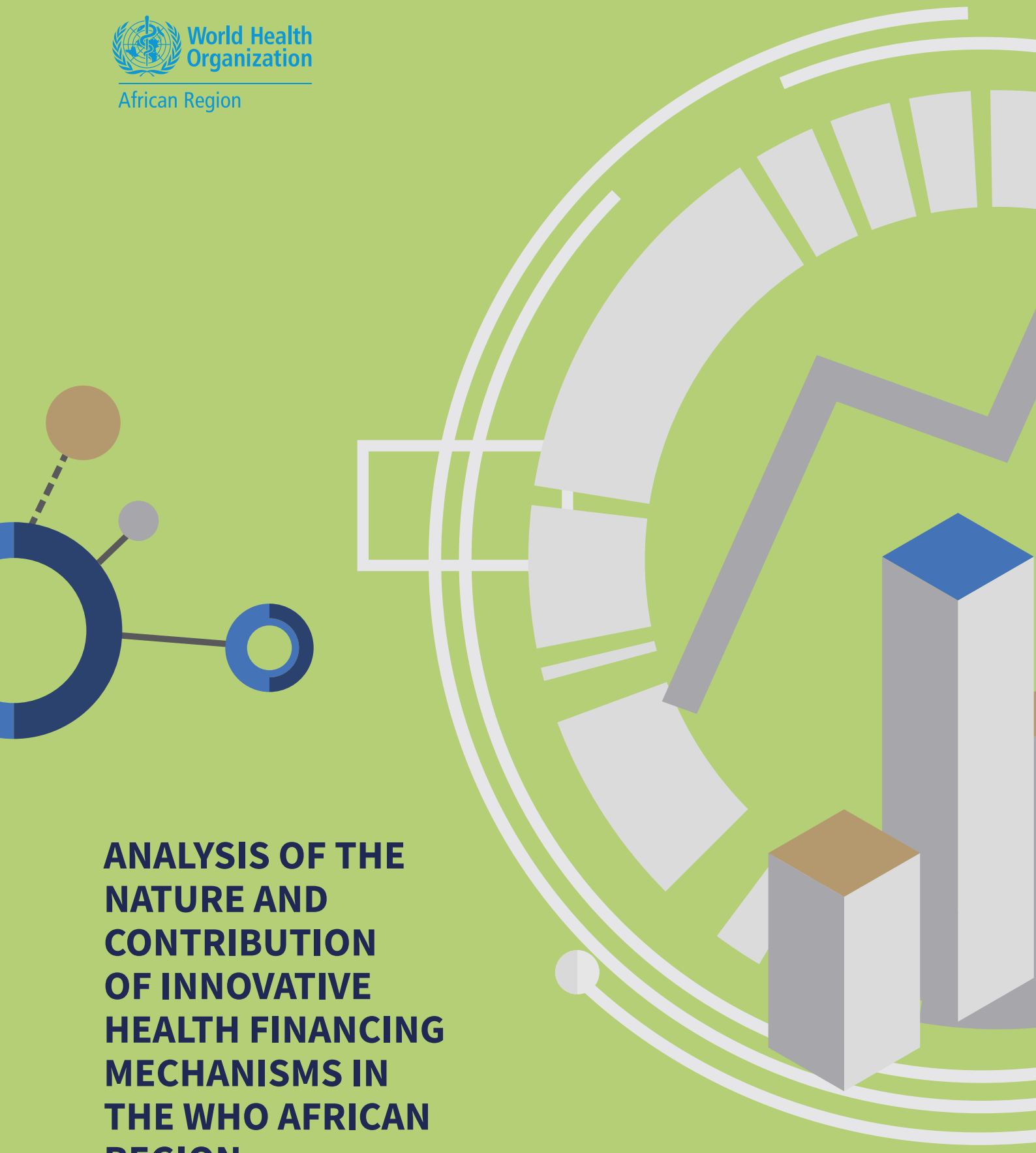
World Health Organization

African Region



ANALYSIS OF THE NATURE AND CONTRIBUTION OF INNOVATIVE HEALTH FINANCING MECHANISMS IN THE WHO AFRICAN REGION

September 2022

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Contents

ACRONYMS ..... **VI**

FOREWORD ..... **VII**

ACKNOWLEDGEMENT ..... **VIII**

EXECUTIVE SUMMARY ..... **X**

1. INTRODUCTION **1**

PART I: SYSTEMATIC SCOPING LITERATURE REVIEW 4

2. METHODOLOGY **4**

2.1 Identifying the research question 4

2.2 Identifying relevant studies 4

2.3 Study selection 5

2.4 Selection of eligible studies 5

2.5 Charting the data 5

2.6 Collating, summarizing and reporting the results 6

2.7 Reporting of findings 6

3. RESULTS (PART I) **8**

3.1 Characteristics of studies 8

3.2 Innovative financing mechanisms available 9

3.3 Nature of innovative financing mechanism implemented in the WHO African Region 12

3.3.1 Sin taxes (Excise taxes on harmful goods) 12

3.3.2 Levies and bonds 14

3.3.3 Social impact bond 14

3.3.4 Transaction taxes 14

3.3.5 Trust funds and equity funds 14

4. FACTORS FACILITATING OR INHIBITING THE IMPLEMENTATION OF THE INNOVATIVE FINANCING MECHANISM IN THE WHO AFRICAN REGION **15**

4.1 Sin taxes 15

4.1.1 Excise tax on alcohol 15

4.1.2 Excise tax on tobacco 15

4.1.3 Excise tax on sugar-sweetened beverages 15

4.1.4 Levies and bonds 16

4.1.5 Transaction taxes 16

4.1.6 Trust funds and equity funds 16

5. LESSONS LEARNT ON THE DESIGN (STRUCTURE), DEVELOPMENT AND IMPLEMENTATION PROCESS 18

5.1 Influence of international policies and innovative financing mechanisms 18

5.2 Implementation of the mechanism in a cluster 18

5.3 Intersectoral collaboration is essential for acceptability 18

5.4 Country-level commitment attracts funding 18

5.5 Advocacy by the ministries/departments of health and social groups 19

5.6 Transparent management of funds builds donor confidence and local commitment 19

5.7 Need for ministries of health to push for conversion of existing mechanisms into health financing mechanisms 19

5.8 Data is essential in evaluating the impact of mechanisms 19

PART II: ESTIMATION OF AMOUNT RAISED (2015–2020) 20

6. Methodology 20

6.1 Conceptual framework 20

6.2 Data Sources 20

6.3 Data analysis 20

7. RESULTS 22

7.1 Amount raised from the innovative health financing mechanisms 22

7.1.1 Tobacco tax 23

7.1.2 Alcohol tax 23

7.1.3 Sugar and SSB tax 23

8. DISCUSSION 24

9. CONCLUSION 26

10. RECOMMENDATIONS 27

REFERENCES 28

ANNEX: DATA MATRIX 32

List of Tables

Table 1: Keywords and their substitutes 4

Table 2: Summary of innovative health financing mechanisms identified 10

Table 3: Tobacco tax allocated to health and health-related activities in Africa 13

Table 4: Volume of funding from tax mechanisms (US$) (12 countries) 22

List of Figures

Figure 1: Search and inclusion of studies....8

Figure 2: Distribution of studies/documents included....9

Figure 3: Volume of funding from domestic mechanisms by year (12 countries)....22

Acronyms

ECOWAS	Economic Community of West African States
GDP	Gross domestic product
HIS	Health information systems
ODA	Official development assistance
PAYE	Pay-as-you-earn
PCC	Population, concept and context
SDGs	Sustainable Development Goals
UNCDF	United Nations Capital Development Fund
WHO	World Health Organization
WHO AFRO	WHO Regional Office for Africa
WHO FCTC	World Health Organization Framework Convention on Tobacco Control

Foreword

Africa is off track to reach the Sustainable Development Goals by 2030 and lags behind in building resilient health systems and health security, against a backdrop of limited resources. The world envisaged a significant role for governments in funding the Sustainable Development Agenda, but inadequate funding for health in African countries is persistent, despite additional continental commitments to address the problem. When commitments to global health targets and available fiscal space do not align, innovation is warranted.

The health financing discourse is dominated by the focus on improving efficiency in health spending and exploring innovative financing mechanisms as plausible ways of increasing fiscal space for health. Efforts are ongoing in the different countries to increase domestic financing for health through innovative strategies; however, unless they are systematically documented and shared, opportunities for shared learning will remain limited.

This report synthesizes available evidence on the nature, type and amount of funds raised from innovative financing mechanisms, as well as the aspects of health on which such funds are used. Moreover, the report analyses enabling and inhibitory factors, and lessons learnt from the implementation of innovative health financing mechanisms in the WHO African Region, to provide guidance to countries embarking on a similar undertaking.

Dr Kasonde Mwinga
Director, Universal Health Coverage/Life Course Cluster

Innovative health financing mechanisms do exist and are increasing in countries across the continent. Fresh impetus for implementing these mechanisms stem from international policies, the need to improve healthy eating and the social life of the populace, advocacy and the availability of international mechanisms to which countries can subscribe. However, the funds generated from many of these mechanisms are not all allocated to health care, although some are allocated to sports and other health-related activities.

Innovative financing mechanisms based on taxation should not be conceptualized merely as a means of raising additional funds for health; influencing health behaviour and improving health should serve as the overall objective. To this end, innovative financing mechanisms must be implemented as a cluster of interventions to influence health behaviour, preferably backed by national legislation and global commitments.

The COVID–19 pandemic and the projected reduction in economic growth call for innovation if countries are to meet universal health coverage targets. This review highlights lessons from the African continent and proposes recommendations that can guide countries in exploring the potential for innovative financing for health.

Acknowledgement

This assessment was undertaken by the WHO Regional Office for Africa – Health Financing and Investment Programme, under the leadership of the Director of the Universal Health Coverage/Life Course Cluster, Dr Kasonde Mwinga. The assessment was technically led by Juliet Nabyonga, Kingsley Addai and Diane Karenzi Muhongerwa. WHO country office health financing focal points who sourced and shared relevant documents are acknowledged. Dr Christmal Dela Christmals and Dr Evelyn Thsehla who led the review that informed this report are acknowledged.


UP
KEEP DRY
HANDLE WITH CARE
NO HOOK
MOTOR-SICH JSC

Executive summary

Introduction

Official development assistance (ODA), through bilateral and multilateral mechanisms, has been declining since 2013 [1] and is projected to be further adversely affected by the COVID-19 pandemic shocks. Financial risk protection, the cardinal tenet of universal health coverage (UHC), which ensures that no persons are excluded from accessing health services or are impoverished by the high cost of healthcare has implications on increasing health expenditure [2,3]. Additionally, the population's need for health care is ever increasing, due to improving life expectancy and advancements in medical technology, leading to escalating health expenditures year after year [4–6]health workforce deficits are also a major threat. We therefore modelled the needed healthcare facilities in Ghana and translated it into year-by-year staffing requirements based on established staffing standards. Methods: Two levels of modelling were used. First, a predictive model based on Markov processes was used to estimate the future healthcare facilities needed in Ghana. Second, the projected healthcare facilities were translated into aggregate staffing requirements using staffing standards developed by Ghana's Ministry of Health (MoH.

Most countries in the African Region, however, have limited domestic revenue-raising capacity. Moreover, health is not accorded the priority it deserves, while budgetary allocation to the sector leaves much to be desired. For instance, only two countries met the Abuja target of allocating 15% of the government budget to health in 2020. With the economic shocks experienced by countries due to the protracted COVID-19 pandemic, government revenues have declined, and the fiscal space is expected to shrink in the short to medium term [7, 8]. Addressing the population's health needs amidst a limited fiscal space, while ensuring financial protection for the vulnerable, calls for improving health financing, especially from innovative domestic sources [9] including the scaling up of the health workforce (HWF.

Aim

This assessment sought to synthesize all available evidence on the nature, type, amounts raised (2015–2020) and the aspects of health that the funds have been allocated to or used for, facilitating and inhibitory factors, and lessons learnt on the implementation of innovative health financing mechanisms in the WHO African Region.

Methodology

This assessment was executed in two parts. The first part involved a systematic scoping literature review [10,11] to describe the structure of innovative health financing mechanisms available in the WHO African Region, facilitating and inhibitory factors, lessons learnt in the development process and implementation. The second part estimated the volume of funding generated from the mechanisms identified in the systematic scoping review for each country over the period 2015–2020. Microsoft Office Excel® was used for data compilation and analysis. Analysis was done by country, year and innovative funding category. All revenues were reported in 2020 US$ using the Gross Domestic product (GDP) deflator indices from the United States Department of Commerce, Bureau of Economic Analysis, National Income Product Account. Countries with no data on revenue generated from innovative financing mechanism were excluded from the analysis.

Results and discussion

Our database search yielded 171 journal papers, out of which 15 were included [12–25]. Our additional search mechanisms also provided 26 grey literature comprising 10 national Act/ Policy[26–35], eight (multi-country reports [36–43], seven single-country institutional policies [44–50] and a conference paper [51] (Figure 1).

