Published in final edited form as:

Health Policy Plan. 2023 November 28; 38(10): 1154–1165. doi:10.1093/heapol/czad079.

The political economy of financing traditional vaccines and vitamin A supplements in six African countries

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Abstract

Vaccines and vitamin A supplementation (VAS) are financed by donors in several countries, indicating that challenges remain with achieving sustainable government financing of these critical health commodities. This qualitative study aimed to explore political economy variables of actors' interests, roles, power and commitment to ensure government financing of vaccines and VAS. A total of 77 interviews were conducted in Burundi, Comoros, Ethiopia, Madagascar, Malawi and Zimbabwe. Governments and development partners had similar interests. Donor commitment to vaccines and VAS was sometimes dependent on the priorities and political situation of the donor country. Governments' commitment to financing vaccines was demonstrated through policy measures, such as enactment of immunization laws. Explicit government financial commitment

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Author contributions

J.N., G.C.A. and A.A. were involved in the conceptualization, data collection, analysis and draft of the manuscript. J.A., A.S. and A.H. critically reviewed the manuscript, and S.W.P. and U.K.G. engaged in conceptualization, design and critical review of the manuscript. All authors contributed to the final approval of the manuscript.

Reflexivity statement

The primary authors of the study were from the University of Ghana. At the time of data collection, UNICEF authors were based in the New York headquarters and in the Regional Office of Eastern and Southern Africa. Investigators are a mix of male and female authors from lower-middle income and high-income countries. While some of the authors are UNICEF staff, their views and positions did not influence the analysis and interpretation of the study findings. All authors have varied experience in health policy and health systems research as well as qualitative and quantitative analysis skills.

Ethical approval. The study was reviewed by the authors institutes and determined not to be human subject research. Ethical approval was not required for this study.

Conflict of interest. None declared.

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to VAS was absent in all six countries. Some development partners were able to influence governments directly via allocation of health funding while others influenced indirectly through coordination, consolidation and networks. Government power was exercised through multiple systemic and individual processes, including hierarchy, bureaucracy in governance and budgetary process, proactiveness of Ministry of Health officials in engaging with Ministry of Finance, and control over resources. Enablers that were likely to increase government commitment to financing vaccines and VAS included emerging reforms, attention to the voice of citizens and improvements in the domestic economy that in turn increased government revenues. Barriers identified were political instability, health sector inefficiencies, overly complicated bureaucracy, frequent changes of health sector leadership and non-health competing needs. Country governments were aware of their role in financing vaccines, but only a few had made tangible efforts to increase government financing. Discussions on government financing of VAS were absent. Development partners continue to influence government health commodity financing decisions. The political economy environment and contextual factors work together to facilitate or impede domestic financing.

Keywords

Political economy; health financing; vaccines; immunization; vitamin A; donor funding; overseas development assistance; qualitative research; policy analysis

Introduction

Gavi, the Vaccine Alliance, was founded in 2000 to facilitate the introduction of new and underutilized vaccines in low- and middle-income countries (LMICs); by 2022, 57 eligible countries could apply for support for 11 different vaccines (Gavi, 2022). Before Gavi was established, most LMICs offered six antigens in their childhood vaccination schedule: Bacille Calmette–Guerin (BCG), oral poliovirus, combined diphtheria–tetanus–pertussis (DTP) and measles vaccine. These vaccines, licensed between 1921 and 1963, have sometimes been referred to as ‘traditional vaccines’ as a distinction from newer vaccines, such as the hepatitis B vaccine licensed in 1986 and *Haemophilus influenzae* type b vaccine licensed in 1987 (Gavi, 2023).

Gavi operates a co-financing policy that requires countries to co-procure a portion of the awarded new and underutilized vaccines. Countries are divided into groups according to gross national income (GNI) per capita, which serves as a proxy for ability to pay (Henderson et al., 2016). The trajectory towards self-financing is achieved by annual increases in co-financing levels in the highest income groups. Since country governments have shown high adherence to allocating Ministry of Health (MOH) budgets and expenditures towards co-procurement, the policy is generally regarded as a successful way to achieve financial sustainability (Cambridge Economic Policy Associates, 2019).

