

Universal Health Coverage; A Catalyst for achieving 2030 Sustainable Development Goals

ABSTRACT

Background

Achieving Universal Health Coverage is one of the prerequisites for improved health outcomes, a decline in the rate of Impoverishment due to health expenditure (IHE), and achieving Sustainable Development Goals 1,2, and 3. While some countries (primarily those in Sub-Saharan Africa) are still battling to achieve Health Coverage for their populations, Western countries have achieved this feat using several strategies and models. This study aims to identify Universal Health Coverage implementation strategies adopted by different countries and how the strategies have contributed to achieving the 2030 **Sustainable Development Goal** targets.

Method

A systematic literature review was employed, and a total of 10 studies conducted met our inclusion criteria. The sensitive search strategy was employed. The search was conducted with the use of appropriate keywords (guided by the research objective) in different databases such as MEDLINE (EBSCO), CINAHL (EBSCO), ProQuest, AMED (EBSCO), and PsycINFO. Articles were also retrieved through a manual search on google scholar. The search was also guided by the Population, Intervention, Comparison, Outcome PICO framework.

Findings

Studies identified health insurance schemes for the unemployed, self-employed, and private sector employees and implementation of user fee exemption or subsidized medical bills for a population sub-group deemed vulnerable as Universal Health Coverage implementation strategies in different countries. These strategies significantly increased health coverage and improved health outcomes as well.

Conclusion and Recommendations

The majority of countries in the sub-Saharan Africa region are yet to achieve Universal Health Coverage, this will pose a challenge to their ability to attain the 2030 Sustainable Development Goals. The study recommends that tested strategies such as improved health financing, sustainable health system strengthening, and a holistic approach to quality of

healthcare services should be contextualized and implemented in countries that are yet to achieve Universal health coverage for their populations.

Keywords: Universal Health Coverage, Sustainable Development Goals, 2030 SDG targets

1. INTRODUCTION

One of the major causes of ill health and early mortality remains the lack of access to essential health care services [1]. According to the World Health Report 2010, one billion people lacked access to primary health care, and more than two billion people lacked regular access to essential medicines. This aroused the concern of global health care leaders to address the challenges many countries face in reducing financial hardship associated with increased access to quality health care services without creating financial hardship. In 2012, global health and foreign policy recommended the inclusion and prioritization of universal health coverage as a front burner in the discussions on the post-2015 development agenda in the context of global health challenges; this led to the adoption and target of Universal Health care Coverage (UHC) by 2030, including financial risk protection, access to quality essential healthcare services and access to safe, effective, quality and affordable essential medicines and vaccines for all which is the Sustainable Development Goal (SDG-3.8) [2].

UHC is one of the targets of SDG 3, which is to **ensure** healthy lives and promote well-being for all ages. Other SDGs related to health are SDG1 which aims to end poverty in all its forms everywhere; SDG2 aims to end hunger, achieve food security and improved nutrition, and promote sustainable agriculture; and SDG6, aimed to ensure availability and sustainable management of water and sanitation for all. Several studies [3,4,5,6], have established a nexus between poverty and health with the argument that the health-seeking behavior of individuals depends to a large extent on their poverty levels. Health conditions such as Severe Acute Malnutrition (SAM), marasmus, and stunting are caused by hunger, inadequate food, and malnutrition, thus relating SDG2 to health. The absence of water and sanitation facilities can be responsible for outbreaks of cholera and diarrhea hence the link

between SDG6 and health. Implementation of UHC will therefore influence the achievement of these other health-related SDGs.

To achieve UHC, different countries are implementing several health care reforms such as Health Insurance Schemes at either National (National Health Insurance Schemes-NHIS) or Community (Community Based Health Insurance Schemes-CBHIS) levels. However, the road to achieving UHC is by no means smooth. Barely one year after adoption, more than 70 countries had asked the World Health Organization to help them progress toward UHC [6]. The call for World Health Organization's help resulted from challenges encountered in the implementation. Several studies assessing progress towards achieving UHC revealed poor performance, especially in low-income countries [8,9,10,11,12,13,14]. With just eight years left to achieve the UHC and other SDGs targets, it has become imperative to identify countries that have achieved the feat, the models used in their implementation, and the challenges/bottlenecks faced. Lessons learned from these countries would help other countries strive toward achieving the UHC. This paper aims to review UHC implementation approaches of different countries and how such systems influence the achievement of the other health-related SDGs.

