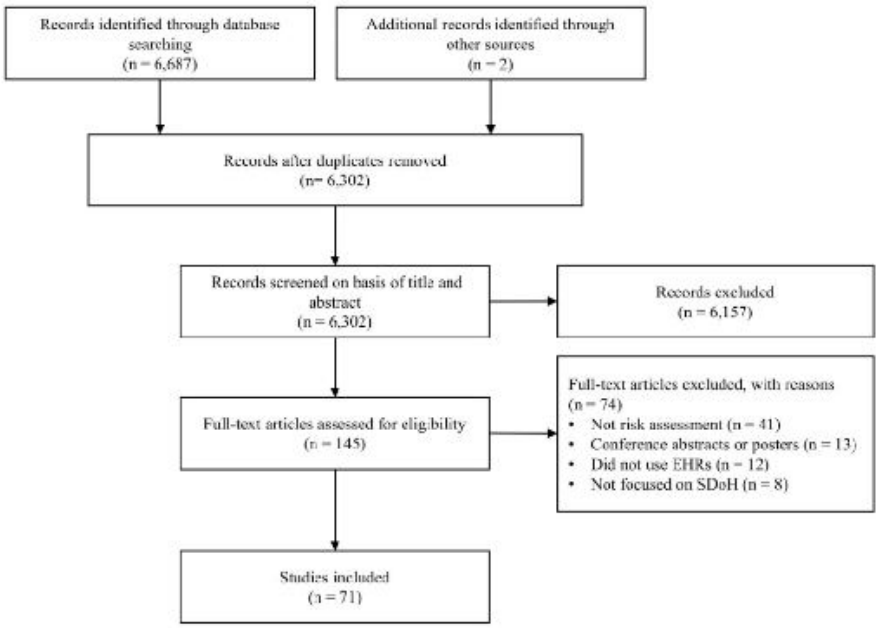

Figure 4: Software architecture diagram for Paper 1.

electronic health record. It mentions that data can include information about products. However, it does not delve into specific data parameters or metrics used in the study. The paper focused on the potential literacy of electronic health records risk factors.

8.4 Datasets Used

A list of data elements determined by the research team were extracted from each article that was chosen, including the publication year, country of origin, data source, sample size, and level of SDoH measures used, as well as information on how SDoH data is integrated into EHRs, outcome measures, study method, study purpose, findings, and limitations. Meta-analysis was not feasible due to the heterogeneity among the included studies and the absence of standardized or consistent reporting of SDoH domains and outcome variables. Consequently, we combined our data into descriptive summaries for SDoH using narrative synthesis.

8.4.1 Paper Link

Access the full paper at http://https://www.researchgate.net/publication/347296060.

9 Paper 9: Social Determinants of Health and Diabetes: A Scientific Review

Journal/Conference Rank: Q1
Publication Year: January 2021
Reference: [4]

9.1 Summary

Diabetes affects low-income adult populations and members of racial and ethnic minority groups disproportionately in the United States, as evidenced by decades of study. These communities also have higher rates of diabetes complications and death, which are largely persistent trends. In order to attain health equality, social determinants of health (SDOH) have become critical intervention targets as the focus of health care has shifted toward population health outcomes and value-based care.Recently, the COVID-19 epidemic has brought attention to the disproportionate vulnerability that impoverished areas and racial and ethnic minority groups have. The American College of Physicians, American Academy of Pediatrics, Society of General Internal Medicine, National Academy of Medicine, and other professional associations have released comments regarding SDOH in the aftermath of the concurrent epidemic.An overview of important terms and SDOH frameworks is given at the beginning of this article. The five SDOH—socioeconomic status (education, income, occupation); neighborhood and physical environment (housing, built environment, toxic environmental exposures); food environment (food insecurity, food access); health care (access, affordability, quality); and social context (social cohesion, social capital, social support)—are the main subjects of the literature review, which emphasizes studies of adults with diabetes conducted in the United States. The evaluation culminates with suggestions for research on diabetes, recommendations for research to influence practice, and suggestions for connections between the health care and community sectors from national advisory groups.

9.2 Software Architecture

This paper focuses more on prevent diabetics and the importance of it with time. How during covid-19 medical facilities shifted and became a quick actionable. Diabetics need also this.The difference in facilities due to the accessibility of proper smart way.

9.3 Data Parameters

List and describe the data parameters used in the paper. Here is some of them,Centers for Disease Control and Prevention (CDC) ,National Academies of Science, Engineering, and Medicine ,American Medical Association ,American College of Physicians ,Nonprofit services (HealthLeads,Aunt Bertha).