The 41 documents included in this review reported 10 innovative financing mechanisms in 43 out of the 47 WHO AFRO Member States (Table 3). The most common mechanisms include excise tax on tobacco products (43 countries); excise tax on alcoholic beverages and spirits (41 countries); airline ticket levy (18 countries); sugar-based beverages tax (7 countries) levy on oil, gas and mineral tax (4 countries). Other mechanisms include the HIV/AIDS trust fund, the social impact bond, the financial transaction tax and the mobile phone tax and equity fund.
We found that innovative financing is growing on the continent with already existing government fundraising mechanisms for the consolidated funds being reviewed on health policy grounds. Ministries of health are beginning to receive some funds from the proceeds of the mechanisms.

We also found other mechanisms, such as Debt2Health and loan buydown that generate additional sources of funding for the health system. Debt2Health is a form of debt relief programme, where a creditor forgives a debtor a portion of the loan and invests it in health. These two debt conversion mechanisms were not considered innovative health financing although other institutions such as the Global Fund [36] ascribe that title to them [3].

Some of the mechanisms are implemented as a cluster of interventions to influence healthcare behaviour. For example, excise taxes on tobacco are implemented in tandem with smoke-free areas, age restrictions, no advertisement and inscription of health warnings on packaging [19]. These

show that innovative mechanisms using excise tax have been conceptualized not merely for raising funds [21,24]. Bird & Wallace [38] referred to these types of mechanisms as the "public health model" of taxing. More than raising funds, it seeks to influence the consumption of alcoholic beverages, which may have negative effects on the health and social life of the population.

Conclusion

Innovative health financing mechanisms exist and are increasing in a number of countries across the continent, as a result of international policy, the need to improve healthy eating and social life of the populace, advocacy and availability of international mechanisms for countries to subscribe to. Funds generated from many of the mechanisms are not allocated to healthcare, although some portions are allocated to sports and other health-related activities. It is therefore not clear where the lines are drawn in terms of what constitutes innovative health financing and to what extent funds allocated to allied health activities are considered health financing. In many countries, the innovative financing mechanism that sought to impose excise taxes (sin taxes) on harmful or unhealthy products such as alcoholic beverages and sugar-sweetened beverages receive persistent resistance from industries due to conflicting policies. Setting up intersectoral committees to develop and implement the innovative mechanisms that involve excise taxes was highly recommended as a possible solution to the conflicts of interest.

1. Introduction

All healthcare policies, interventions and practices need funding for development and implementation. Health financing is one of the critical building blocks of every health system. Funding is the pivot around which all other building blocks rotate [52]. For example, one needs funding to hire and sustain *good leaders*, to procure essential medicines, build and maintain health information Systems (HIS), train, recruit and retain the health workforce and strengthen service delivery systems [53].

The Sustainable Development Goals (SDG) envisaged governments playing a significant role in funding the 2030 agenda and the universal health coverage (UHC) aspirations. However, in the past 10 years, the relative importance that African governments have accorded to health funding has stagnated at a regional average of just slightly over 30% of current health expenditure.[1] In the WHO African Region, 35 countries are spending less than the minimum required to ensure access to the essential health package of services estimated at US$ 112 per capita, compared to the regional average of US$ 124 per capita.[2]

Official Development Assistance (ODA) through bilateral and multilateral mechanisms has been declining since 2013 [1], and is projected to be further adversely affected by the COVID-19 pandemic shocks. Although financial protection to ensure that no persons are excluded from accessing health services or are impoverished by the high cost of health care is the cardinal tenet of UHC, it has implications for increasing health expenditure [2,3]. Additionally, the population's need for health care is ever increasing due to increasing life expectancy and advancements in medical technology; hence health expenditures are expected to escalate yearly [4–6]health workforce deficits are also a major threat. We therefore modelled the needed healthcare facilities in Ghana and translated it into year-by-year staffing requirements based on established staffing standards. Methods: Two levels of modelling were used. First, a predictive model based on Markov processes was used to estimate the future healthcare facilities needed in Ghana. Second, the projected healthcare facilities were translated into aggregate staffing requirements using staffing standards developed by Ghana's

Ministry of Health (MoH. For example, it has been projected that in addition to current levels of health expenditure, US$ 274 to US$ 371 billion is needed annually until 2030 to achieve the health system targets in the Sustainable Development Goals [54]including for SDG 3 (healthy lives and wellbeing. Most countries in the African Region, however, have limited domestic revenue-raising capacity, while the budgetary allocation or priority given to health leaves much to be desired. For instance, only two countries meet the Abuja target of allocating 15% of the government budget to health in 2020.[3] In the context of economic shocks experienced by countries due to the protracted COVID-19 pandemic, government revenues have declined, and the fiscal space is expected to shrink in the short to medium term [7,8].

Addressing the population's health needs within a limited fiscal space, while ensuring financial protection for the vulnerable, calls for improving health financing, hence the need to explore innovative domestic sources (8)

Healthcare financing covers the mobilization, pooling and equitable allocation of funds in the health system in a manner that allows all the population to receive quality and safe care without being pushed into poverty as a consequence of healthcare costs [52]. Traditionally, there are three broad healthcare financing models, the Bismarck and Beveridge systems, which include social insurance through employment, national health insurance in all forms, and the out-of-pocket model. Being innovative goes beyond merely modifying the traditional funding mechanisms.

The WHO taskforce defined innovative financing as a range of non-traditional mechanisms designed to raise additional funds for health through "innovative" projects such as micro-contributions, taxes, public-private partnerships and market-based financial transactions, [55, 56]. A financing mechanism must meet the essential criteria to be innovative:

(a) **Additionality (*raison d'être)*:** innovative financing instruments, mechanisms or policies are created to fill the financial gaps

(b) that have compromised the attainment of health targets. Thus, innovative financing mechanisms must complement existing funding and not substitute them or have a "crowding-out effect" on pre-existing budgetary commitment.

(c) **Effectiveness:** the mechanism ensures the right and better use of the additional funds.

(d) **Efficiency:** ensuring value for the use of the additional funding from innovative financing mechanisms, instruments, or policy, ensuring transparency and accountability.

1 WHO Global health expenditure database
2 Source: 2017b. World Health Statistics 2017: Monitoring Health for the SDGs. Sustainable Development Goals. Geneva: World Health Organization. http://www.who.int/ gho/publications/world_health_statistics/2017/en/.
3 African Union, domestic health financing score card (2020)

Countries in the African Region have initiated various forms of innovative financing for health, including the so-called sin taxes (on sugar, alcohol, and cigarettes and other tobacco products), mobile phone or communication tax, HIV/AIDS levies, tax on insurance and other instruments of micro-contributions to fund specific aspects of healthcare. For example, Rwanda's innovative financing model has been seen as one [57] similar to the HIV/AIDS levy in Zimbabwe, 50% of which is used to subsidize antiretroviral treatment [58].

Although several countries have innovative financing mechanisms, certain lingering issues must be addressed to facilitate peer-to-peer learning towards the adoption and/or improvement of innovative health financing mechanisms for sustainable health financing.

Against this backdrop, the WHO AFRO Health Financing and Investment programme conducted a systematic review of all available evidence on the nature of innovative health financing instruments, mechanisms and policies implemented in Africa and the volume and relative importance of the revenue raised through such mechanisms.

Aim and objectives

This scoping review, therefore, aims to describe all available evidence on the nature of innovative health financing mechanisms, instruments and policies, and the amounts raised in the process. It also discusses the facilitating and inhibitory factors, and lessons learnt on the structure, the development process and the implementation of innovative health financing instruments and policies in Africa.
The specific objectives are to:

(a) Describe the nature of innovative health financing instruments, mechanisms and policies implemented in Africa.
(b) Document the factors contributing to successful and/or unsuccessful innovative health financing mechanisms.
(c) Analyse the importance of innovative financing mechanisms in financing health services (amounts raised and relative importance).
(d) Document the lessons learnt on the design (structure), the development and the implementation process.

The study was carried out in two parts. Part I covers a systematic scoping review followed by part II on the estimation of the amount raised from 2015 to 2020.


Pallet 01 of 02
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Part I: Systematic scoping literature review

2. Methodology

A systematic scoping review [10, 11] was conducted to describe the innovative health financing mechanisms in the WHO African Region. Scoping reviews are undertaken as stand-alone or presystematic reviews [59]. The underlying motivation for scoping reviews is that the area under study is emerging and not well researched or very broad to focus a review. Innovative health financing mechanisms are an emerging area, especially in the WHO African Region hence the choice of the approach. Scoping reviews permit the inclusion and synthesis of studies from all paradigms, hence the selection of the scoping review methodology [60,61]. To successfully synthesize all the concepts related to innovative financing mechanisms in the WHO African Region, the reviewers included government policy documents, reports and qualitative, quantitative, mixed-method and multi-method published studies on the phenomenon [60,]. This requires a review method that is broad and inclusive enough to achieve the purpose sought [62]. A convergent integrated synthesis and integration of qualitative and quantitative findings from included studies were conducted in this review[63].

This review was guided by Arksey and O'Malley's [64] scoping review framework, comprising six phases: "identifying the research question; identifying relevant studies; study selection; charting the data; collating, summarizing and reporting the results; and consultation (optional)".

2.1 Identifying the research question

The review question considered in this study was guided by the Population, Concept and Context (PCC) mnemonic as follows[10]:

Population: This study included health financing for all population groups in the WHO African Region.

Concepts: The nature, facilitators and inhibitors, structure, lessons from the development process and implementation of innovative health financing instruments and policies.

Context: The 47 countries in the WHO African Region.

2.2 Identifying relevant studies

The search was conducted in four phases: (a) computerized search; (b) forward and backward search; (c) snowballing through experts; and (d) hand search.

Phase one involved a systematic computerized search in PubMed, Scopus, Web of Science, EbscoHost and ProQuest, using various combinations of the keywords: innovative financing, health, Africa. Wildcards such as *, ? and ~ were employed in the computerized search. Various synonyms and variations of the keywords were also used during the search, as stated in Table 1. Box 1 presents the search string and the link to the results of an advanced search, using the main keywords.

Table 1: Keywords and their substitutes

Keywords	Alternative words used
• Innovative financing • Domestic revenue	• Sin taxes • Tax on car insurance for health • Sugar tax for health • Salt tax for health • Mobile phone tax for health • Airline ticket tax for health • Cigarette tax for health
Health	Health care Health services Health systems
Africa	*Countries within the WHO African Region

* Algeria, Angola, Benin, Botswana, Burkina Faso, Burundi, Cabo Verde, Cameroon, Central African Republic, Chad, Comoros, Congo, Côte d'Ivoire, Democratic Republic of the Congo, Equatorial Guinea, Eritrea, Eswatini, Ethiopia, Gabon, Gambia, Ghana, Guinea, Guinea Bissau, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali, Mauritania, Mauritius, Mozambique, Namibia, Niger Nigeria, Rwanda, Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, South Africa, South Sudan, Togo, Uganda, United Republic of Tanzania, Zambia, Zimbabwe.

Box 1: Search string

Search string: ((innovative financ*[Title/Abstract] OR sin tax[Title/Abstract] OR Tax on Insurance[Title/Abstract] OR Sugar tax[Title/Abstract] OR Salt tax[Title/Abstract] OR Mobile phone tax[Title/Abstract] OR Airline ticket tax[Title/Abstract] OR Sugar drink tax[Title/Abstract] OR Cigarrete tax[Title/Abstract]) AND (health[Title/Abstract] OR healthcare[Title/Abstract] OR health services[Title/Abstract])) AND (Africa*[Title/Abstract])

Link to search result from search string in box 1:
https://pubmed.ncbi.nlm.nih.gov/?term=%28%28innovative+financ*%5BTitle%2FAbstract%5D+OR+sin+tax%5BTitle%2FAbstract%5D+OR+Tax+on+Insurance%5BTitle%2FAbstract%5D+OR+Sugar+tax%5BTitle%2FAbstract%5D+OR+Salt+tax%5BTitle%2FAbstract%5D+OR+Mobile+phone+tax%5BTitle%2FAbstract%5D+OR+Airline+ticket+tax%5BTitle%2FAbstract%5D+OR+Sugar+drink+tax%5BTitle%2FAbstract%5D+OR+Cigarrete+tax%5BTitle%2FAbstract%5D%29+AND+%28health%5BTitle%2FAbstract%5D+OR+healthcare%5BTitle%2FAbstract%5D+OR+health+services%5BTitle%2FAbstract%5D%29%29+AND+%28Africa*%5BTitle%2FAbstract%5D%29&sort=&filter=lang.english&filter=lang.english-D%29%29+AND+%28Africa%5BTitle%2FAbstract%5D%29&filter=lang.english&size=100

Phase two comprised forward and backward or ancestry search on the relevant studies identified. Forward search includes searching for papers that cite a specific study, while backward search involves searching through the reference list of a paper to retrieve relevant studies.

In phase three, all corresponding authors of the studies included were contacted to lead the researchers to papers and other reports on innovative financing in the WHO African Region that the authors might have missed. The google scholar, ORCID and research gate accounts of the authors of relevant studies were scanned for relevant studies.

Also, websites of relevant institutions such as WHO, African Union, World Bank and ministries of health in the WHO African Region were hand searched for relevant policy documents on innovative healthcare financing. Finally, health financing experts in the WHO African Region country offices were contacted to facilitate identifying and collecting relevant documents and reports on innovative health financing within the African Region.

2.3 Study selection

Inclusion

(a) Studies, reports, or policy documents published on any form of innovative healthcare financing mechanisms
(b) Peer-reviewed and grey literature (editorials, commentaries, research, analysis, opinions, etc.)
(c) There were no year limits on studies to be included to trace the genesis of the innovative financing mechanisms
(d) Studies published in all languages.