1.1 Objective

Globally, significant progress was made on many of the Millennium Development Goals. This progress is uneven across countries and regions, with resultant health disparity in a vulnerable population, leaving millions without access to essential healthcare. The worst hit, are countries in sub-Saharan Africa, a region with one of the poorest and most vulnerable people, where a considerable gap exists between urban and rural communities. This study systematically explores articles published between 2000 and 2021 exploring Universal Health Coverage implementation strategies adopted by different countries and how the strategies have contributed to achieving the 2030 Sustainable Development Goal (SDG) targets.

2. METHODOLOGY

The sensitive search strategy was employed to retrieve all relevant articles to develop a full systematic review. The search was conducted with the use of appropriate keywords (guided by the research objective) in different databases such as MEDLINE (EBSCO), CINAHL (EBSCO), ProQuest, AMED (EBSCO), and PsycINFO. Articles were also retrieved through a manual search on google scholar. The search was also guided by the Population, Intervention, Comparison, Outcome PICO framework, as shown in Table 1.

Population	The entire human population of countries implementing UHC
Interventions	All health care reforms aimed at achieving UHC
Comparison	No comparison
Outcome	Improved health outcomes as a result of UHC achievement

Table 1: PICO Framework

Thus, the PICO question is, “what are the UHC implementation strategies adopted by different countries and how have these strategies contributed to achieving the 2030 SDG target”?

Upon completing the search, the retrieved articles were logged into RefWorks, a software that manages references to articles. The software removed duplicate articles from the pool of articles retrieved from the search. The remaining unique articles were screened to ascertain their relevance to answering the PICO question. The screening was done by reading the titles and abstracts of the papers to see if relevant information that could provide answers to the PICO question would be found. If such information was not found, then the full text was read in search of the information. Studies were included in the review if they: Contained information relevant to answering the PICO question; they were reported in the English language and published between the year 2000 and 2021.

Studies included in this review were assessed for quality to ascertain their validity and reliability using the Critical Appraisal Skills Programme (CASP) tool. CASP is a standard tool

commonly used in assessing studies for a systematic review [15]. The tool comprises ten questions that assess the quality of results reported in study articles. In this review, studies were evaluated whether they reported objectives, research questions, UHC implementation strategies, and health or health-related outcomes resulting from such strategies. Studies were also assessed for risk of reporting bias (using the risk Of Bias in Systematic reviews (ROBIS) tool) as improved health outcomes reported in the studies may not only be attributed to the implementation of UHC schemes. Initial narrative synthesis and systematic tabulation of information were used to synthesize results from studies included in the review [16]. The findings in the tabulation were arranged by year of publication of included studies, with the most recent study at the beginning.

3. RESULTS

A total of 169 articles were retrieved from the search; after screening and assessment for eligibility, 10 met the desired criteria and were included in the review. The number of articles retrieved, screened, assessed for eligibility, and included in the review with reasons for exclusions at each stage is depicted in the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) flow diagram in figure 1.

Figure 1: PRISMA flow diagram

3.1 Study characteristics

Studies included in this review were primarily conducted in Western countries. These countries have well-established health systems and policies aimed at the UHC of their

citizens. Only one of the studies was conducted in Africa. Across all the studies, two major strategies adopted by different countries toward health coverage of their populations were identified; health insurance schemes either at the community or national levels and some form of user fee exemption or subsidized fee for a specific category of the population deemed vulnerable (aged, unemployed, retirees). These strategies significantly increased health coverage, especially in countries where it was compulsory for citizens and permanent residents to enroll in a health insurance scheme. The strategy for improving health coverage also led to improved health and health-related outcomes such as; a decline in mortality rate resulting from illnesses peculiar to each country, an increase in life expectancy, and a decrease in the rate of Impoverishment due to health expenditure. Findings from each included study for the review are tabulated in Table 2.

Table 2: systematic tabulation of findings from individual studies

S/N	Reference of selected studies	Country	UHC implementation Model/strategy	Health outcome/SDG achieved
i	Mao et al. [17]	China	Strong political commitment and extensive government subsidies to expand coverage. As such, different schemes were also introduced to cover diverse target populations. Such schemes included the New Rural Cooperative Scheme (NCMS). There were also advocacy campaigns by Local Governments for NCMS among all populations	Fast population coverage for health insurance schemes as a result of low individual premium rates
ii	Mao et al. [17]	Vietnam	Prioritization of poor populations by providing comprehensive and universal service packages through insurance schemes with the government as the primary payers. Such schemes include Compulsory Health Insurance (CHI), Voluntary Health Insurance (VHI), and	Decrease in Catastrophic Health Expenditure (CHE) both in urban and rural populations, thereby leading to a decline in Impoverishment due to Health Expenditure (IHE)