While Gavi-supported vaccines are continuously cofinanced by domestic resources, some LMICs rely on bilateral donors or UNICEF to finance traditional vaccines. Since traditional vaccine prices are several-fold less than those for new and underutilized vaccines, this can seem paradoxical (UNICEF, 2020). An unpublished 2017 survey revealed that 9 out of 21 (43%) countries in UNICEF’s Eastern and Southern African Region and 7 out of 24 (29%)

countries in the West and Central African Region do not pay for traditional vaccines from their national government budget. Instead, bilateral donors, including Japan International Corporation Agency (JICA), Korean International Corporation Agency (KOICA), China Cooperation and pooled multi-donor funds, are financing the traditional vaccines.

Vitamin A supplementation (VAS) is a lifesaving and highly cost-effective intervention in countries with high levels of Vitamin A deficiency. Adequate intake of vitamin A is one of six interventions in the package of Essential Nutrition Actions (World Health Organization, 2019). Most countries implementing VAS campaigns receive vitamin A capsules as an in-kind donation from the Government of Canada, through a programme implemented jointly by Nutrition International and UNICEF. In some LMICs (e.g. Bangladesh, India, Nepal), domestic governments and other donors also procure and provide capsules. However, the in-kind donation programme supplies >90% of global capsule requirements and there has not yet been a shift towards self-financing of vitamin A capsules.

Traditional vaccines and VAS are included in the WHO Model List of Essential Medicines (World Health Organization, 2021). These are traditional health commodities that require long-term and ongoing funding predictability, which is best ensured by inclusion in MOH budgets. Donor financing is often determined by political developments and commonly granted only in the short-term, or even on a year-by-year basis. As explained by Drake *et al.*, health aid is volatile and funding streams for essential services can dry up as donor interests shift or funding flows reduce (Drake et al., 2023). For vaccines, reliance on unpredictable donor financing has led to vaccine stock-outs (Huffstetler et al., 2022). The reasons why some LMICs continue to rely on donor financing for traditional health commodities may not only be due to budgetary constraints. Political relationships between governments and donors can play a part and should be considered when planning for transition of commodities to government financing.

While economics is the study of the optimal use of scarce resources, political economy begins with the political nature of decision making and explores how politics affects economic choices in a society. Political economy most commonly draws upon economics, sociology, political science and public policy analysis in explaining how political institutions, the political environment and the economic system influence each other. Political economy differs from more traditional economic perspectives in that it seeks to better understand and analyse the contestation of interests, and engages core concepts, such as power, incentives, interest groups, ideas and institutions (GSDRC, 2009; Participants at the Bellagio Workshop on Political Economy of Global Health, 2015; Whaites, 2017). The objective of this cross-country, qualitative study was to apply a political economy framework to understand the reasons why donors and governments continue to rely on external financing for traditional vaccines and VAS.

Methods

This qualitative study involved semi-structured interviews with key informants. The study was undertaken in Burundi, Comoros, Ethiopia, Madagascar, Malawi and Zimbabwe. The six countries were purposively selected as Eastern African countries where traditional

vaccines and VAS are financed by donors. Table 1 provides selected demographic, health and economic indicators. Coverage rates of traditional vaccines are shown in Table 2.

Interviewees were purposively selected if they were involved in, or knowledgeable about, financing of traditional vaccines and/or VAS. Interviewees included MOH staff, bilateral donors and UNICEF staff (see Table 3). Where an agency did not have an in-country office, the regional or headquarters office was contacted for a phone interview. In total, 77 key informants were interviewed, with a range of 10–16 per country.

The interview topic guide was based on a preliminary study framework. The interviews included several questions on each of the following topics: state of financing traditional vaccines and VAS, actors and their characteristics (e.g. understanding, interest, commitment, influence) as well as contextual factors that facilitate or impede financing of traditional vaccines and VAS. The questions were open-ended, with probes used to explore points raised by interviewees or for clarification if more information was required.

Interviews were conducted between June 2019 and April 2020 by three of the authors (JN, GCA and AA). Interviews were conducted in English in Ethiopia, Malawi and Zimbabwe and in French in Burundi, Comoros and Madagascar. Interviews lasted between 60–90 min and were primarily conducted in-person at scheduled times suitable to the respondents. Only a few interviews were conducted online. In all, 60 of the interviews were recorded while 17 participants declined to be recorded. Recorded interviews were transcribed and, if necessary, translated into English. Detailed notes were taken for interviews that were not recorded. Only members of the project team had access to data files. Only organizational (i.e. no personal) identifiers were collected from participants.