Exclusion

(e) Studies published on countries outside the WHO African Region were excluded
(f) Studies published on traditional health financing mechanisms (studies that do not meet the three essential criteria of innovative financing mechanisms stated in section1)
(g) Studies that do not mention the country (setting).

2.4 Selection of eligible studies

All the studies identified were imported into a Mendeley® reference manager, where duplicates were identified and merged. Titles of studies were scanned for eligibility. After scanning the titles and excluding irrelevant studies, abstracts of the remaining studies were read to exclude studies that did not fit the scope of the review. Full-text articles of relevant studies were included for further evaluation (critical appraisal). The selection of studies was done independently by two reviewers, and discrepancies in the inclusion or otherwise of a study were resolved by consensus between the two reviewers.

There was no quality appraisal of the studies included as policy documents and peer-reviewed papers of any kind were included in this review. Data from different sources, where possible, were used to validate each other to ensure the accuracy of the content presented.

2.5 Charting the data

Relevant findings from the 30 studies and documents that mentioned innovative financing mechanisms in Africa were retrieved and extracted into a data matrix (Table 2). Where there were conflicting values, the most recent data was retrieved. Preference was given to authentic, country-specific data over global reports in cases where different values were reported. For example, the World Health Organization [40] Report on the global tobacco epidemic 2019: offer help to quit tobacco use reported 33.3% excise tax on tobacco in Ghana as against the 175% reported by the Parliament of Ghana [32] in the Excise Duty Amendment Act gazetted. The figures from the Parliament of Ghana [32] were therefore reported.

2.6 Collating, summarizing and reporting the results

A convergent integrated synthesis and integration of qualitative and quantitative findings from the studies included were undertaken in this review [60, 61]specifically, methods related to how data are combined and the overall integration of the quantitative and qualitative evidence. Introduction: Mixed methods systematic reviews provide a more complete basis for complex decision-making than that currently offered by single method reviews, thereby maximizing their usefulness to clinical and policy decision-makers. Although mixed methods systematic reviews are gaining traction, guidance regarding the methodology of combining quantitative and qualitative data is limited. In 2014, the JBI Mixed Methods Review Methodology Group developed guidance for mixed methods systematic reviews, however, since the introduction of this guidance, there have been significant developments in mixed methods synthesis. As such, the methodology group recognized the need to revise the guidance to align it with the current state of knowledge on evidence synthesis methodology Methods: Between 2015 and 2019, the JBI Mixed Methods Review Methodology Group undertook an extensive review of the literature, held annual face-to-face meetings (which were supplemented by teleconferences and regular email correspondence. Results from quantitative studies were transformed, “qualitized”, and synthesized qualitatively with the findings from the qualitative studies [60]. Qualitization of quantitative findings involves narratively describing numbers and figures to present a qualitative representation or translation of such findings without changing their value [60]. The textual (qualitative) data was then examined, pooled into categories and described similarly to the meta-aggregation process of qualitative studies [60].

2.7 Reporting of findings

The findings from this study were reported according to the Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews (PRISMA-ScR) guidelines [65].

3. Results (Part I)

3.1 Characteristics of studies

Our database search yielded 171 journal papers, of which 15 were included [12–25]. Our additional search mechanisms also provided 26 grey literature, comprising 10 national Acts/policies [26–35], eight multicountry reports [36–43], seven single-country institutional policies [44–50] and a conference paper [51] (Figure 1). Some studies reported one mechanism, while others reported more than five.

Figure 2 shows the yearly distribution of studies included in this review. Generally, the trend of publications on innovative financing mechanisms in the WHO African Region is increasing, with 2021 recording the highest number of publications (n=9).

Five empirical studies on innovative financing mechanisms were from South Africa [17, 20, 23–25]. Five [12, 14, 16, 19, 21] were intercountry, two [15, 18] from Zambia; and one each from Botswana [13], Mauritius [22] and Uganda [66]. Regarding the reports included, the World Health Organization produced the majority (n=6)[36, 39, 40, 43, 48].

Figure 1: Search and inclusion of studies

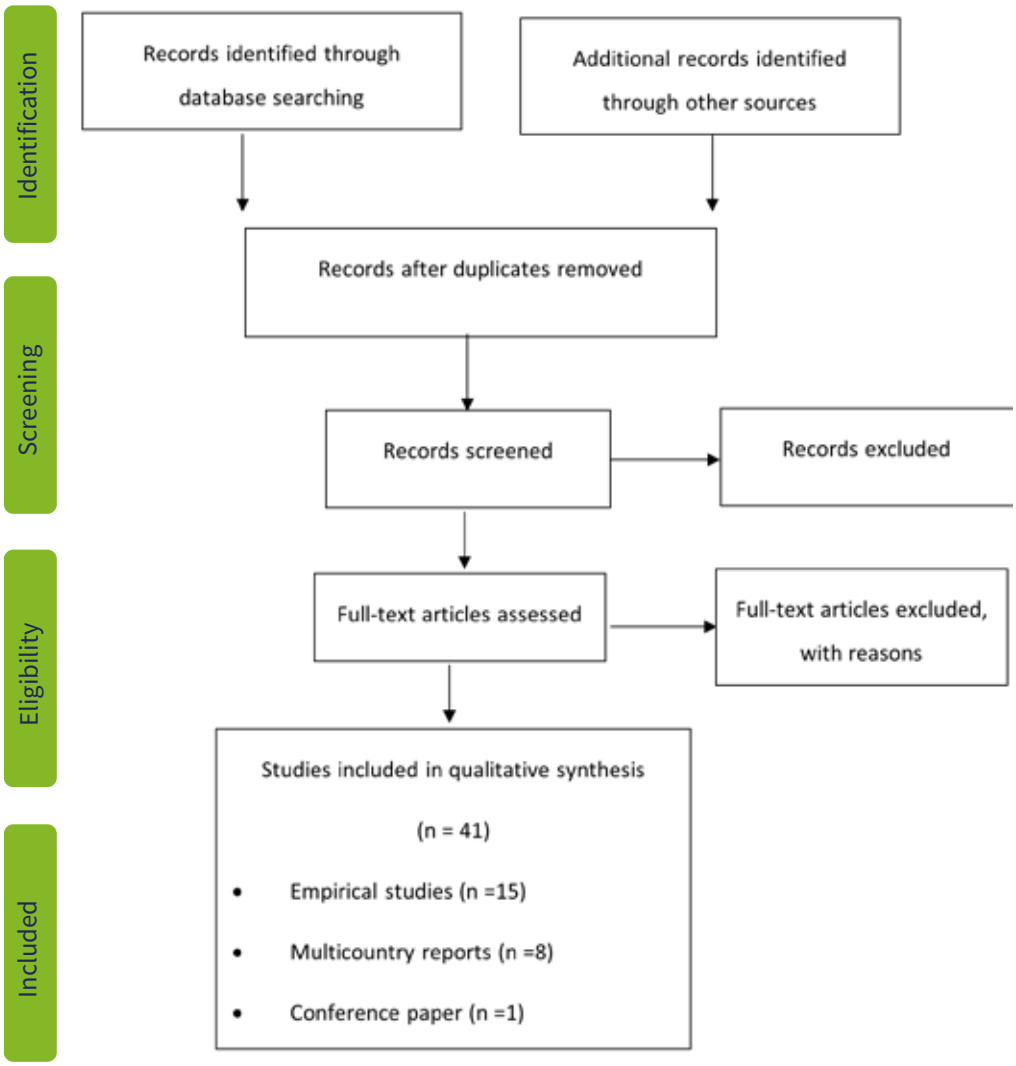
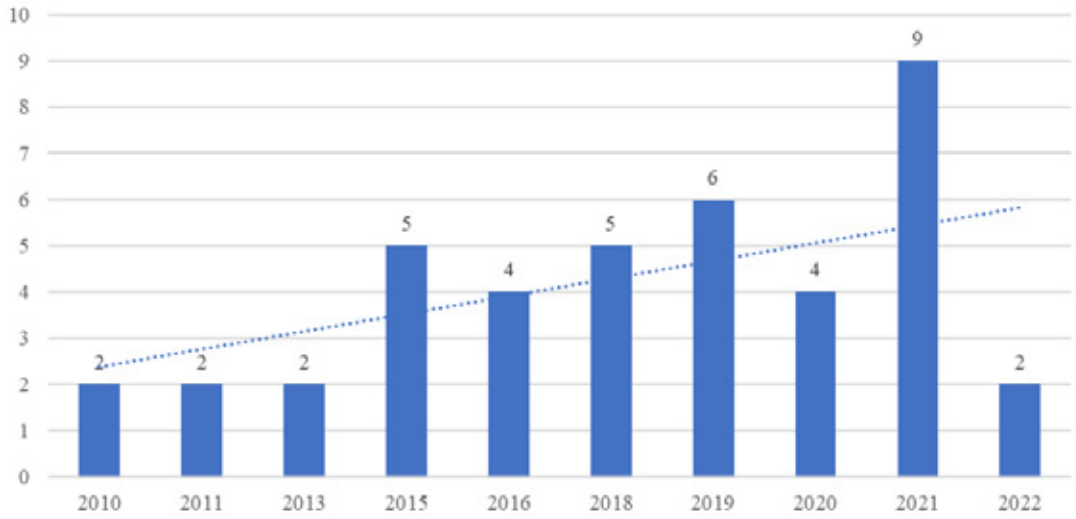


Figure 2: Distribution of studies/documents included



3.2 Innovative financing mechanisms available

The 41 documents included in this review reported 10 innovative financing mechanisms in 43 of the 47 WHO African Region Member States (Table 3). The most common mechanisms include excise taxes on tobacco products (43 countries); excise tax on alcoholic beverages and spirits (41 countries); airline ticket levy (18 countries); sugar-based beverages tax (seven countries), and levy on oil gas and mineral tax (four countries). The rest of the mechanisms include HIV/AIDS trust fund, social impact bond, financial transaction tax, mobile phone tax, and equity fund. It is worth noting that not all the mechanisms generate additional money for the ministries of health but all the mechanisms, in one way or the other, improve healthcare or healthcare behaviour. Loan buydown and Debt2Health were excluded as innovative mechanisms although they generate extra funds for the health system. We did not consider debt relief as innovative. The nature, facilitators and challenges and lessons learnt are presented below.

Table 2: Summary of innovative health financing mechanisms identified

Country	Tobacco tax	Alcohol tax	Airline levy	Sugar tax	Oil, gas, minerals	HIV/AIDS trust fund	Social impact bond	Financial transactions tax	Mobile phone tax	Equity fund
Algeria	X									
Benin	X	X	X							
Botswana	X	X								
Burkina Faso	X	X	X							
Burundi	X	X								
Cabo Verde	X	X								
Cameroon	X	X	X							
Central African Republic	X	X	X							
Chad	X	X								
Comoros	X	X								
Congo	X	X			X					
Côte d'Ivoire	X	X	X							
Democratic Republic of the Congo	X	X	X							
Equatorial Guinea	X	X								
Eretria	X	X								
Eswatini	X	X								
Ethiopia	X	X								
Gabon	X	X	X					X	X	
Gambia	X	X								
Ghana	X	X								
Guinea	X	X	X		X					
Kenya	X	X		X						
Lesotho	X	X								
Liberia	X	X	X							
Madagascar	X	X	X							
Malawi	X	X								
Mali	X	X	X		X					
Mauritania	X	X								
Mauritius	X		X	X						
Namibia	X	X	X							
Niger	X	X	X		X					
Nigeria	X	X								X
Rwanda	X	X		X						
Sao Tome and Principe	X	X	X							
Senegal	X	X	X							
Seychelles	X	X								
Sierra Leone	X	X								

Country	Tobacco tax	Alcohol tax	Airline levy	Sugar tax	Oil, gas, minerals	HIV/AIDS trust fund	Social impact bond	Financial transactions tax	Mobile phone tax	Equity fund
South Africa	X	X	X	X			X			
Togo	X	X	X							
Uganda	X	X		X		X				
United Republic of Tanzania	X	X		X						
Zambia	X	X		X						
Zimbabwe	X	X				X				
TOTAL	**43**	**41**	**18**	**7**	**4**	**2**	**1**	**1**	**1**	**1**

X=available; = no data found

3.3 Nature of innovative financing mechanism implemented in the WHO African Region

The nature of the innovative health financing mechanisms implemented on the continent was described in terms of the structure, the mode of collection and the allocation of the resources. The innovative health financing mechanisms in the WHO African Region can be classified into four main categories: sin taxes, levies and bonds; transaction taxes; and trust funds and equities.

3.3.1 Sin taxes (Excise taxes on harmful goods)

Many countries in the WHO African Region imposed sin taxes on selected goods that were perceived as harmful to the health of the population. These goods include tobacco [67] and cigars which are proven predisposing factors to many cardiovascular, respiratory and digestive disorders. Also, alcoholic beverages, which predispose the population to noncommunicable diseases, injuries and violence, have been taxed by many countries in the WHO African Region [68]. Excise taxes on sugar-sweetened beverages are the most discussed sin tax in the WHO African Region in the last five years, with countries evaluating its feasibility, and developing policies to raise funds for health, sports and recreational activities [15, 25].