9.4 Data sets Used

The inclusion of SDOH in this review was based on their presence in a sufficient body of literature to indicate the determinant's influence on diabetes, as well as their representation within one or more existing SDOH frameworks.The inclusion of SDOH in this review was based on their presence in a sufficient body of literature to indicate the determinant's influence on diabetes, as well as their representation within one or more existing SDOH frameworks.Socioeconomic status (SES) is a reliable indicator of the start and course of numerous diseases, including diabetes, at all SES levels. Proper data is also aided by health databases.

9.4.1 Paper Link

Access the full paper at https://diabetesjournals.org/care/article/44/1/258/33180.

10 Paper 10: Data Sources for Understanding the Social Determinants of Health: Examples from Two Middle-Income Countries: the 3-D Commission

Journal/Conference Rank: Q1
Publication Year: September 2021
Reference: [1]

10.1 Summary

The paper you provided discusses the importance of Social determinants of health in two middle-income country. The development of the breadth, size, and data sources on the broader social determinants of health (SDH) during the past few decades may fill in knowledge gaps that affect the ability to make decisions. Making data broadly available, accessible, and helpful for enhancing population health still faces obstacles. There are still capacity and organizational limitations on data availability and usage, despite the fact that conventional, government-supported data sources and similar data are frequently utilized to identify socioeconomic determinants. In contrast, data that is kept privately may not be disclosed. The nature, sources, and applications of data on SDH are reviewed and discussed in this paper, with examples from Kenya and the Philippines, two middle-income nations. Kenya and the Philippines because in these countries,because they have recent development records

10.2 Software Architecture

Big data is used in this research.

Figure 5: Software architecture diagram for Paper 1.

10.3 Data Parameters

Mention in the paper

10.4 Data sets Used

Citizen-generated data (CGD),Civil Society Organizations (CSOs) ,Demographic and Health Survey (DHS), KIHBS Basic these was the data provider for this paper.More over ,HEALTHY SDH, in two LMICs, Kenya and the Philippines, two were new data sources.

10.4.1 Paper Link

Access the full paper at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8409472/.

11 Paper 11: Supporting Rural Public Health Practice to Address local-level Social Determinants of Health across Northwest States: Development of an Interactive Visualization Dashboard

Journal/Conference Rank: Q1
Publication Year: May 2022
Reference: [1]

11.1 Summary

The paper focuses on how rural area people are affected by their surroundings. The paper aims to solve the problem of data storage. As a solution, a model is made for visual validation, developed and tested prototypes. To reach participants across a wide geographic area including in rural/frontier areas of Alaska, Idaho, Oregon, and Washington, they modified conventional in-person UCD procedures to be remote. Every stage of the project, including the needs assessment, mock up building, and usability testing, involves recruiting participants from all four states. They created a functional dashboard with information on one group of important health indicators. The purpose of the usability assessment on this small amount of data was to provide information for later data integration for the other important areas of health.

11.2 Software Architecture

This paper has used Tableau to create the data dashboards for the SHARE-NW alpha test site. Three dashboard story pages with one to three visualizations on each page were created. The results of mockup development were used to guide design decisions for features and functionality.

11.3 Data Parameters

To evaluate usability parameters, they worked with descriptive statistics. For the purpose of computing ranges of certainty for task completion success, they used the Adjusted Wald Method.

11.4 Data sets Used

The paper mentions using quantities data. To thoroughly evaluate the system's usability, the study used quantitative techniques with predefined usability metrics. These measurements made it possible to evaluate in-depth a number of usability factors, such as efficacy, efficiency, satisfaction, and learn ability.

11.4.1 Paper Link

Link : https://www.sciencedirect.com/sdfe/reader/pii/S1532046422000673/pdf.

12 Paper 12: Digital inclusion as a social determinant of health

Journal/Conference Rank: Q1
Publication Year: 2021
Reference: [1]

12.1 Summary

This paper focuses on including digital tools in data storage and how it is beneficial for storing health information. Research shows that tools like health apps and patient portals can create higher patient involvement, better support for patients outside of the clinic visit, and can enhance health outcomes when tools like patient portals, health trackers, and remote monitoring devices become more widely used. Digital literacy and Internet access are referred to be the "super social determinants of health" because they address all other SDOH. Examples include the rising availability of online applications for jobs, housing, and other aid programs, all of which have an impact on a person's health. The Lifeline Program's impact is limited by low consumer awareness, and the qualification process varies by state and by the service provider. In addition, Internet service may still be affordable even with the monthly subsidy. After the COVID-19 pandemic, these programs' fate is uncertain. They offer suggestions to encourage the equitable adoption of mobile health technology as clinical care increasingly incorporates technology in more contexts.