Study framework

The study framework draws from Campos and Reich (2019) and Sparkes et al. (2019). Campos and Reich (2019) proposed that understanding of decision making for successful health policy implementation is dependent on the interconnectedness of people and institutions within and outside of government, including political leaders, decision makers, bureaucracies and beneficiaries, interest groups and donors. Sparkes et al. (2019) adapted this framework for analysing the politics of health financing reforms. Our study framework included five of the politics components proposed by Sparkes *et al.*: (1) leadership, (2) budgets, (3) bureaucracies, (4) external actors and (5) external context (Figure 1) and excluded two (interest groups and beneficiaries).

'Leadership politics' explores whether health commodity financing is a priority and whether political leaders are committed to take and implement decisions in the area. 'Budget politics' explores how political economy variables influence budget allocations for health commodities, including interactions among MOH, Ministry of Finance (MOF) and legislature stakeholders amid competing demands from other sectors. 'Bureaucratic politics' explores the relationships between and within government agencies that play a role in financing traditional vaccines and VAS, including how political economy variables manifest in those relationships and how they lead to conflicts, negotiation and compromise. 'External actor politics' explores how the agencies that give aid, or serve as conduits for

aid, exert influence, sometimes based on their interests or home country's domestic policies. 'External environment' explores how context can serve as a facilitator or a barrier to health commodity financing decisions and implementation.

Analysis

Thematic content analysis was used to explore the interview data. A codebook was developed containing a priori codes derived from the political economy variables in the framework, whilst emergent codes were identified through the review of transcripts. Quotes for each code were examined, and matrices and memos were used to organize and examine the information for patterns and to develop emerging interpretations. Each interview transcript was coded independently by two coders (JN, GCA, and/or a research assistant) in Microsoft Word. This was followed by a discussion of coding for quality assurance and completion of coding.

Ethics

The study was reviewed by the US Centers for Disease Control and Prevention's Center for Global Health and determined not to be human subject research. Prior to interviews, the aim of the study was explained and an information sheet was provided describing the study objectives, procedures, benefits, risks, data use and investigator contact information. After discussing any questions or concerns, interviewees signed a consent form.

Results

Financing of traditional vaccines and VAS until 2019 In Zimbabwe, the government fully financed traditional vaccines until the economic crises in the year 2000. Between 2000–2019, the Government did not contribute financially. The government of Comoros did not contribute anything until 2019 when they covered 50% of the costs. The Madagascar Government similarly contributed 45% of traditional vaccine purchases in 2019. In Ethiopia, a loan from the World Bank was used to finance traditional vaccines in 2019. In Malawi, a proportion of traditional vaccines were financed through the donor-funded Health Services Joint Fund (Box 1). None of the six countries made any government contributions towards the purchase of VAS commodities in 2019; all countries received vitamin A capsules as in-kind donations from the Government of Canada. Development partners in Ethiopia, Zimbabwe and Malawi financed health commodities, including vaccines, through a pooled fund (Box 1), while direct contribution was used in Madagascar, Burundi and Comoros.

In Madagascar, the National Vaccination Fund Law was passed in 2016 (Law No. 2016–058) with the aim of ensuring financial sustainability of vaccines. According to article 15 of the act, funding should come from specific credit entered in the finance act of each year, included in the budget of the MOH. In addition, the fund can also receive resources from donors and parafiscal charges. Pooling resources from different sources and ensuring that all funds are implemented through the government financing system is a way to reduce fragmentation and promote sustainability. However, at the time of interviews in 2019 the law had not yet begun to be implemented.

Leadership politics

A summary of the findings according to the framework components is presented in Table 4.

Although most participants perceived that governments had an incentive to invest in health commodities due to the value placed on the health of their populations, such incentives were not translated into interests and commitments. Except for Comoros and Madagascar, which pay for 50 and 45%, respectively, of their traditional vaccine purchases, there was a lack of clarity on governments' level of commitment, although stakeholders generally perceived government contributions as low. For VAS, none of the countries had any strategy for contributing to its purchase. Some participants pointed out that the government prioritized other projects, such as infrastructure and agriculture, over vaccination and VAS. Within the health sector, other programmes were also given more attention than traditional vaccines and VAS.