Sin taxes are largely voluntary tax systems, which are paid only when the product or services are used. They are either ad valorem, that is, taxing according to the value of the goods, as seen in many of the excise taxes on the continent [40] or specific values imposed on the goods. In most cases, it is charged as a percentage of either factory or retail price of the goods, as seen in Mauritius, where a 183.5% excise tax is imposed on cigarettes [40]. Other instruments also charge specific amounts per package or weight of goods, without segregating them according to the percentage composition of the harmful substance. For example, the Malawi Revenue Authority [33] imposed US$ 15 per 1000 sticks of cigarette. Lastly, a combination of ad valorem and fixed taxes are used in the Region [33]. An example of the combination tax regime is observed in Zimbabwe, where an excise tax of 30% is charged on the retail price of alcoholic beverages plus Z$ 10.00 per litre, and also in Cabo Verde, where 30–50% tax is imposed on cigarettes, cigars and waterpipe tobacco plus 20$00 escudos on each packet of cigarettes [39, 46]. Sin taxes are usually imposed in addition to other regulatory mechanisms to cause a change in the social use of or dependence on the goods that are considered harmful to the life of the population. Time, age, place of use, and percentage composition restrictions are standard policies associated with sin taxes.

3.3.1.1 Excise tax on tobacco

Regarding excise taxes on tobacco products (cigarette, cigars, waterpipes), Uganda, Mauritius and Ghana impose the highest percentage (200% and 183% and 175% respectively). The countries with the least percentage tax are Mauritania (9.6%) excise tax on tobacco and Guinea-Bissau (6.8% excise tax) and Benin (4.9% excise tax on tobacco). Table 3 shows 43 countries in the WHO African Region that impose various forms of excise taxes on tobacco products [40]. It is worth noting that not all excise taxes on tobacco could be termed innovative.

Globally, almost all countries impose excise taxes on tobacco products. In some countries, however, an additional percentage was added to the excise taxes or the already existing taxes were repurposed to fill in a gap in health care. The excise taxes in these two categories are termed innovative health financing. In the WHO African Region, Algeria, Botswana, Cabo Verde, Chad, Comoros, Congo and Mauritania have either repurposed or added to the existing excise tax on tobacco for health or recreation (Table 4). For example, in Algeria, an additional component of the excise tax is invested in emergency care services; Chad and Mauritania invest 2% and 7% of the excise tax in antiretroviral medications and cancer research, respectively; while in Congo, half of the money raised is invested in health insurance [69]. Comoros invests all the money generated from the tax on tobacco in sports and emergency care, while Cabo Verde invests all the money raised from the tobacco tax in sports and health [69]. In Ethiopia, the Ministry of Health has synthesized research evidence to motivate for the money gained from tobacco taxes to be invested in healthcare [26, 69].

Also, research has shown that in Gambia, Madagascar, Mauritius, Mozambique, Senegal, Uganda and Zimbabwe, the increasing tax on tobacco products has made them less affordable, thereby curbing their use [40].

Table 3: Tobacco tax allocated to health and health-related activities in Africa

Country	Tobacco tax system	Earmarked for health
Algeria	34.2%	Used for emergency health services
Botswana	49.9% on production cost and import cost	Earmarked for health
Cabo Verde	11.2%	Used for sports and health care
Chad	34.1%	An additional 2% tax is used for antiretroviral medication
Comoros	37.3%	A portion of the 5% extra tax on tobacco is directed to the Ministry of Sports and another portion to hospital emergency services
Congo	38.7%	50% allocated to health insurance and the other half for sports
Côte d'Ivoire	33.3%	2% of producer prices are used for HIV/AIDs care
Madagascar	80.4%	Allocated to tobacco control, sports and culture
Mauritania	9.6%	Extra 7% on import costs earmarked for cancer research
Mauritius	83.5%	Portion of the funds allocated for the treatment of tobacco-related conditions

Adapted from: WHO report on the global tobacco epidemic 2019: offer help to quit tobacco use [40] and use of earmarked tobacco taxes [69].

3.3.1.2 Excise tax on alcohol

Similar to the sin tax on tobacco products, the quantum of excise taxes on all forms of alcohol vary considerably across the WHO African Region. Data available to the reviewers in this study and presented in Table 3 shows that taxes are imposed on alcohol in 41 out of the 47 countries in the WHO African Region. The rates vary in the specific amount set on a litre of liquor, wine and spirits with different strengths of alcohol content. In South Africa, R77.7 (US$ 4.88) is charged per litre of spirit, (R46 (US $2.89) charged per litre of beer and R7.8 (US$ 0.49) per litre of traditional beer. Furthermore, R3.7 is charged per litre of fortified wine and R6.2 per litre of sparkling wine. In Benin, Botswana, Cabo Verde, Ghana and Zambia, the ad valorem tax rate is applied. Botswana started with a 30% excise tax on alcoholic beverages in 2008. The percentage increased to 55% in 2015. Cabo Verde also implements a percentage excise tax of 50% on all alcoholic drinks and spirits. In Zambia, a 35–75% excise tax was imposed on all alcoholic beverages, but reduced to 60% in 2009 and 40% in 2011. Ghana set 30% while Benin takes only 10% of the value of alcoholic drinks in tax.

In Botswana, 55% of the retail price of alcoholic products is imposed as tax, out of which 10% is allocated to the Ministry of Health, 45% to the consolidated fund and 45% to the Ministry of Youth [13, 37]. An additional 2% is, however, specifically taxed and allocated as the HIV Trust Fund, which is another form of the innovative financing mechanism. Ethiopia's Ministry of Health [26] advocates for the funds raised from taxes on alcohol to be invested in health care.

3.3.1.3 Excise tax on sugar-based drinks

Tax on sugar and sugar-sweetened beverages seems to be the biggest mechanism discussed on the African continent currentTax on sugar and sugar-sweetened beverages seems to be the biggest mechanism discussed on the African continent currently. Seven countries in the WHO African Region: Kenya [21], Mauritius [22], Nigeria [34], Rwanda [21], South Africa [23–25, 35], Uganda[21], United Republic of Tanzania [34] and Zambia [14, 15, 18] have implemented excise taxes on sugar-sweetened beverages.

In Mauritius, a specific excise tax of six cents per gram of sugar is imposed on the industry. To motivate economic activity, drinks for export are exempted from tax. This is to reduce sugar consumption, a well-established factor linked to obesity and its associated noncommunicable diseases and diabetes in Mauritius [22]. In South Africa, the first four grams (per every 100 ml of sugar-sweetened drinks are not taxed. Subsequent grams are charged per the prevailing rate of 2.1 (South African) cents per gram. The tax is charged at the factory. This constitutes US$ 0.15 per gram of sugar in sugar-sweetened beverages. This was done under the Health Promotion Levy (HPL) to reduce the high intake of sugar-sweetened drinks, with their associated health risks. This led to an 11% increase in the cost of sugar-sweetened beverages in South Africa [23–25, 35]. The rate is adjusted yearly to cater for inflation. In Zambia, a 25% excise tax on sugar-sweetened beverages was introduced in 1998. This was repealed in 2015 to favour economic policies and reintroduced in 2018 at 3% on imported items and 0.5% on locally manufactured goods [14, 21].

Data available to the reviewers show that Uganda earmarks all the funds generated from tax on sugar-sweetened drinks for their HIV/AIDs services under the HIV Trust Fund [21]. Rwanda and the United Republic of Tanzania also earmark those funds for health care. In South Africa, a portion of the revenue generated is earmarked for health promotion activities across the country [25] [35].

3.3.2 Levies and bonds

This class of innovative health financing mechanisms comprises: levies charged on air tickets [37, 42]; commitments from governments to invest portions of the funds generated from minerals mined in their countries in healthcare [42]; and payment of the total cost of health care projects undertaken by local institutions funded by other organizations if the project delivers on the set objectives [17, 49].

3.3.2.1 Airline ticket levy

This is an innovative mechanism implemented by a third party (UNITAID) on behalf of interested countries. In the WHO African Region, 19 countries - Benin, Burkina Faso, Cameroon, Central African Republic, the Democratic Republic of the Congo, Côte d'Ivoire, Gabon, Guinea, Liberia, Madagascar, Mali, Mauritius, Morocco, Namibia, Niger, Sao Tome and Principe, Senegal, South Africa and Togo have all subscribed to the mechanism.

The airline charges a mandatory solidarity levy of US$ 1 on economy and US$ 10 on business class airline tickets. Although the mechanism is initiated at the country level, it is coordinated by UNITAID, while the levies are collected by the airlines. Funds collected from the airlines are transferred to the national treasury by UNITAID to fund programmes for AIDS, tuberculosis and malaria in developing countries.

3.3.2.2 Micro levy on oil, gas, gold and other mining activities

Micro levy on oil, gas, gold and other mining activities is managed as that of the airline ticket levy. This mechanism is called a levy as it involves the voluntary subscription of organizations to provide additional funding for specific sector development. It is sometimes referred to as a solidarity levy. A third-party organization, UNITLIFE, initiated this mechanism, which countries subscribe to. UNITLIFE is a unit set up by UN Women, the UN Capital Development Fund (UNCDF), the Government of France, and the Abu Dhabi Crown Prince Court, as an innovative method of raising funds to fight malnutrition during the first 1000 days of a child's life.

With this mechanism, 0.1% of mining, gold, oil and gas revenues are deposited into the UNITLIFE funds by the State and used to fight malnutrition in the countries that have subscribed to the mechanisms [42].

3.3.3 Social impact bond

The social impact bond is a three-year mechanism implemented by the South African Medical Research Council as an HIV prevention intervention for adolescent girls and young women (AGYW) [17, 49]. The Global Fund funded the social impact bond from 2019 to 2022, with the agreement that the South African Government would pay the money back to the Global Fund if the South African Medical Research Council delivered services on behalf of the Government when the outcomes have been achieved.

3.3.4 Transaction taxes

These are taxes imposed on financial transactions to raise funds for healthcare. Two types of transaction taxes were reported in the WHO African Region: mobile phone tax [39, 43, 48] and financial transactions tax [39, 43, 48] reported by Gabon. There was also a 1.5% additional levy on profit after tax on currency and other transactions. The tax was paid by companies that handle remittances. Just like the financial transactions tax, Gabon implemented the mobile phone tax. The instrument involved a 10% tax on mobile phone operators. The funds raised from both mechanisms are earmarked for subsidizing healthcare for the poor in Gabon. It covers more than 99% of the poor.

3.3.5 Trust funds and equity funds

According to our classification, trust funds and equity comprise the mechanisms that seek to harmonize funds generated from donations by a section of the population [50], from government allocation [16, 47, 66], to provide care for a group of people that need it.
The HIV/AID trust fund is an innovative financing mechanism employed by Uganda and Zimbabwe. In Uganda, the trust fund was established by an Act of Parliament, imposing a 2% tax on alcoholic beverages, soft drinks and bottled water to fund HIV care. Although the source of funding for this mechanism (tax on alcoholic beverages and soft drinks) could fall into other categories of innovative financing, this mechanism is holistically considered a trust fund. It was projected to raise about two million United States dollars annually, covering about 0.5% of the total annual expenditure on HIV/AIDs care [66].

In Zimbabwe, the National AIDS Council of Zimbabwe Act added a 3% levy to the Pay-as-you-earn (PAYE) tax and a 3% income tax for corporate bodies, to tackle the burden of HIV/AIDs in Zimbabwe. It is estimated that about US$ 35.5 million was raised in 2014, covering about 15% of expenditure on HIV/AIDS care in Zimbabwe [16, 37].

4. Factors facilitating or inhibiting the implementation of the innovative financing mechanism in the WHO African Region

Factors facilitating or inhibiting the successful implementation of innovative health financing mechanisms in the WHO African Region vary, depending on the nature of the innovative mechanism.

4.1 Sin taxes

4.1.1 Excise tax on alcohol

The excise tax on alcoholic beverages is motivated by similar factors across countries implementing it. First, it is generally accepted that alcohol consumption negatively affects the health of individuals [12,13,36]. Second, the use of alcohol is usually perceived as a precipitating factor for indiscriminate/unprotected sexual intercourse, resulting in increased HIV incidence rates. Third, alcohol consumption is associated with a rising burden of accidents and injuries in most parts of Africa. In Botswana, 90% of the HIV/AIDS funds were used to procure antiretroviral medications, leaving just a little for health promotion and preventive activities [13]. The Government, therefore, needed more funding to invest in HIV prevention activities. Also, lifelong ART treatment for people living with HIV requires sustainable local financing [13]. Again, the consumption of alcohol has been associated with social vices such as gender-based violence [13]. Last but not least, the alcohol industry understood the need for the sin tax [18]. In Zambia, the tax was lobbied for by the Ministry of Health [18].

The inhibitory factors to implementing the excise tax on alcohol could be described in two ways. First is the resistance from the alcohol industry. This includes using economic blackmail to pressure the Government to reduce or scrap the sin tax on alcohol. A typical example was observed in Zambia, where the sin tax on alcoholic beverages decreased from 75% to 60% in 2009 and 40% in 2015 to favour the growth in the alcohol industry. Second, is the resistance from the population that uses alcohol [13], many of whom try to make the Government unpopular for waging war against alcohol users; they purchase alcohol across the border from other countries which do not have the same regulation. The strongest resistance was the Government's economic policies that conflicted with the sin taxes. For example, the Government projected growth in the alcohol industry is hampered by the taxation imposed on the industry.