12.2 Software Architecture

This paper focuses more on digital literacy and the importance of it with time. How during covid 19 medical facilities shifted and became digital. The difference in facilities due to the accessibility of proper smart devices.

12.3 Data Parameters

Economic Sustainability, neighborhood, physical environment, health care system, education, and food play an important role in the accessibility of digital literacy. It relates to all other social determinants of health categories.

12.4 Data sets Used

In order to ensure equitable access to and use of information and communication technologies, various measures must be taken, such as providing broadband Internet access at an affordable price, providing Internet-enabled devices, providing access to digital literacy training, providing high-quality technical support, and developing online tools and content that promote self-reliance, participation, and collaboration. These serve as the cornerstone for mobile technology use in healthcare.

12.4.1 Paper Link

Access the full paper at https://www.nature.com/articles/s41746-021-00413-8.

13 Paper 13:Internet of Things (IoT) enabled healthcare helps to take the challenges of COVID-19 Pandemic

Journal/Conference Rank: Q1
Publication Year: 2021
Reference: [1]

13.1 Summary

This paper focuses on IOT. In order to do the necessary work, smart gadgets can collect data and communicate it in daily life. These innovations raise living standards and productivity in both established and emerging sectors and civilizations. To meet increased efficiency standards, it is difficult to understand the technologies being employed, their advantages, and the key applications that go along with them. IoT has a great power to provide results of a high caliber with cutting-edge technology. In the field of medicine, it has become a new reality of an original concept that offers COVID-19 patients the greatest care and conducts accurate surgery. Sensors are used to perceive, collect, and receive the necessary data regarding patient health and disease. Here, every physical thing is networked (linked to the Internet), and gadgets show real-time process monitoring. Specific doctors are given the necessary medical data in accordance with their requirements.

13.2 Software Architecture

IoT integrates equipment, tools, and medical supplies to produce intelligent information systems that are tailored to the needs of each COVID-19 patient. Software is crucial to the most effective monitoring and communication methods. For the finest care in the future, all records are kept in absolute privacy.

13.3 Data Parameters

They successfully monitor and regulate all the critical parameters for medical temperature, blood sugar level, blood pressure, and information on COVID-19 patient health by employing smart sensors.

13.4 Datasets Used

Different data is collected by using sensors and other medical tools. The data is used to provide accurate treatment to patients by storing them.

13.4.1 Paper Link

Link https://www.sciencedirect.com/science/article/pii/S2212426821000154.

14 Paper 14: Quantifying Health Systems' Investment In Social Determinants Of Health, By Sector, 2017–19

Journal/Conference Rank: Q1
Publication Year: 2023
Reference: [1]

14.1 Summary

This paper showcases how the significance of socioeconomic determinants of health for health outcomes has gained attention over the past ten years. They looked more widely for treatments identified as being targeted at social determinants or community health rather than trying to find every form of social variable that may be targeted by health systems for intervention. They separated the economic stability domain into its component sections due to the vast number of initiatives that focused on it. The following six categories were therefore included: employment, food security, housing (housing quality and stability), education (early childhood education, language, and literacy. Of the 626 health systems, they found that 57 (9.1

14.2 Software Architecture

This paper does not focus on software architecture. It focuses on investments and the quality of the healthcare system and how it is related to the social determinants of health.

14.3 Data Parameters

They separated the economic stability domain into its component parts due to the large number of programs that focused on it. Additionally, since these foci were frequently present in the same housing-focused programs in practice, they combined housing instability and quality of housing into a single housing category.

14.4 Datasets Used

A variety of data sets is used. The data sets are in the form of a table. On table consists of the characteristics of a healthcare system. It displays the number of beds, the teaching status, pediatric care status etc

14.4.1 Paper Link

Access the full paper at https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2019.01246.