			the Health Care Fund for the Poor (HCFP)	
iii	Adusei-Asante et al. [18]	Senegal	User-fee exemption for some population segments (deemed vulnerable) and some health conditions. Many Community-based health insurance schemes in operation	Decrease in out-of-pocket expenditure on private health care from 91.7% to 78.5%
iv	Servan-Mori et al. [19]	Mexico	Introduction of a voluntary health insurance scheme called Seguro Popular (SP). This scheme extended its coverage to the unemployed, rural workers, and workers in the informal sector, mainly the poor and uninsured.	Decrease in the rate of Impoverishment due to health expenditure from 3.3% to 0.8% between 2003 and 2013
v	Baird [20]	Colombia	The general system of social security in health made health insurance compulsory. This system was divided into three: the contributory regime for individuals in formal employment, the subsidized regime for individuals in informal employment, and the special benefit regime for the armed forces, teachers, and a state-owned petroleum company	coverage increased to 96% of the population; OOP decreased from 56% to 15% between 1993 and 2006
vi	Aran and Ozceli [21]	Turkey	The Health Transformation Programme (HTP), which ensured a progressive mechanism for out-of-pocket payments and no or limited co-payments for essential health services, was coordinated by the General Health Insurance Scheme (GHIS), covering the majority of the population for services provided by both public and private health facilities. The program was funded by contributions from employees, employers, and the government.	A significant increase in supply and access to Primary Health Care services led to improved health outcomes around maternal and child health and infectious diseases. Tobacco consumption among the population also reduced from 32% in 2003 to 24% in 2012

vii	Evans et al. [22]	Thailand	The Civil Servant Medical Benefit Scheme (CSMBS) and the Social Security Scheme (SSS) are part of the Universal Coverage Scheme (UCS). CSMBS provided services to government employees and their dependents while the SSS focused on private-sector employees	After a year of introduction, the entire population was covered. The number of outpatient visits rose from 2.45 to 3.22 within seven (7) years. Household impoverishment resulting from health payments reduced significantly (2.71% in 2000 to 0.49% in 2009)
viii	Ikeda et al. [23]	Japan	The employed are covered with a health insurance scheme. The self-employed and the retired population are protected by a municipality-based insurance scheme called Citizen's Health Insurance (CHI)	Mortality rates for infectious diseases in children and young adults declined, and life expectancy at birth also increased. Low fatality rates for the leading cause of death (cancer, heart disease, and cardiovascular disease) were also recorded.
ix	Mathauer et al. [24]	Korea	Establishment of a universal National Health Insurance (NHI) to provide essential protection against the risk of illness for the entire population. Patients had considerable freedom of choice of their providers. The medical Aid Program (MAP) was established and fully funded by the government to provide health services to the population that could not afford contributions to the NHI	Decrease in the rate of private spending on health as social protection is provided for low-income individuals (30% of the cost as cost-sharing for outpatient pharmaceuticals)
x	Carrin and James [25]	Germany	The Social Health Insurance (SHI) gradually covered the population by type of industry and professional group because it became compulsory for all citizens and permanent residents.	Increase in life expectancy from birth to 81 years, mortality rate caused by ischemic heart disease (IHD) declined by 50%, cerebrovascular disease decreased by 63%, and low infant mortality rate of 2.8 per 1000 births

4. DISCUSSION

Different countries have adopted different models/strategies for achieving UHC. While other countries have achieved this feat, others are yet. The successes and challenges recorded by countries that have achieved UHC could serve as lessons for other countries. One of the most significant challenges across all countries with contributory health insurance schemes is difficulty in covering self-employed individuals and those working in private and smaller unregulated firms, often referred to as the informal sector. In Germany, for instance, it took 58 years to include various types of self-employed into their insurance schemes hence their total population coverage for quality and affordable health care services. Findings from countries with UHC revealed that such countries have health insurance schemes for the aged/unemployed population. For instance, in Japan, Korea, and Germany, the drive for total population coverage led to the inclusion of these population groups into health insurance schemes. However, they could not contribute to such schemes. In Korea, an alternative plan aside from the National health scheme (for those who could afford contribution) called MAP was established and fully funded by the government to provide free medical services to the population that is not part of the national health scheme. These achievements were borne out of Strong political commitment and extensive government subsidies of such nations. In China, advocacy campaigns were carried out for the health schemes among the population; this was a way to make even the grassroots population understand what the health schemes were all about, thus making acceptance easy. [26] have suggested improved health financing, strengthening the health system will play a key role in helping achieve Universal Health Coverage, especially at a time when the global priority is shifting from vertical program to health system approach, this is imperative if any meaningful efforts will be sustained [27].