4.1.2 Excise tax on tobacco

The highest influencing factor is the international policy on tobacco, such as the WHO Framework Convention on Tobacco Control (FCTC) [70] and ECOWAS Tax [46]. Countries are working to meet the requirements of this policy by adjusting the excise taxes to reach the required 70% of the retail price of tobacco products. Multisectoral policy formulation and political will were also cited as facilitating factors [46, 71].

Conflict with economic policies and lobbying from the tobacco industry are key factors that hinder higher taxes on tobacco products.

4.1.3 Excise tax on sugar-sweetened beverages

Generally, the growing burden of noncommunicable diseases forms the foundation of the policy in all countries. The World Health Organization's Fiscal Policies for Diet and Prevention of Noncommunicable Diseases [72] also influenced the formulation of the sugar-sweetened beverages tax policies. As with other excise taxes, the conflict between economic growth and healthy living interferes with the policy implementation.

4.1.4 Levies and bonds

Air ticket levies and micro levies in the extractive sector have been very successful because they have been scientifically proven not to influence air traffic. The instruction is clear, transparent, cost-effective to generate and acceptable to contributors - the levy is relatively small compared to the airline ticket cost. Although the policy is acceptable, stakeholder consultation is poor as there is no organized traveller grouping that could be consulted. Also, they are deliberated at high political levels and are very slow in implementation. Regarding the social impact bond, the executing institution (South African Medical Research Council) has a good track record and credibility to manage the fund, hence was trusted by both the funder (The Global Fund) and the government. There was government commitment to pay the funder according to agreed objectives, although there was little or no government interference during the project execution.

4.1.5 Transaction taxes

Although the financial transaction taxes were easy to implement and provides quick funds for the health sector, the population resisted the instrument, citing the negative influence of the instrument on the national economy as the reason. The mobile phone tax was also easy to implement and did not attract any public resistance because it was directly collected from the telecommunication companies rather than the populace.

4.1.6 Trust funds and equity funds

Key factors that facilitated the success of the HIV Trust Fund in Zimbabwe include advocacy by people living with HIV; establishment of the fund as a seed fund to attract donor funding; strong cooperative governance; clearly defined use of funds; annual work plan, and budget; fund administered according to laid down policies; fund decentralized to the lowest level and active participation of district AIDS action committees. In Uganda, the HIV fund is an instrument that seems to have stemmed from strong political will.

Challenges to the implementation of the instrument include: delays due to bureaucracy; lack of clarity in policy; probability of not using funds for HIV if clearly defined roles are not imputed; coverage of only 0.5% of HIV expenditure; and insufficient technical support for the policy in Uganda. Regarding Zimbabwe, about 70% of the population employed in the informal sector are covered by the fund, whereas the funds are affected by the high inflation rates.

5. Lessons learnt on the design (structure), development and implementation process

Many lessons could be drawn from the structure, development process and implementation of each of the mechanisms described in this document.

5.1 Influence of international policies and innovative financing mechanisms

International health policy is a critical influencer in the conceptualization, development and implementation of innovative health financing mechanisms in the WHO African Region. Article 6 of the FCTC commits parties to using price and tax measures, including excise taxes, on tobacco products, to reduce tobacco use. Many countries aspire to meet WHO's 70% excise tax threshold. Some countries have imposed higher than the threshold, and research has proven that setting higher taxes reduces the harmful products' affordability, thereby reducing their use [46, 51, 70].

The availability of international mechanisms that countries could subscribe to with minimum effort and less administrative involvement also influenced the implementation of innovative health financing mechanisms in the WHO African Region. The airline ticket levy, conceptualized and coordinated by UNITAID to fund tuberculosis, malaria, HIV/AIDS and associated infections is a way of influencing countries to subscribe to the mechanism [3, 73]. This is also true for the micro levy on oil, gas, gold and other mining activities introduced by UNITLIFE to prevent malnutrition in the first 1000 days of life [42]. These mechanisms are easy to manage and administer. The funds are used for the purpose they are raised for. International instruments such as the levies coordinated by UNITAID and UNITLIFE seem compelling.

5.2 Implementation of the mechanism in a cluster

Sin taxes seem to be successful when implemented as part of a cluster of mechanisms to improve the health of the population. In addition to appropriate excise taxation policies, there is a need for complementary non-tax measures that can be effectively targeted at specific consumers and high-risk behaviour patterns. Educational programmes and regulatory interventions to discourage risky and hazardous consumption of unhealthy goods are necessary to complement the excise tax regime [18, 22, 51].

5.3 Intersectoral collaboration is essential for acceptability

Most of the resistance received by sin taxes is from the ministries of finance. They also have the mandate to increase growth in the tobacco, alcohol and sugar industries, in addition to lobbying the big players in the product market [14, 21, 25]. An intersectoral tax policy that considers the necessary national economic programmes and health-related goals is essential to the success of the sin tax mechanisms. Broad-based stakeholder consultations and education on the policy documents required prior to implementation is also critical to the smooth performance of the policy [14, 21, 25].

5.4 Country-level commitment attracts funding

It can be deduced that countries making a sustainable commitment to healthcare have the potential to attract donor funding. The Zimbabwean Aids Trust Fund is considered a best practice in Africa. It provided the National AIDS Council resilience through economic recession [16, 37]. Compared to Zimbabwe, the Zambian trust has policy challenges. Koseki et al. [47] and Birungi and Colbourn [66] revealed that although the policy provides a sustainable funding source, there are questions regarding stakeholder involvement and the structure of the trust

fund. It was also reported that the drive for the trust fund was more political than technical [66].

5.5 Advocacy by the ministries/ departments of health and social groups

In Zimbabwe, advocacy by the population in need played a crucial role in the sourcing of funds for the HIV Trust Fund. The evidence-based investment case made by the Ethiopia Ministry of Health [26] was also influential in implementing the excise tax on sugar-sweetened beverages. Research had shown that healthy eating behaviours were observed when an excise tax on sugar-sweetened drinks was implemented. For example, in South Africa, empirical research has shown that households in urban communities reduced sugar-sweetened drinks consumption by half. Also, compared to non-taxable beverages, consumer purchases of taxable beverages decreased significantly after the policy was implemented. The threshold approach in South Africa incentivizes manufacturers to shift to lower sugar beverages to avoid tax. Academic publications and advocacy by educational institutions were also effective in furthering the implementation of sin taxes in South Africa[15, 24, 74].

5.6 Transparent management of funds builds donor confidence and local commitment

It was reported that the transparent use of the HIV Trust Fund in Zimbabwe built contributor and donor confidence in the instrument. The commission responsible for managing the funds accounts to the population through media updates, generating trust in the Trust Fund. UNITAID and UNITLIFE levies were also transparently managed, building country confidence in such mechanisms [3].

5.7 Need for ministries of health to push for conversion of existing mechanisms into health financing mechanisms

There are excise taxes on tobacco, sugar and alcohol in almost all countries in the WHO African Region, but not all countries earmark a portion or all of these taxes for healthcare. Knowing the adverse effect of these goods on the population's health, the ministries of health can use evidence to make a case for earmarking such revenues for the health sector.

5.8 Data is essential in evaluating the impact of mechanisms

Data challenges marred the evaluation of the interventions of the impact of the social impact bond implemented in South Africa. It was also reported that coverage was poor in the first year of implementation as COVID-19 lockdown and school closures affected coverage. It is essential to set up empirical studies to collect data on the effectiveness of innovative health financing mechanisms for evaluation. South Africa has successfully evaluated the impact of the excise tax on sugar-sweetened beverages [15, 24, 74].

Part II: Estimation of amount raised (2015–2020)

6. Methodology

6.1 Conceptual framework

The first step in estimating the volume of funding from innovative financing mechanisms was to identify countries that have implemented them. This first step was completed in the literature review. The second step was to analyse and classify the funding mechanisms identified in each country. The volume of funding from the innovative financing mechanism was defined as gross yearly disbursement by the organization managing the mechanism to each of the African countries identified. Commitments made for future funding were excluded. In addition, we excluded innovative mechanisms that funded the organization that disbursed funds to countries, to avoid double counting. The analysis therefore focused on the volume of funding for health care. All countries identified to have implemented innovative financing in the first phase were included in the analysis.

6.2 Data Sources

Data on the volume of funding from innovative mechanisms were sourced from the websites of the organization responsible for disbursing funds, government financial reports and literature. Domestic innovative mechanism data were collected from government financial reports and from the Organisation for Economic Co-operation and Development's Global Revenue Statistics Database. Additional data was sourced from published reports and published literature. Exchange rate data was collected from ExchangeRates.org.

6.3 Data analysis

Before computing annual revenues generated under each funding mechanism, data was standardized. Revenue reported in local currencies was converted into nominal US dollars. Annual revenues generated were computed based on reported amounts. The volume of funding was then estimated for each country over the period 2015–2020. Microsoft Office Excel was used for data compilation and analysis. Analysis was done by country, year and innovative funding category. All revenues were reported in 2020 US dollars using the GDP deflator indices from the United States Department of Commerce, Bureau of Economic Analysis, National Income Product Account Tables. Countries with no data on revenue generated from innovative financing mechanisms were excluded from the analysis.

7. Results

7.1 Amount raised from the innovative health financing mechanisms

The results of the revenue generated from innovative financing mechanisms are presented in this section. We report on revenue generated from domestic sources, as data on other innovative financing mechanisms were not available. Tobacco and alcohol taxes were the main source of revenue from domestic mechanisms. While more than 30 African countries have implemented alcohol and tobacco taxes, we only report on revenue from 14 countries due to unavailability of data (Figure 3 and Table 5). Sugar taxes or sugar-sweetened beverage tax were a source of revenue in Mauritius, Senegal, South Africa and Uganda.

Figure 3: Volume of funding from domestic mechanisms by year (12 countries)

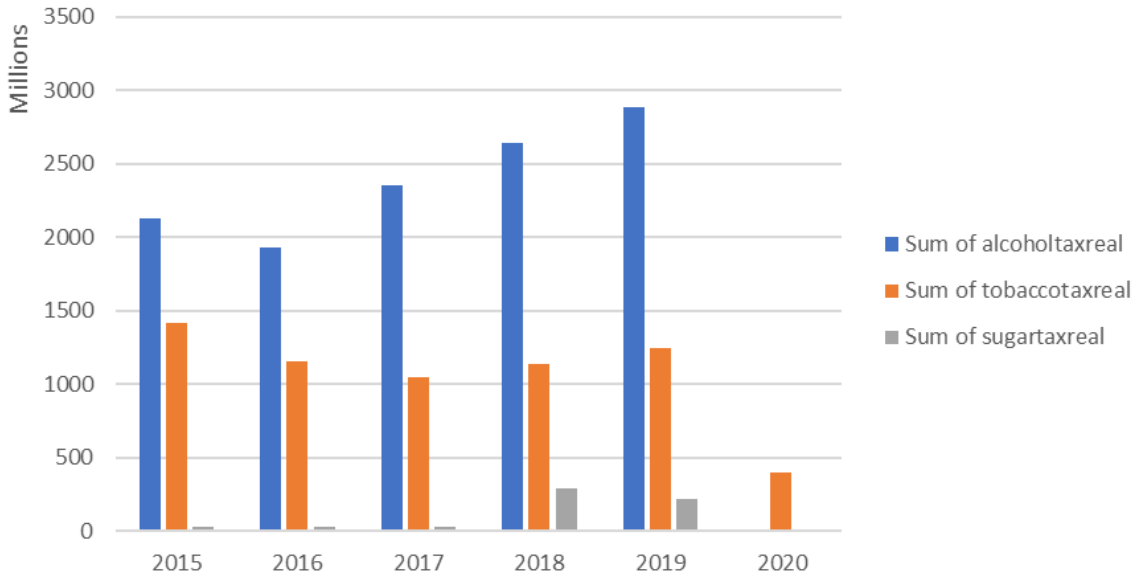


Table 4: Volume of funding from tax mechanisms (US$) (12 countries)

Country	Alcohol tax	Tobacco tax	Sugar tax
Burkina Faso	288 057 389	12 269 385	
Cameroon		5 439 077	
Congo	92 654 377		
Côte d'Ivore	196 246 289	147 083 808	
DRC	713,434,627	246 976 651	
Niger	14 926 296	127 807 618	
Mali			6 308 035
Mauritius			5 7408 197
Rwanda	324 478 843		
Senegal	59 385 639	143 267 945	5 9385 639
South Africa	9 089 693 474	4 995 622 046	430 642 196
Uganda	324 993 345	153 898 211	144 156 609
Zimbabwe	597 531 707	526 462 801	

7.1.1 Tobacco tax

Revenue from tobacco taxes in eight countries amounted to over US$ 6 billion between 2015 and 2020 (Table 5). South Africa generated most of the revenue with nearly US$ 5 billion. Other countries generated less than US$ 1 billion, with countries such as Zimbabwe generating just over half a billion US dollars.

7.1.2 Alcohol tax

Among the countries included in the analysis, South Africa generated the highest revenue from tobacco taxation mechanisms. Between 2015 and 2020, more than US$ 9 billion in revenue was generated from alcohol tax (Table 5). This was followed by the Democratic Republic of the Congo, with just over US$ 700 million and Zimbabwe with nearly US$ 600 million. All other countries generated revenue of less than US$ 500 million with Congo and Senegal generating less than US$ 100 million during the period under review.