15 Paper 15:Integrating Data On Social Determinants Of Health Into Electronic Health Records

Journal/Conference Rank: Q1
Publication Year: 2018

Reference: [1]

15.1 Summary

This paper focuses on how practitioners are realizing that data outside of conventional clinical findings can provide a broader perspective on possible drivers of a patient's health status and can identify methods to improve the effectiveness of care as population health becomes more of a focus in healthcare. It will take some time, though, before information about the social determinants of health, such as affluence and environmental conditions, is as easily accessible and usable as medical data. It shows how there is a lack of agreement on standards for capturing or representing social determinants of health in electronic health records. They suggest creating national standards for the representation of data related to social determinants of health in electronic health records, encouraging the collection of the data through financial or quality measures, and enlarging the body of research that evaluates the impact of acting on the information collected in order to address these issues and effectively use social determinants in health care settings. In order to deploy appropriate clinical decision-support treatments to address social determinants of health, both inside an EHR system and across several systems, data consistency is crucial.

15.2 Software Architecture

This paper has no software architecture. It focuses on developing a standard for social determinants of health. So the information collected is more accurate and effective.

15.3 Data Parameters

Race, ethnicity, tobacco use, alcohol use, and healthcare insurance are the few parameters of a data set. Research has shown that such information on social determinants of health can enhance predictive models and provide a more thorough knowledge of a patient's life circumstances.

15.4 Datasets Used

Generally collected in electronic health records, Safety issues, Financial issues, Behavioral Health, and Other demographic characteristics are used as datasets.

15.4.1 Paper Link

Link https://www.healthaffairs.org/doi/pdf/10.1377/hlthaff.2017.1252.

16 Paper 16: The Social Determinants of Health: It's Time to Consider the Causes of the Causes

Journal/Conference Rank: Q1
Publication Year: 2014 Jan-Feb
Reference: [1]

16.1 Summary

Examples of the limitations of medical care are given in the article, such as Thomas McKeown's work, which ascribed greater life expectancy in the 19th century more to better living conditions than to medical advancements. Further highlighting the complex relationship between medical care and health results is the rising mortality disparities in the UK following the establishment of the National Health Service and the U.S.'s high medical spending but poor health rankings.

The article emphasizes how social factors, especially socioeconomic ones, have a significant impact on people' and different health indicators. It necessitates a deeper comprehension of the socioeconomic determinants of health and their root causes.

This article delves into the impact of social factors on health, emphasizing that social determinants play a significant role in shaping health outcomes. Several studies are cited to support this perspective. McGinnis et al. estimate that only 10The article also highlights the strong associations between various health indicators and individuals' socioeconomic resources or social position, including income and educational attainment. This relationship often follows a stepwise gradient pattern, with health improving incrementally as social position rises. These findings are consistent not only in the United States but also in European data, and they are observed within different racial/ethnic groups, showing that socioeconomic differences in health are not solely explained by racial or ethnic factors. Moreover, the article suggests that racial discrimination and societal legacies of discrimination can harm health by acting as pervasive stressors in social interactions, regardless of an individual's socioeconomic status. This leads to disparities in health outcomes, including disparities in birth outcomes among highly educated women, illustrating the far-reaching impact of social determinants on health. In summary, the article presents a compelling case for the significant role of social factors, such as income, education, and discrimination, in shaping health outcomes, emphasizing that addressing social determinants is crucial for achieving better public health.

16.2 Software Architecture

This paper focuses more on digital literacy ..

16.3 Data Parameters

List and describe the data parameters used in the paper.

16.4 Datasets Used

Educational attainment ,Family income.

16.4.1 Paper Link

Access the full paper at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3863696/.

17 Paper 17: The association between coffee and caffeine consumption and renal function: insight from individual-level data, Mendelian randomization,and meta-analysis

Journal/Conference Rank: Q1
Publication Year: 14 December 2021
Reference: [1]

17.1 Summary

This study examines the connection between caffeine intake, coffee consumption, and renal function, concentrating on markers of kidney function and chronic kidney disease (CKD). Individual data analysis and Mendelian randomization (MR), as well as a systematic review and meta-analysis, are two separate approaches used in the study. The link between renal function indicators and caffeine consumption is investigated using data from the National Health and Nutrition Examination Surveys (NHANES). Summary-level data from genome-wide association studies (GWAS) on coffee consumption and kidney function, involving a sizable participant population (N = 91,462 for coffee consumption and N = 133,413 for renal function), are used in MR.

To determine the relationship between coffee consumption, caffeine intake, and kidney function, several MR techniques are used, such as the inverse variance weighted method (IVW), weighted median-based method, MR-Egger, MR-RAPS, and MR-PRESSO. Meta-analysis is performed using generic inverse variance methods and random effects models, and sensitivity analysis is performed using a leave-one-out strategy.