> *"The Government of Ethiopia is very concerned about … [security] stability and that is a priority that takes money so not the ultimate time of talking about increasing domestic financing [for health]."* (Government, Ethiopia)

> *"Government has various priorities. Some of them are more beneficial politically and as such it is very easy for government to concentrate certain issues that can make it popular and forget certain things that are important but are not named in public"* (Civil Society, Malawi)

> "*From 2000 onwards really, the economic performance was very weak to a point where we then began to rely on external support to procure vaccines and of course the main of course is GAVI, bringing them through UNICEF. So, that's all I can say, that in almost 40 years, the first 20 years, we were able to self-sustain, the next 20 years where we are still, really we have to depend solely on external support, but it can end.*" (Development Partner, Zimbabwe)

> *"Vaccination is a high priority for the government, as is the commitment to free care for pregnant women and children under 5 years old, but there are many priorities (malaria, HIV AIDS), efforts are being made by the government. GAVI co-financing is expected to be honored".* (Government, Burundi)

Generally, development partners argued that their primary interest lies in their motivation to see improvement in health and wellbeing of populations. In addition, issues around human security and the need to build the capacity of MOHs to respond to health needs were reported to be important drivers. The political environment in the recipient country was identified as a key factor incentivizing behaviours. Development partners were mindful that the political context and development priorities within their own countries could change and influence the direction of support. Some government respondents highlighted that donor interests are often hidden in conditionality that comes with financial support.

> *"…One of the main objectives of [participant organization] is to step up human security, and health is amongst the first domain that should be cared about in order to reach the so-called human security."* (Development Partner, Madagascar)

"The migration is an issue,… let's try and do it [support] where we can address issues of migration. Nowadays, development cooperation, I call it sometimes, is like a dashboard. You put the [development partner country] in the middle and then, there is a red dot. The closer you are to the red dot the more you score for getting development money. Yeah, because that's where we hope that it will stop the migration." (Development Partner, Ethiopia)

"… donors, they don't just give money for free. Normally they come with a lot of strings attached to the aid. And more often they try to put in some [conditions] which perhaps don't speak to our culture as Africans –." (Government, Malawi)

Budget politics

Some participants indicated that the level of resources dedicated to health results from power relations within government, specifically between the MOHs and MOFs. Some participants expressed that the MOH has control over the resources from donors that go directly to them, and that the MOF does not have the power to control or even know everything that goes to the MOH. Therefore, although it is thought that the MOH is dependent on external support, the exact amount is unknown to other government agencies that have control over government resource allocation. Some government participants expressed the opinion that it is the responsibility of the MOH to request whatever financial resources it requires. On the other hand, the MOF has the responsibility to provide the financial resources to the MOH within the constraints of government resources. If the MOH is perceived as having access to external funding, this may undermine their case when competing for scarce government resources with ministries that have less opportunity for external support. The amount of the requested financial resources received was described as dependent on the level of influence of the MOH and individual officials:

"…From my understanding they [MOH] do not face budget shortage. I think this is because they get support from others… when they bring the budget request, they will ask you X amount above the ceiling but [they] do not defend that. When the budget hearing ends and you even give them half of this, they will not ask you additional in the middle of the year." (Government, Ethiopia)

"In fact, this is my personal opinion; they leave it [not engaging the MOF for increased allocation] because they think that partners are helping. Because they know that we are here, they don't think that they should also put a share and invest in this issue." (Development Partner, Madagascar)

"The people invited are not often at the budget negotiations meeting or they send people who are not aware of the needs and who do not defend the project at all. This results in a drop in the current level of allocations. The MOF seems to have its own priorities and vaccination is barely represented". (Government, Burundi)

"I think, as long as the Vitamin A capsules are available from UNICEF and they know they are there, they will prioritize their resources to other things. They will actually shift and put the resources that they could put in Vitamin A. But, if say tomorrow, UNICEF was not able to provide the Vitamin A capsules and the effect that they've got technical people who appreciate the effect that Vitamin A is of

high impact intervention and also at low cost, they would allocate some resources to it. Not be much difficult because Vitamin A capsule do not cost that much." (Development Partner, Zimbabwe)

Development partners believed that they have the ability to influence government's direction on health commodity financing, either directly through their financial resources and technical capacity or indirectly through advocacy. Participants argued that each partner has its own unique level of influence based on resource contributions. Therefore, even partners (such as USAID, Bill and Melinda Gates Foundation, World Bank) who do not often directly contribute to common resource pools have a certain level of influence that they could bring to bear on governments to allocate more domestic resources for health commodities. Participants also suggested that high-powered development partner staff play influential roles in sourcing funds for health commodities. This was because without the necessary push, activities and funds geared towards tackling vaccine-preventable diseases would remain under-prioritized.