7.1.3 Sugar and SSB tax

Between 2015 and 2020, Mali, Mauritius, Senegal, South Africa and Uganda generated US$ 698 million of revenue from sugar and SSB taxes (Table 5). The SSB tax in South Africa was introduced in 2018. Between 2018 and 2020, US$ 430 million was generated from the tax. Approximately US$ 144 million from sugar tax was generated in Uganda between 2015 and 2020 while Senegal and Mauritius generated US$ 59 million and US$ 57 million respectively.

8. Discussion

This report sought to explore the innovative health financing mechanisms/instruments in the World Health Organization African Region member states and to describe the facilitating and inhibitory factors influencing the implementation of such instruments. Further, the report sought to determine how much was raised over the period 2016-2021.

Innovative health financing mechanisms are defined in terms of three factors. Firstly, *additionality*, the requirement that the instrument provides additional funds to fill in gaps that the usual allocation to the health sector is not able to cover. Secondly, *effectiveness*, that is, the money generated from the mechanism is used for the right purpose and well accounted for. Lastly, *efficiency,* which requires value for the use of the funding accrued from the instrument [55]. Data limitations could not permit the review team to explore the efficiency and effectiveness of the mechanisms identified. Only a few papers evaluated the use of the funds accrued from the mechanisms. It was therefore impossible to review the mechanisms based on these two criteria. The key criterion considered in this review is the additionality and allocation to the health sector. Also, the reviewers could not find data on the disbursement of funds of some existing mechanisms, - they were kept on the data extraction sheet for future updates whenever data are available.

We found that innovative financing is growing on the continent with the already existing government mechanisms that are used to raise funds for the consolidated funds. These funds are being reviewed in terms of health policy. Ministries of health are also beginning to receive some funds from the proceeds as well as benefits of the mechanisms. For example, most countries that implement a tobacco tax (excise tax on all tobacco products), automatically cause an increase in the price of tobacco products, thereby reducing their affordability and use. However, the tax generated goes to the consolidated fund in majority of cases. The same observation is made for taxes imposed on sugar-sweetened beverages and alcohol products. One difficulty is drawing the line between health financing and other forms of financing. Does funding sports and recreation consider health financing? To what extent is funding not allocated to the ministry of health defined as health financing?
The growing trend in innovative health financing mechanisms across the continent could be attributed to four broad factors. First, international policies on harmful products, such as the World Health Organization *Framework Convention on Tobacco Control* (WHO FCTC), influence excise taxes on tobacco products [70]. The World Health Organization's *Fiscal Policies for Diet and Prevention of Noncommunicable Diseases* [72] also significantly impact the imposition of excise taxes on sugar-sweetened drinks across Africa. *The second is the* availability of international mechanisms to which countries could subscribe easily. These international mechanisms include the airline ticket levy managed by UNITAID and the levies on oil, gas, gold and other mining activities collected by UNITLIFE [3]. Third, learning from each other. Many countries are considering introducing an excise tax on sugar-sweetened beverages, because it has been successfully introduced in other countries [21]. This could also be attributed to the publicity received by these policies on the continent. Situational analysis and recommendations have been made in many countries. Ministers of Health need to learn from the example of the Zambia Ministry of Health to advocate for such sin taxes to be allocated to health, if they already exist, or imposed, if otherwise [75]. Lastly, the increasing burden of noncommunicable diseases on the continent has compelled countries to impose sin taxes to manage healthcare behaviour among their populace [22, 51]. Lobbying and advocacy from ministries of health were seen as strong support for the imposition of excise taxes. Advocacy by civil society organizations and academia was also seen as strong evidence for the imposition of such taxes as observed in South Africa [21, 24].

The resistance to implementing the mechanisms could also be classified into two broad areas—first, the conflict between the healthy lives of the population and the economic growth policies [21]. Many multinational and national companies such as Coca-Cola, sugar-sweetened beverage manufacturers/importers, cigarette and cigar manufacturers/importers and beer and spirit manufacturing companies have lobbied and openly campaigned against the implementation of excise taxes that will increase their cost of import or production, thereby reducing the affordability of their goods [12, 23, 25, 76] implementation, monitoring and evaluation of sugar-sweetened beverage (SSB. Their argument includes creating jobs, building infrastructure and boosting the tax economy [21]. Secondly, resistance from the consumers was also a critical inhibitory factor. Effective intersectoral committees on NCD excise taxes resolve such conflicts [21]. In Botswana, for example, the population that drinks alcohol had media conversations and devised strategies to oppose the excise tax on alcohol, including buying alcohol from neighbouring countries and making the Government look unpopular [13] in the process.

We also found that other mechanisms such as Debt2Health and loan buydown generate an additional funding source for the health system. Debt2Health is a debt relief programme, where a creditor forgives a debtor a portion of the loan to invest into health. For example, Germany forgives Côte d'Ivoire a debt of US$ 27 million if Côte d'Ivoire invests at

least 50% of the debt in HIV/AIDs programmes [16]. On the other hand, a loan buy-down is a mechanism in which a debtor is forgiven part or all of the loan facility they received if they meet the set objectives of the project the loan was credited for. Sometimes, a donor may commit to paying back the loan if the debtor meets the project objectives. An example is the buydown mechanism that occurred in Botswana, where US$ 50 million was granted to the country by the World Bank, with the European Commission committing to pay (buydown) US$ 20 million of the loan received if Botswana meets specific objectives. These two debt conversion mechanisms were not considered as innovative health financing, although other institutions, such as the Global Fund [37], ascribe that title to them [3].

Some mechanisms are implemented as a cluster of interventions that influence health care behaviour. For example, excise taxes on tobacco are implemented in tandem with smoke-free areas, age restrictions, no advertisement, and health warnings on packages [19]. Regarding alcoholic beverages, legal drinking and no drinking in public are other interventions taken to complement the excise tax. These interventions show that innovative excise tax mechanisms are not meant for fund raising alone [21,24]. Bird & Wallace [38] referred to these mechanisms as the "public health model" of taxing. Beyond raising funds, the model seeks to influence the consumption of alcoholic beverages, which may have adverse effects on the health and social life of the population.

9. Conclusion

Innovative health financing mechanisms do exist and are on the increase in countries across the continent, owing to international policy on the issue, the need to improve healthy eating and social life, advocacy and the international mechanisms that are available for countries to subscribe to. The funds generated from many instruments are not allocated to health care, although some portions are earmarked for sports and other health-related activities. It is therefore unclear where the lines are drawn regarding what constitutes innovative health financing and to what extent funds allocated to allied health activities are considered health financing. The innovative financing mechanism that sought to impose excise taxes (sin taxes) on harmful or unhealthy products such as alcoholic beverages and sugar-sweetened drinks conflicts with country-level economic growth policies and therefore receives persistent resistance from the production sector. Formulating intersectoral committees to develop and implement the innovative mechanisms involving excise taxes was highly recommended as a possible solution to the conflicts of interest.

10. Recommendations

Based on the findings of this study, the following recommendations were made:

(a) This review should be made a long-term exercise and updated yearly as data is reported/published or made available.

(b) Africa-wide empirical research to collect and analyse data from government sources on how much was raised from innovative health financing mechanisms reported in this study and how much was allocated to the ministries/departments of health will be essential.

(c) WHO AFRO should raise awareness in all its Member States to inform and train ministers of health on their role in seeking ways to ensure that innovative financing mechanisms are implemented and allocated to health care.

(d) Member countries should be encouraged to take advantage of the international innovative financing mechanisms available on the continent.

(e) Member countries should be encouraged to set up multisectoral innovative health financing committees to manage the implementation of excise tax on sectors that might conflict with the country's economic policies.

(f) In developing countries, especially in the African Region, a clear-cut definition of innovative health financing should be developed, demarcating which sector funding could be considered innovative health financing.

(g) Health care providers and other pro-health institutions and those that promote healthy lifestyles should be encouraged to come out and, together, advocate for innovative financing mechanisms (excise tax on unhealthy food or substances) and ensure that they are implemented on the continent.

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ANNEX: DATA MATRIX

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
1	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Algeria	Report	• WHO FCTC article 6 - price and tax measures	…	34.2% excise tax on tobacco products	…	Additional tax to support emergency care	Yes
2	World Health Organization [40]		Not indicated	Benin		• WHO FCTC article 6 - price and tax measures	…	4.9% Excise tax on tobacco		Tax did not affect smoking behaviour	
3	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Botswana	Report	• WHO FCTC article 6 - price and tax measures	…	49.9% excise tax tobacco products	…	Not known if the tax reduced tobacco use among the population	Yes
4	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Burkina Faso	Report	• WHO FCTC article 6 - price and tax measures	…	41% excise tax on tobacco		Not known if the tax reduced tobacco use among the population	…
5	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Burundi		• WHO FCTC article 6 - price and tax measures		42.8% excise tax imposed on tobacco		Not known if the tax reduced tobacco use among	
6	World Health Organization [39] and United Nations Development Programme [46]	Sin tax on tobacco products	Not indicated	Cabo Verde	Report	• Article 6 of the WHO FCTC • ECOWAS tax • Ministries of health and finance worked collaboratively	• An ad valorem tax makes increasing the tax difficult	Currently 30%–50% tax on cigarettes, cigars and waterpipe tobacco plus 20$00 escudos on each package of cigarettes	…	There is a need to remove the ad valorem tax and make it simple for automatic increment All the money raised is invested in sports and health	Yes
7	Mapa-Tassou et al.[19]	Sin tax on Tobacco products	Not indicated	Cameroon		• Proposed by the health sector • WHO and the establishment of the FCTC in 2003 • Multisectoral approach to policy formulation • Political will • Commitment by all stakeholders	• Lack of funds • Lack of synergy among stakeholders	25% excise tax on tobacco products	…	…	No
8	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Central African Republic	Report	• WHO and the establishment of the FCTC in 2003		41.5% excise tax on alcohol products	…	…	…
9	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Chad	Report	• WHO and the establishment of the FCTC in 2003	…	34.1% excise tax tobacco products	…	2% of the tax goes to antiretroviral medication	Yes
10	World Health Organization [39]	Sin tax on tobacco products	Not indicated	Comoros	Report	• WHO and the establishment of the FCTC in 2003	…	37.3% of tobacco producer price	…	The 37.2 is lower than the 70% recommended by the WHO All amounts raised are disbursed to Ministry of Sports and for health emergencies	Yes
11	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Congo		WHO and the establishment of the FCTC in 2003	…	37.1% on tobacco products	…	50% of the tax is invested in health insurance	Yes
12	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Cote d'Ivoire	Report	WHO and the establishment of the FCTC in 2003	…	33.3% excise tax on tobacco	…	Tax did not influence consumption of tobacco	…
13	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Democratic Republic of the Congo	Report	WHO and the establishment of the FCTC in 2003	…	38.7% excise tax on tobacco	…	Tax did not influence consumption of tobacco	…
14	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Equatorial Guinea	Report	WHO and the establishment of the FCTC in 2003	…	25.3% excise tax on tobacco	…	…	…
15	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Eritrea	Report	WHO and the establishment of the FCTC in 2003	…	55.4% excise tax on tobacco	…	…	…
16	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Eswatini	Report	WHO and the establishment of the FCTC in 2003	…	52.7 excise tax on tobacco	…	Tax did not influence consumption of tobacco	…
17	Ethiopia Ministry of Health [26]; World Health Organization [40]	Sin tax on tobacco products	Instrument developed in 2018	Ethiopia	Report	• Influenced by the WHO FCTC • Research evidence from the Ethiopian market • Evidence shows negative influence of tobacco on health status • Tax reduces consumption	There is likelihood of Ministry of Finance pushing back on the tax systems due to its impact on export revenue	To impose an extra 10% tax on cigarettes for health purposes. To reduce affordability and use of tobacco products, especially among the poor	This is estimated to produce million ETB 90 per annum	The increasing price will likely influence tobacco use among the poor. A strong evidence-based case to the Ministry of Finance and cabinet will be essential in implementing these taxes Specific tax better than ad valorem	Motivate for earmarking of resources for health