In short, this study integrates genetic information, magnetic resonance imaging (MR), and conventional data analysis to thoroughly evaluate the connection between coffee consumption, caffeine, and renal function, elucidating the potential effects of these variables on chronic kidney disease and markers of kidney health.

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In short, this study integrates genetic information, magnetic resonance imaging (MR), and conventional data analysis to thoroughly evaluate the connection between coffee consumption, caffeine, and renal function, elucidating the potential effects of these variables on chronic kidney disease and markers of kidney health.

17.2 Software Architecture

This paper focuses more on digital literacy .

17.3 Data Parameters

coffee, chronic kidney disease, Mendelian randomization,NHANES, systematic review.

17.4 Datasets Used

This paper focuses more on digital literacy .

17.4.1 Paper Link

Access the full paper at https://www.semanticscholar.org/reader/8e477e6b4f2a5c204b6fa3e010c9105872

18 Paper 18: Social determinants of health in electronic health records and their impact on analysis and risk prediction: A systematic review

Journal/Conference Rank: Q1
Publication Year: 07 November 2020
Reference: [1]

18.1 Summary

This comprehensive analysis explores the social determinants of health (SDoH) domains' integration into electronic health records (EHRs) and explores how it affects risk assessment and health outcomes. Following PRISMA principles, the study conducted a thorough literature search in a number of databases to find pertinent English-language studies that had been published up until March 2020.

In the review, 71 distinct articles that addressed the research issues were found, the majority of which were published after 2017 and mostly in the United States. An important conclusion was that whereas the remaining papers collected SDoH information from unstructured clinical notes within EHRs, 79Studies combining individual-level SDoH data revealed enhanced predictive performance for a number of healthcare outcomes, including service referrals, medication adherence, and the probability of 30-day readmission. Studies using external area-level SDoH data, however, found that they had no effect on the accuracy of the forecast models.

The review also emphasised the absence of agreement among authors in the literature about the SDoH measurements employed and the current screening instruments. Overall, the research points to the potential benefits of incorporating individual-level SDoH data into EHRs for risk assessment, forecasting healthcare use and health outcomes. The significance of initiatives to gather and standardise patient-level SDoH data within electronic health records is underlined by this findings.

18.2 Software Architecture

This paper focuses more on digital literacy .

18.3 Data Parameters

social determinants of health, electronic health records, behavioral determinants, social factors, systematic review, risk prediction.

18.4 Datasets Used

domains and dimensions, EHR: electronic health record; SDoH: social determinants of health.

18.4.1 Paper Link

Access the full paper at https://academic.oup.com/jamia/article/27/11/1764/5959858.

19 Paper 19: Addressing Social Determinants to Improve Patient Care and Promote Health Equity: An American College of Physicians Position Paper

Journal/Conference Rank: Q1
Publication Year: 17 April 2018
Reference: [1]

19.1 Summary

The American College of Physicians (ACP) is aware of the critical contribution social determinants of health (SDoH) make to the health outcomes of individuals. SDoH includes non-medical factors that can have a significant impact on health and contribute to health disparities, such as income, education, environmental conditions, employment, and social support networks.

This ACP policy paper emphasises how critical it is to address SDoH within the healthcare system. It emphasises the need of comprehending and addressing these variables because they are fundamentally accountable for significant health inequities. In addition to encouraging interprofessional collaboration, boosting research into SDoH, and supporting the use of electronic health records (EHRs) as instruments to enhance health outcomes, the report offers numerous important policy proposals.

The ACP emphasises the necessity of public measures intended to lessen socioeconomic disparities and enhance health equity. Additionally, it supports gathering and using data on SDoH to support evidence-based healthcare interventions and inform decision-making. The objective is to equip stakeholders, including doctors and policymakers, to fight for laws that end inequalities and advance health equity for everyone.

In essence, this position paper highlights the critical importance of tackling SDoH in healthcare and suggests all-encompassing solutions to solve this problem, making it a top priority for doctors and the medical community

19.2 Software Architecture

This paper focuses more on digital literacy .

19.3 Data Parameters

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19.4 Datasets Used

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19.4.1 Paper Link

Access the full paper at https://www.acpjournals.org/doi/10.7326/m17-2441.