5. CONCLUSION

UHC can be achieved with strong government commitment, translating into the formulation and implementation of policy frameworks, models, and strategies for its achievement. This is evidenced in countries like China, Germany, Japan, and most western nations. Countries

that are yet to achieve UHC (primarily those in Sub-Saharan Africa) can accomplish this feat before the 2030 target if the lessons from the implementation by western nations are learned. [28] concluded in their studies that overall, targeted interventions at the community level are essential in reducing maternal mortality in the sub-Saharan Africa region, but more significant as a pivot towards Universal Health Coverage. **Therefore, the need for a more sustainable financial mechanism to support health interventions at different levels, with a focus on access to health, reduction in catastrophic expenditure, and improved quality of services provided.**

5.1 Strength and Limitations

This study is the first to comprehensively explore the progress made on the implementation of Universal Health Coverage across countries globally, providing evidence that will possibly drive implementation in countries that are lagging behind, especially in sub-Saharan Africa. We also noted that a major limitation of this review can be seen in terms of reporting bias from the individual studies. Improved health outcomes and a decrease in the rate of Impoverishment due to health expenditure were only attributed to the implementation of Universal Health Coverage schemes neglecting other factors such as an increase in an individual's income, knowledge, and health-seeking behavior.

6. RECOMMENDATION

Based on the findings from the literature review, the following recommendations were made.

- i. Countries that have achieved UHC should sustain their implementation models/strategies for sustained health outcomes
- ii. Countries that are yet to achieve UHC should adapt models/strategies adopted by some countries that have achieved the feat. Such models/methods include a strong political commitment and extensive government subsidies/spending on health and the establishment of health insurance schemes for the poor, rural dwellers, the unemployed, the self-employed, and those employed in the private

sector. Countries should also launch a mass awareness campaign on health insurance schemes and their benefits.

- iii. All countries, irrespective of achievement towards uhc, should also create/sustain social safety nets for their vulnerable population to cushion the effects of the social determinants of health which significantly impact health outcomes.

DISCLAIMER

The view expressed in the articles are those of the authors and not that of the affiliated institutions.

REFERENCES

1. Kruk, M. E., Gage, A. D., Joseph, N. T., Danaei, G., García-Saisó, S., & Salomon, J. A. (2018). Mortality due to low-quality health systems in the universal health coverage era: a systematic analysis of amenable deaths in 137 countries. *Lancet (London, England)*, 392(10160), 2203–2212. [https://doi.org/10.1016/S0140-6736\(18\)31668-4](https://doi.org/10.1016/S0140-6736(18)31668-4)
2. World Health Organization. The World Health Report 2010: Health Systems Financing: The Path to Universal Coverage. Geneva: World Health Organization; 2010. 128 p.
3. Ubi, P., and Ndem, B. (2019). Poverty and Health Outcomes in Nigeria. *International Journal of Economics and Financial Issues*, 2019, 9(6), 132-141.
4. Chung, G., Dong, D., Wong, S., Wong, H., Chung, R. (2020). Perceived poverty and health, and their roles in the poverty-health vicious cycle: a qualitative study of major stakeholders in the healthcare setting in Hong Kong. *International Journal for Equity in Health*
5. Herdman, M.T., Maude, R.J., Chowdhury, M.S., Kingston, H.W.F., Jeeyapant, A., Samad, R., Karim, R., Dondorp, A., Hossain, M. (2016) The Relationship between Poverty and Healthcare Seeking among Patients Hospitalized with Acute Febrile Illnesses in Chittagong, Bangladesh. *PLoS ONE* 11(4): e0152965. <https://doi.org/10.1371/journal.pone.0152965>.
6. Lawanson, O.I., and Umar, D.I. (2021). The life expectancy–economic growth nexus in Nigeria: the role of poverty reduction. *SN Bus Econ* 1, 127 (2021). <https://doi.org/10.1007/s43546-021-00119-9>
7. Kieny, M. (2016). Universal health coverage: Unique challenges, bold solutions. WHO Commentary, 3 August 2016.
8. Ataguba, J.E & Ingabire, M. (2016). Universal Health Coverage: Assessing Service Coverage and Financial Protection for All. *American Journal of Public Health*, 106(10)