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
18	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Gabon	Report	• WHO and the establishment of the FCTC in 2003	…	23.1% excise tax on tobacco	…		…
19	World Health Organization [40]	Sin tax on Tobacco products	Not indicated	Gambia	Report	• WHO and the establishment of the FCTC in 2003	…	46.3% excise tax on tobacco	…	Tax reduced the consumption of tobacco	…
20	Parliament of Ghana [32] and Wellington [51]; World Health Organization [40]	Tobacco tax	2015	Ghana	An Act of Parliament	• WHO FCTC article 6 - price and tax measures	…	This is a 150% excise tax imposed on tobacco products (Cigarette and cigar) in 2014. This has been increased to 175% in 2015.	…	Tax did not influence tobacco use	No
21	World Health Organization [40]; www.tobaccofreekids.org [41]	Sin tax on tobacco products	Not indicated	Equatorial Guinea	Report	• WHO FCTC article 6 - price and tax measures	…	25.3% excise tax on tobacco	…	…	…
22	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Guinea-Bissau	Report	• WHO FCTC article 6 - price and tax measures		6.8% excise tax on tobacco	…	…	…
23	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Kenya	Report	• WHO FCTC article 6 - price and tax measures		52.3% excise tax on tobacco	…	Tax did not influence tobacco use	…
24	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Lesotho	Report	• WHO FCTC article 6 - price and tax measures		50.9% excise tax on tobacco	…	Tax did not influence tobacco use	…
25	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Liberia	Report	• WHO FCTC article 6 - price and tax measures		34.8% excise tax on tobacco	…	…	…
26	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Madagascar	Report	• WHO FCTC article 6 - price and tax measures	…	80.4% excise tax on tobacco	…	Tax reduced tobacco use among the population	…
27	World Health Organization [40]; Malawi Revenue Authority [33]	Sin tax on tobacco products	2017	Malawi	Report	• WHO FCTC article 6 - price and tax measures • Harmonized rate will discourage falsification of country of origin of tobacco products and encourage local production of cigarette to produce jobs.		Excise tax of US$ 15 per 1000 sticks of cigarette	…	…	…
28	World Health Organization [40]	Sin tax on tobacco products	Not indicated	Mali	Report	• WHO FCTC article 6 - price and tax measures	…	27.7% excise tax on tobacco	…	Tax did not influence tobacco use	
29	World Health Organization [40]	Tobacco tax	Not indicated	Mauritania	Report	• WHO FCTC article 6 - price and tax measures	…	9.6% excise tax on tobacco	…	Revenues from additional 7% tax on goods invested in cancer research	Yes
30	World Health Organization [40]	Tobacco tax	Not indicated	Mauritius	Report	• WHO FCTC article 6 - price and tax measures	…	183.5% excise tax on tobacco	…	Tax reduced tobacco use	…
31	World Health Organization [40]	Tobacco tax	Not indicated	Mozambique	Report	• WHO FCTC article 6 - price and tax measures	…	28.5% excise tax on tobacco	…	Tax reduced tobacco use	…
32	World Health Organization [40]	Tobacco tax	Not indicated	Namibia	Report	• WHO FCTC article 6 - price and tax measures	…	44.1% excise tax on tobacco	…	…	…
33	World Health Organization [40]	Tobacco tax	Not indicated	Niger	Report	• WHO FCTC article 6 - price and tax measures	…	31.3% excise tax on tobacco	…	…	…
34	World Health Organization [40]	Tobacco tax	Not indicated	Nigeria	Report	• WHO FCTC article 6 - price and tax measures	…	29.7%excise tax on tobacco	…	Tax did not reduce tobacco use	…
35	World Health Organization [40]	Tobacco tax	Not indicated	Rwanda	Report	• WHO FCTC article 6 - price and tax measures	…	55.9% excise tax on tobacco	…	Tax did not reduce tobacco use	…
36	World Health Organization [40]	Tobacco tax	Not indicated	Sao Tome and Principe	Report	• WHO FCTC article 6 - price and tax measures	…	40.4% excise tax on tobacco	…	Tax did not reduce tobacco use	…
37	World Health Organization [40]	Tobacco tax	Not indicated	Senegal	Report	• WHO FCTC article 6 - price and tax measures	…	38.2% excise tax on tobacco	…	Tax reduced tobacco use among the population	…
38	World Health Organization [40]	Tobacco tax	Not indicated	Seychelles	Report	• WHO FCTC article 6 - price and tax measures	…	70.1% excise tax on tobacco	…	…	…
39	World Health Organization [40]	Tobacco tax	Not indicated	Sierra Leone	Report	• WHO FCTC article 6 - price and tax measures	…	18.6% excise tax on tobacco	…	…	…

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
40	Zatoński et al [20]	Tobacco tax	1993		Empirical paper (based on systematic review of media/ news articles)	• Public consultation process on proposed Bill • Existing legislative framework on tobacco control • Evidence on burden for South Africa's economy and healthcare through tobacco-related hospitalizations, productivity loss, premature mortality and the financial impact on South African families • Potential economic and health benefits	• Potential to increase illicit tobacco trade in South Africa • Potential adverse impact on agriculture and township businesses • Significant industry resistance and lobbying • Substantial public debate	40 % excise tax plus 12 % VAT making 52% tax on tobacco in South Africa	…	• Media (print and online) plays a significant role in framing the debate on tobacco control and taxes • Strong industry lobby supported by access to resources and mainstream media platforms used to drive particular narrative against proposed changes • Economic arguments critical of the Bill were promoted by tobacco industry spokespeople, trade unions, organizations of retailers, media celebrities and think tanks— • Opportunistic and inappropriate use of data/evidence to drive anti-regulation narrative	No
41	World Health Organization [40]	Tobacco tax	Not indicated	Togo	Report	• WHO FCTC article 6 - price and tax measures	• …	22.0% excise tax on tobacco	Report		
42	Government of Uganda [30]; World Health Organization [40]	Excise tax on tobacco products	Act amended in 2016	Uganda	National Act	WHO FCTC article 6 - price and tax measures	…	An excise tax of 200% on tobacco and tobacco products	…	Reduced tobacco use in the population	…
43	World Health Organization [40]	Tobacco tax	Not indicated	United Republic of Tanzania	Report	WHO FCTC article 6 - price and tax measures	…	31.2%% excise tax on tobacco	…	…	…
44	World Health Organization [40]	Tobacco tax	Not indicated	Zambia	Report	WHO FCTC article 6 - price and tax measures	…	41.2% excise tax on tobacco	…	…	…
45	World Health Organization [40]	Tobacco tax	Not indicated	Zimbabwe	Report	WHO FCTC article 6 - price and tax measures	…	35.9% excise tax on tobacco	…	Reduced tobacco use in the population	…
46	World Health Organization [36] and Sornpaisarn et al.[12]	Excise tax on alcoholic beverages	Not indicated	Benin	Report			10% ad valorem tax rate on alcoholic beverages			…
47	The Global Fund [37] and Sebeelo TB [13]	Excise tax on alcoholic beverages	Not indicated	Botswana	Report	• Alcohol abuse is a key contributory factor in HIV infection • Lifelong ART treatment requires sustainable funding • It is least regressive • Less distortionary • Introduced with other regulatory mechanisms such as curfew on sales	• Increasing alcohol-related deaths • Resistance from users of alcoholic beverages • Increases social drinking • Resulted in illegal alcohol sale and consumption • Some media reported the policy was not born out of evidence	Alcoholic beverages were taxed 30% in 2008 to demotivate excessive drinking and raise funds to care for people suffering from alcohol-related ailments, and for public education on alcohol and alcohol law enforcement. The levy has increased three times to 55% by 2015.	…	Only 10% of the funds go to the Ministry of Health. 45% goes to the consolidated fund and 45% to the Ministry of Youth.	Yes
48	World Health Organization [36]; Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Burkina Faso	Report	…	…	Excise tax of 25% on beer, wine and distilled spirits	…	…	…
49	World Health Organization [39] Price water house Coopers [44]	Excise tax on alcoholic beverages	Not indicated	Cabo Verde	Report	…	…	A 40% excise tax on alcoholic beverages	…	…	No
50	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Cameroon	Report	…	…	…	…	…	…
51	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Central African Republic	Report	…	…	…	…	…	…

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52	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Chad	Report	…	…	…	…	…	…
53	World Health Organization[39]	Excise tax on alcoholic beverages	Not indicated	Comoros	Report	…	…	…	…	…	…
54	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Congo	Report	…	…	…	…	…	…
55	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Democratic Republic of the Congo	Report	…	…	…	…	…	…
56	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Côte d'Ivoire	Report	…	…	…	…	…	…
57	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Equatorial Guinea	Report	…	…	…	…	…	…
58	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Eretria	Report	…	…	…	…	…	…
59	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Eswatini	Report	…	…	…	…	…	…
60	World Health Organization [36] and Ethiopia Ministry of Health [26]	Imposing 5% increase on alcoholic beverages	Developed in 2018	Ethiopia	Report	• Potential improvement in the health of population. Ministry of health led	…	An additional excise tax	1.8 billion per annum	A strong evidence-based case to the Ministry of Finance and cabinet will be essential in implementing these taxes	Urge earmarking of resources for health
61	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Gabon	Report	…	…	…	…	…	…
62	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Gambia	Report	…	…	…	…	…	…
63	World Health Organization [36] and Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Ghana	Report	…	…	30% on beer and 25% on spirits	…	…	
64	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Guinea	Report	…	…	Imposed 5% on beer and 30% on distilled spirits	…	…	…
65	National Council for Law Reporting [27]	Excise tax on alcoholic beverages	2015	Kenya	National Act	Negative effects of alcohol on the Kenyan population	Resistance from the alcohol industry.	Imposed KSh 150 on wines and fortified wines and other fermented fruits and KSh 200 per litre on spirits and other alcoholic beverages with more than 10% alcohol content. This price is reviewed annually.		Kenya has recently imposed more tax on alcohol advertisement with the purpose of curbing excessive alcohol consumption	
66	World Health Organization [36] and Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Lesotho	Report	…	…	Imposed 2.239 cents per litre of beer; 169 cents per litre of fortified wine, 77 cents per litre of imported unfortified wine and 7.82 cents per litre of imported unfortified wine; and 254.8 cents per litre of spirits.	…	…	…

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67	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Liberia	Report	…	…	…	…	…	…
68	World Health Organization [45]	Excise tax on alcoholic beverages		Madagascar	Policy brief	…	…	…	…		
69	World Health Organization [36] and Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Malawi	Report	…	…	Imposed 15% excise tax on opaque beer and 30% on others; 65% on wines; and 65% on spirits	…	…	…
70	World Health Organization [36] and Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Mali	Report	…	…	Imposed 5% on all alcoholic beverages	…	…	…
71	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Mauritius	Report	…	…	An excise tax of 40.3% of re-tail process of beer, 11.9% of retail price of wine and 62.5% of retail price of spirits	…	…	…
72	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Namibia	Report	…	…	…	…	…	…
73	World Health Organization [36] and Bird & Wallace [38]	Excise tax on alcoholic beverages	Not indicated	Niger	Report	…	…	Imposed 25% excise tax on malt beer; 45% on other forms of beer; wine and Spirits.	…	…	…
74	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Nigeria	Report	…	…	…	…	…	…
75	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Rwanda	Report	…	…	Imposed 57% on domesti-cally produced beer, 220% on imported Amstel, CIF); and 57% on other imported beer; 70% on wine and 30% on spirits.	…	…	…
76	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Sao Tome and Principle	Report	…	…	…	…	…	…
77	Alcohol and tobacco tax and trade bureau 2011 [28]	Excise tax on alcoholic beverages		Senegal	Website	…	…	Imposed 20% tariff with 1% statistical tax, 1% community solidarity levy and 18% VAT on alcohol products. High concentration of alcohol also attracts extra tax	…	…	…
78	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Seychelles	Report	…	…	…	…	…	…
79	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	Sierra Leone	Report	…	…	…	…	…	…
80	World Health Organization [36]	Excise tax on alcoholic beverages	Not indicated	South Africa	Report (web-based dataset)	• Positive health benefits • Positive spillover effects (reductions in GBV, violence, MVAs, etc.)	• Strong lobby from alcohol industry • Downstream effects on suppliers (increase in costs, etc.) • Upstream effects on township businesses (price increases could lead to reduced de-mand)	R 46.4 per litre of malt/clear beer and 7.8 cent per litre of traditional beer, R3.7 per litre of fortified wine, R6.2 per litre of sparkling wine, R2.0 on unfortified wine, and R 77.7 on spirits	Not indicated	In addition to appropriate excise taxation policies, there is a need for complementary non-tax measures that can be effectively targeted at specific consumers and high-risk behaviour patterns. Educational programmes and regulatory interventions aimed at discouraging risky and hazardous alcohol consumption are necessary to complement the alcohol excise tax regime.	No

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81	United Republic of Tanzania [29]	Excise tax on alcoholic beverages	Not indicated	United Republic of Tanzania	Government Gazette	…	…	Ad valorem of TSh 540 per litre on spirits distilled locally from grapes; TSh 3978 on other locally produced spirits; TSh 4386.06 on spirits from distilling grape wine; TSh 2386 per litre on whiskies; 4386.06 per litre on spirits distilled from sugarcane; TSh 4386 per litre of Gin, vodka, liqueurs, cordials and other spirits.	…	…	…
82	World Health Organization [36]; Bird & Wallace [5]	Excise tax on alcoholic beverages	Not indicated	Togo	Report	…	…	Imposed 10% excise tax on beer, 15% on wine and spirits	…	…	…
83	World Health Organization [36]; Government of Uganda [30]; Bird & Wallace [5]	Excise tax on alcoholic beverages	Not indicated	Uganda	Report	…	…	An excise tax of 60% on beer (malt; 30% on beer using 75% or above of local materials; 60 % on imported beer; 60% on wine and Spirits.	…	…	…
84	World Health Organization [36] and Mukanu et al [18]	Excise tax on alcoholic beverages	Not indicated	Zambia		• The industry understood the need to tax beverages	• The sin tax is in opposition to the economic policy of the country	A 35%-75% excise tax imposed on alcoholic beverages was reduced to 60% in 2009 and to 40% in 2011.			…
85	Zimbabwean Government 2021 [31]		Not indicated	Zimbabwe		Sales of alcohol massively increased from 2019 to 2020. Political will and the need to curb NCDs.	…	30 %retail price plus ZW$ 10.00/L	…	The Vice- President, who is also the Minister of Health proposed increasing the excise tax to fund health. The tax system should change from type of alcohol to tax according to the alcoholic content of the drink.	
86	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	After 2006	Benin	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based • Poor stakeholder consultation • Slow implementation	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	This levy is used to fight HIV/AIDS and tuberculosis. Other African countries considering a similar mechanism. They include Chad, Kenya, Mozambique and Nigeria	Yes
87	The Global Fund [37] and Carter [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	After 2006	Burkina Faso	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	This levy is used to fight HIV/AIDS and tuberculosis programmes.	Yes
88	The Global Fund [37] and Carter [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Cameroon	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	**2006-2012** Cameroon: 1 430 000 2011:2018	…	Yes