20 Paper 20: Taking stock of the social determinants of health: A scoping review

Journal/Conference Rank: Q1
Publication Year: May 11, 2017
Reference: [1]

20.1 Summary

The enormous body of research on social determinants of health (SDOH) is examined in this scoping review in relation to modern population and public health. As a result of numerous conceptual models, frameworks, and lists, there is growing complexity around SDOH as well as possible misinterpretation. 108 papers from academic and grey literature databases that were published between 2004 and 2014 were thoroughly analysed for the study. The study settings, target audiences, and geographic focus of the publications varied greatly; a sizable chunk came from Canada and was directed at decision-makers. Different methods were used by authors to communicate SDOH, and they frequently used lists, models, or tales to do so. The research uncovered a recurring theme: the SDOH framework uses "health equity" as a key and unifying term. However, writers' views on what health equality implies varied, which has an impact on the approaches used to address SDOH. In conclusion, this scoping study highlights the need for a more precise understanding and articulation of the SDOH concept and advises authors to present and discuss SDOH with the basic idea of health equity in mind. This study emphasises the difficulties in integrating and using SDOH ideas in the context of population and public health.

20.2 Software Architecture

Describe the software architecture used in the paper.

20.3 Data Parameters

List and describe the data parameters used in the paper.

20.4 Datasets Used

Describe the datasets used in the paper and their significance.

20.4.1 Paper Link

Access the full paper at https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0177306.

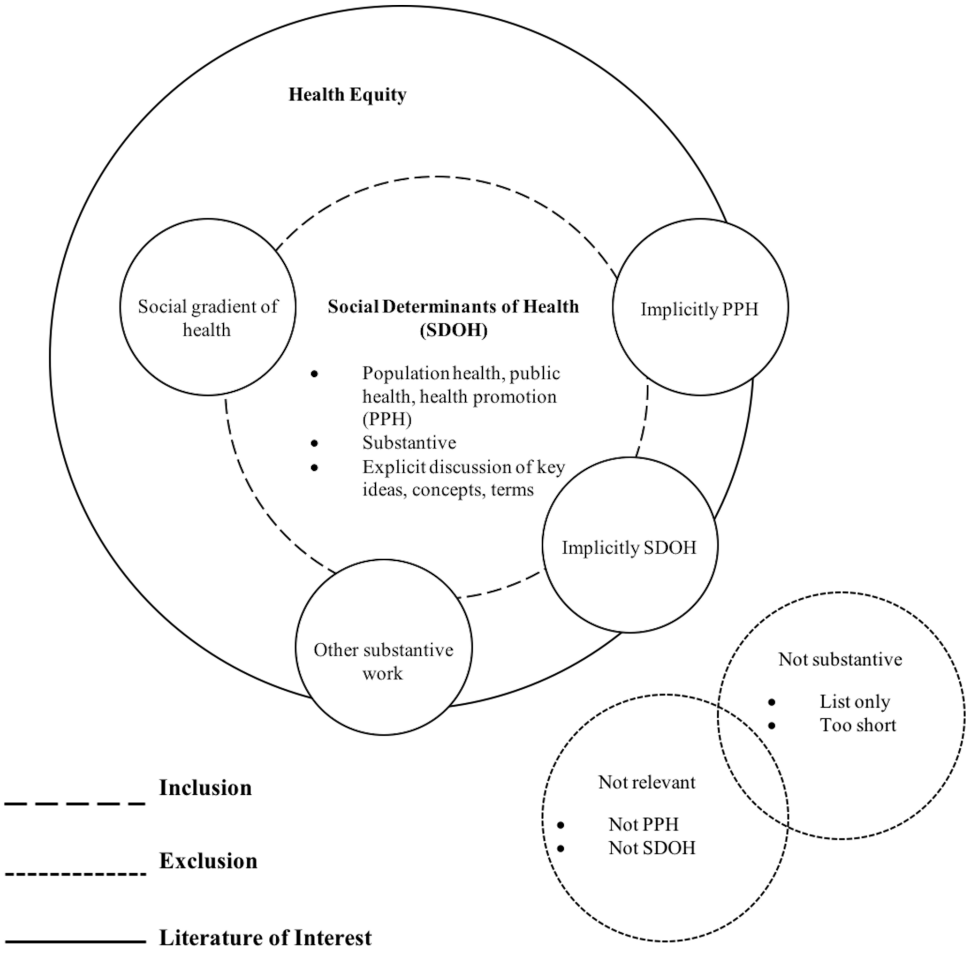

Figure 6: Software architecture diagram for Paper 20.

21 Discussion and Future Planning

Discuss the common themes, differences, and trends observed in the reviewed papers. Highlight any gaps in the literature and potential areas for future research and write about ideas and methods you are planning to implement.

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