9. Lagomarsino, G., Garabrant, A., Adyas, A., Muga, R & Otoo, N. (2012). Moving towards universal health coverage: health insurance reforms in nine developing countries in Africa and Asia. *Lancet*. 2012; 380(9845):933–943.
10. Wagstaff, A., Dmytraczenko, T & Almeida, G. (2015). Assessing Latin America's progress toward achieving universal health coverage. *Health Aff (Millwood)*. 2015;34(10): 1704–1712.
11. Boerma, T., Eozenou, P., Evans, D., Evans, T., Kieny, M & Wagstaff A. (2014). Monitoring progress towards universal health coverage at country and global levels. *PLoS Med*. 2014;11(9): e1001731.
12. Ng, M., Fullman, N., Dieleman, J.L., Flaxman, A.D., Murray, C.J & Lim, S.S. (2014). Effective coverage: a metric for monitoring universal health coverage. *PLoS Med*. 2014;11(9): e1001730.
13. Obare, V., Brolan, C.E & Hill, P.S. (2014). Indicators for Universal Health Coverage: can Kenya comply with the proposed post-2015 monitoring recommendations? *International Journal of Equity in Health*. 2014 Dec 20; 13:123.
14. Wagstaff A, Cotlear D, Eozenou PH, Buisman LR. (2016). Measuring progress towards universal health coverage: with an application to 24 developing countries. *Oxf Rev Econ Policy*. 2016;32(1):147–89.
15. Singh J. Critical appraisal skills programme. *J Pharmacol Pharmacother* 2013; 4:76-7.
16. Higgins, J.P., López-López, J.A., Becker, B.J., *et al* (2019). Synthesizing quantitative evidence in systematic reviews of complex health interventions, *BMJ Global Health* 2019;4: e000858.
17. Mao, W., Tang, Y., Tran, T., Pender, M., Khanh, P.N., and Tang, S. (2020). Advancing Universal Health Coverage in China and Vietnam: Lessons for other countries. *BMC Public Health*, 2020(20:1791)
18. Adusei-Asante, K., Doh, D., and Klutsey, J. (2017). Pitfalls of Universal Health Coverage systems: Evidence from west Africa. Proceedings of the 39th African studies association of Australasia and the Pacific annual conference, The University of Western Australia
19. Servan-Mori, E., Avila-Burgos, L., Nigenda, G., and Lozano, R. (2016). Performance analysis of public expenditure on maternal health in Mexico
20. Baird, K. (2016). High Out-of-Pocket medical spending among the poor and elderly in nine developed countries. *Health services research*. 1475-6773.
21. Aran, M., and Ozceli, E. A. (2014). Turkey-Universal Health Coverage for inclusive and sustainable development: Country summary report. Washington DC.
22. Evans, T., Chowdhury, A., Evans, D., Fidler, A., Lindelow, M., Mills, A., & Scheil-Adlung, X. (2012). Thailand's Universal Coverage Scheme: Achievements and Challenges. Bangkok.

23. Ikeda, N., Saito, E., Kondo, N., Inoue, M., Ikeda, S., and Satoh, T. (2011). Japan: Universal Health Care at 50 years. What has made the population of Japan Healthy? *The Lancet*, 378, 1094-1105.
24. Mathauer, I., Xu, K., Carrin, G., and Evans, D.B. (2009). An analysis of the health financing system of the Republic of Korea and options to strengthen health financing performance
25. Carrin, G. and James, C. (2005). Social Health Insurance: Key factors affecting the transition towards Universal Health Coverage. *International Social Security Review*, 58(1).
26. Jaca A, Malinga T, Iwu-Jaja CJ, Nnaji CA, Okeibunor JC, Kamuya D, Wiysonge CS. Strengthening the Health System as a Strategy to Achieving a Universal Health Coverage in Underprivileged Communities in Africa: A Scoping Review. *Int J Environ Res Public Health*. 2022 Jan 5;19(1):587. doi: 10.3390/ijerph19010587. PMID: 35010844; PMCID: PMC8744844.
27. Orjingen, O., Olumuyiwa, O., Oguji, C., Apiyanteide, F., Inegbeboh, J., Audu, D., ... & Udah, C. T. (2021). Full childhood immunization coverage and incidence of vaccine preventable disease in Nigeria: a regression analysis. *International Journal of Community Medicine and Public Health*, 8(12), 5757. DOI: <https://dx.doi.org/10.18203/2394-6040.ijcmph20214563>
28. Orjingen, O., & Morgan, J. (2020). Effectiveness of community-based interventions in reducing maternal mortality in sub-Saharan Africa: a systematic review. *International Journal of TROPICAL DISEASE & Health (IJTDH)*, 41(9), 9-21. <https://doi.org/10.9734/ijtdh/2020/v41i930314>