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89	The Global Fund [37] and Carter Center [42]	Airline levies: $1–$2 on economy and US$ 10 on business class air tickets. Initiated by country and coordinated by UNITAID to fund healthcare	After 2006	Central African Republic	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to Contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
90	The Global Fund [37] and Carter Center [42]	Airline levies: $1–$2 on the economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Democratic Republic of the Congo	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006-2012 Congo: 1 090 000	This levy is used to fight HIV/AIDS and tuberculosis programmes.	Yes
91	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by country and coordinated by UNITAID to fund healthcare	After 2006	Côte d'Ivoire	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
92	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	After 2006	Gabon	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High level political commitment • Good leadership • Evidence-based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
93	The Global Fund[37] and Carter Center [42]	Airline levies: $1–$2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Guinea	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006-2012 Guinea: 49 000	…	Yes
94	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on the economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	After 2006	Liberia	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to Contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes

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95	The Global Fund [37] and Carter Center [42]	Airline Levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Madagascar	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006-2012 Madagascar: 30 000	…	Yes
96	The Global Fund[37] and Carter Center [42]	Airline Levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Mali	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006-2012 Mali: 928 000	…	Yes
97	The Global Fund[37] and Carter Center [42]	Airline Levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Mauritius	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006–2012 q: 8 741 000	…	Yes
98	The Global Fund[37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	After 2006	Namibia	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use		…	Yes
99	The Global Fund[37] and Carter Center [42]	Airline Levies: US$ 1–US$ 2 on Economic and 10 USD on business class air tickets. Initiated by the country and coordinated by UNITAID to fund healthcare	2006	Niger	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to Contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy. • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	2006-2012 Niger: 281 000	…	Yes

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
100	The Global Fund [37] and Carter Center [42]	• Mandatory solidarity levy on airline tickets • Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. • Initiated at country level and coordinated by UNITAID to fund healthcare	After 2006	South Africa	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors - the levy is a relatively small amount	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	Not reported *(figures in report are for the period 2006 -2012)*	• Economically neutral, equitable and transparent. • Research has shown that it has no negative effect on air traffic, airline jobs or profitability. • Administratively simple and cost effective. • Positive reception among passengers and tax payers	Yes *(UNITAID funds programmes for AIDS, tuberculosis and malaria in developing countries.)*
101	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated at country level and coordinated by UNITAID to fund healthcare	After 2006	Sao Tome and Principe	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
102	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets Initiated by country and coordinated by UNITAID to fund healthcare	After 2006	Senegal	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
103	The Global Fund [37] and Carter Center [42]	Airline levies: US$ 1–US$ 2 on economy and US$ 10 on business class air tickets. Initiated at country level and coordinated by UNITAID to fund healthcare	After 2006	Togo	Report	• It was scientifically proven that it has no influence on air traffic • Legislative review and clarity • It is a transparent way of generating money • Cost effective to generate • Acceptable to contributors	• High-level political commitment • Good leadership • Evidence-based	• Country makes the policy • UNITAID coordinates • Airlines collect and declare tax • Funds collected from the airlines are transferred to the national treasury for use	…	…	Yes
104	Thow et. al. [21]	Excise tax of KSh 20 ($0.20) on sugar confectionery	…	Kenya	• Policy analysis	• Growing rate of noncommunicable diseases • Food security • International policies	• Economic policies	Excise tax of KSh 20 ($ 0.20) on sugar confectionery	…	…	…
105	Beebeejaun [22]	Sugar-based beverage taxes 3 cents per gram of sugar in sugar- sweetened drinks both imported or locally manufactured from 2016.	2016	Mauritius	Empirical study	• Noncommunicable disease burden • Government commitment	…	Specific excise tax/duty Currently 6 cents per gram of sugar. Drinks being exported are exempted from the tax. This is to reduce the consumption of unhealthy food, and in effect, lower the risk of non-communicable diseases in Mauritius.	…	The levy resulted in reduction in sugar consumption. Recommendations were made for similar tax on salt and fatty foods.	No

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
106	Federal Republic of Nigeria [34]	Excise tax on sugar-sweetened beverages (SSBs)	2021	Nigeria	• Government gazette	…	…	An excise tax of N10 per litre on all carbonated and sugar-sweetened drinks	…	…	…
107		Excise tax of 39% on soft drinks, including non-SSBs	…	Rwanda	• Policy analysis	• Growing rate of noncommunicable diseases • International policies	• Economic policies	Excise tax of 39% on soft drinks, including non-SSBs, with revenue earmarked broadly for Government	…	Earmarked broadly for Government	Yes
108	Republic of South Africa [35]; Stacey et al. [23]; Stacey et al. [24] & Karim, Kruger & Hofman [25]	Sugar-based beverage taxes implemented in 2018. This constitutes $0.15 per gram of sugar in sugar-sweetened beverages. This was done under the Health Promotion Levy (HPL) to reduce the high intake of sugar- sweetened beverages with their associated health risks.	2017	South Africa	Empirical papers	• Positive impact on healthy living • Easily implementable • Transparent system	• Opposition from the sugar industry • Affects the income of sugar growers • Some job losses • Increases the cost of beverages by 11% • Price of sugar cane reduced	The first 4g per every 100 ml is not charged. Subsequent grammes are charged per the prevailing rate (2.21 SA cents) per gram. The tax is charged at the source of manufacture Money generated is transferred to national revenue fund. The rate is adjusted yearly to cater for inflation	First year: R2 billion	• Requires a protracted legislative process, including extensive public consultations • Households in urban communities reduced their sugar-sweetened drinks consumption by half. • Compared to nontaxable beverages, consumer purchases of taxable beverages reduced significantly after the implementation of the policy. • The threshold approach is an incentive for manufacturers to shift to lower sugar content beverages to avoid tax.	No (although some of the revenue raised from the HPL will be “soft-earmarked” for health promotion activities across government.
109	Thow et al.	Excise tax on nonalcoholic beverages and levy on imports	…	United Republic of TanzanWia	• Policy analysis	• Growing rate of noncommunicable diseases • International policies	• Economic policies	TSh 54 ($0.02) per litre on nonalcoholic beverages and levy on imports	…	Earmarked broadly for Government	Yes
110	Thow et al. [21]	Excise tax on nonalcoholic beverages and levy on sugar	…	Uganda	• Policy analysis; Government Gazette	• Growing rate of noncommunicable diseases • International policies	• Economic policies	60% excise tax on alcohol and 80% on spirits	…	Earmarked for HIV/AIDS Trust Fund	Yes
111	Thow et al. [14]; Thow et al.[21]; Hangoma et al [15] which has been partly linked to consumption of sugar sweetened beverages (SSBs ; Mukanu et al [18]	Sugar tax in Zambia in 1998.	…	Zambia		Strong lobbying from the health sector Opportunities exist to strengthen the policy through broad-based consultation	• The general public was poorly educated about the tax • The policy conflicts with economic growth policies • Pushback from Government economic policies sector and industry	*25% excise tax on sugar-sweetened beverages was introduced in 1998.* *This was repealed in 2015 to favour economic policies.* *Currently 3% on imported beverages and 0.5% locally manufactured drinks*	…	The studies and economic modelling predicted 25% excise tax on SSBs, which will have a positive impact on the consumption of SSBs in Zambia but the final policy only imposes $0.02) (3%) excise tax on SSBs. Compared to the 20% recommended by WHO, this is way too low.	…
112	Carter Center [42]	Micro levy on oil, gas, gold and other mining activities	2015	Republic of the Congo	Report	• Acceptable to contributors • It is a transparent way of generating money • Cost effective to generate	• Lack of result management • Uneven application of value for money criteria	*UNITLIFE introduced 0.1% levies on oil, gas, gold and other mining activities to raise funds for nutrition.* *The Democratic Republic of the Cong imposed 0.10 USD per barrel of oil sold.* *This has the potential to raise USD100-200 million annually in Africa*	…	…	Yes
113	Carter Center [42]	Micro levy on oil, gas, gold and other mining activities	2015	Guinea	Report	• Acceptable to contributors • It is a transparent way of generating money • Cost effective to generate	• Lack of result management • Uneven application of value for money criteria	*UNITLIFE introduced 0.1% levies on oil, gas, gold and other mining activities to raise funds for nutrition.*	…	…	Yes

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
114	Carter Center	Micro levy on oil, gas, gold and other mining activities	2015	Mali	Report	• Acceptable to contributors • It is a transparent way of generating money • Cost effective to generate	• Lack of result management • Uneven application of value for money criteria	*UNITLIFE introduced 0.1% levies on oil, gas, gold and other mining activities to raise funds for nutrition.*	…	…	Yes
115	Carter Center [42]	Micro levy on oil, gas, gold and other mining activities	2015	Niger	Report	• Acceptable to contributors • It is a transparent way of generating money • Cost effective to generate	• Lack of result management • Uneven application of value for money criteria	*UNITLIFE introduced 0.1% levies on oil, gas, gold and other mining activities to raise funds for nutrition.*	…	…	Yes
116	Atun et al. [16] and The Global Fund [37]	AIDS Trust Fund (a tax/levy-based instrument)	2000	Zimbabwe	A systematic review to identify innovative financing in SSA	• Advocacy by people living with HIV • Established as a seed fund to attract donor funding • Strong cooperative governance • Clearly defined use of funds • Annual workplan and budget • Fund administered according to laid down policies • Fund decentralized to the lowest level • Active participation of district AIDS action committees	• Strict financial plans that allocate majority of funds to ARVs limit expenditure on health promotion • 70% of the population employed in the informal sector are not taxed. • Funds are affected by hyperinflation	Trust fund 3% levy on PAYE and 3% on income tax for corporate bodies established by National AIDS Council (NAC) of Zimbabwe Act, to tackle the burden of HIV/AIDs in Zimbabwe	2012: 32 640 678 2013: 34 236 005 2014: 35,5 million This accounted for 15% of the health expenditure on HIV/ AIDS.	• Levy is deposited into NAC's account directly • Advocacy by the population in need plays a key role in sourcing funds. • Countries making sustainable commitment to healthcare have a potential for attracting donor funding. • Funds have been used transparently and solely for the purpose for which they were raised. • This is considered a best practice in Africa. It provided the NAC resilience through economic recession. • There was accountability through the media updates, generating trust in the scheme	Yes
117	Birungi & Colbourn [66] and Koseki, Fagan & Menonc [47]	HIV/AIDS Trust Fund	2012	Uganda	Policy document	• Strong political will	• Delay in implementation due to bureaucracy • Lack of clarity in policy • Funds may not be used for HIV if clearly defined roles are not imputed • Only 0.5% of HIV expenditure is covered • There was insufficient technical support for the policy.	Trust Fund established by an Act of parliament- The HIV and AIDS Prevention and Control Act 2% tax on alcohol, soft drinks, beer and bottled water to fund HIV care	Projected $2 million per annum which translates into 0.5% of HIV expenditure.	Although the policy provides a sustainable source of funding, there are questions regarding stakeholder involvement, the structure of the trust fund. Research found that there is much work to be done on the policy. The drive for the trust fund was more political than technical	Yes
118	World Health Organization [39], Health Organization [43]and World Health Organization [48]	Financial transaction tax	Not indicated	Gabon		• Easy to implement	• Protest action stating that it will restrict exchange	A 1.5% post levy on post tax of profit on currency and other transactions. Tax was paid by companies that handle remittances	Levy on currency and other financial transactions and mobile phone tax, generated $30 million in 2009	The funds are used to subsidize healthcare for the poor in Gabon. It covers more than 99% of the poor	Yes
119	World Health Organization [39], Health Organization [43] and World Health Organization [48]	Mobile phone tax	Not indicated	Gabon	…	…	…	10% tax on mobile phone operators	Levy on currency and other financial transactions and mobile phone tax, generated $30 million in 2009	The funds are used to subsidize healthcare for the poor in Gabon	Yes

No.	Author, year	Financing mechanism/ instrument	Year of inception	Setting /Country	Methodology	Facilitators	Inhibitors	Nature/ Structure	Amount (USD) raised each year 2015-2020	Lessons from development and implementation processes	Earmarked for health (Yes/No)
120	SAMRC [17,49]	Social impact bond SAMRC HIV prevention intervention for adolescent girls and young women (AGYW)	2019	South Africa	Evaluation report	• Government payment is outcome based • Donor funds implemented directly • Funder and implementer have track records • Less Government interference in the implementation process	• Quality of the service delivery was not optimum	Social impact bond funded by Global Fund from 2019-2022 Government pays a funder who funds an institution to deliver services on behalf of the government when the outcomes have been achieved.	Not reported	• Data challenges marred the evaluation of the interventions • Coverage was poor in year 1 of implementation • COVID-19 lockdown/ school closures affected coverage	Yes
121	Health Policy Project[50]	Equity fund	Not indicated	Nigeria	Report	• Community involvement	…	Mobilizing money from communities to provide care in the local community	…	…	…


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