"… I mean, you come in the country, you provide the assistance, you decide on what the priorities are, you give money, possibly for good reasons but you know, still, you are sitting in the driver's seat and behind the steering wheel. So, if then you decide, "no, you see, it's like my children; now you are 18, I think you should find a job". You know, that's the parents deciding that and the relationship should not be a parent–child relationship." (Development Partner, Ethiopia)

In the three countries that used pooled funds (Ethiopia, Zimbabwe and Malawi), the platform served as an avenue for consolidating the influence of development partners. The existence of active donor coordination groups for health provided another avenue for consolidating influence, allowing development partners to present a united front while attempting to influence the government's decisions concerning health commodity financing.

Bureaucratic politics

In all countries, the bureaucratic budget process creates an avenue for politics between the MOFs and MOHs, which affects allocation of funds for health commodities. For instance, in Ethiopia and Comoros, there was a lack of clarity about which entity actually determines what should be funded: whereas the MOF argues that they give the budget ceiling to MOH to decide what they want to fund, the MOH argues that the final decision on funding commodities lies with the MOF. In Burundi, Comoros and Madagascar, the MOH is perceived as not taking full advantage of the budget process, which requires defending of the budget in the assembly, to push the agenda of commodity financing. In Burundi, stakeholders argued that sometimes officers of the MOH do not show up in budget hearings and processes. The politics of the bureaucratic budget process, including clarity of roles and responsibilities, could limit attempts at pushing an agenda for health commodity financing in the country.

Within the MOH there are many levels of decision making between the Expanded Programme on Immunization (EPI) manager or head of nutrition and the Minister for Health, which cause power dynamics. If there is an official in the decision-making chain who does not have strong persuasive abilities and a network, they may not be in a position

to influence financing decisions. The personal interest of the individual heading relevant technical offices in the MOH was identified as an important factor in whether health commodity financing was brought to the attention of higher-level officials. Individuals who were passionate about vaccination and disease eradication pushed more for funds to get the job done, while others needed to be cajoled to get results. Participants reported that many of the decisions surrounding finances are taken informally and covertly for political reasons, such as by leveraging influence of personal networks rather than presenting a justification based on economics or health rights. In addition, frequent changes of Ministers of Health lead to inconsistencies in following through with decisions already taken.

> *"I always slap the table to speak out. I do not have difficulties to express myself and to negotiate, but there are some aspects we have to accept such as the hierarchy. Clearly, it is always the minister who can speak out at the finance department."* (Government, Madagascar)

> *"I think we had really frequent change in ministers in the last 5 years. We've had five (5) different ministers so everything is personal inside the government; who is strong, who can influence… but for health, it's been a lot of ups and downs and struggling. We've had strong people and we've had medium. I think we had 3 or 4 ministers of health… Yes, I think it is more of politics that [is a] weakness. So, depending on who your friend is or where your friend is heading, I believe most of these decisions are made behind closed doors. And the things that happen on tables like this are just for formalities."* (Development Partner, Malawi)

> *"Immunization division, in many countries is not even a division, it is just a service and then you have many layers for decision making. So, there was a decision at the EPI management meeting, I think two, three years ago that there was going to be some sort of reviews in countries to push this agenda that the EPI managers should be given a better visibility in terms of organogram. I don't think it went out but I know in many countries it is a problem and that is why the prioritization question doesn't worry because they know what they have and what they need but that idea doesn't make it up there. It gets defeated along the line."* (Development Partner, Zimbabwe)

External actor politics

Participants considered that even development partners who did not directly support the procurement of health commodities wielded considerable influence on government financing decisions. The success of development partners' engagement with national stakeholders was identified as dependent on the pro-activeness and networking skills of the individual incountry official as well as their ability to balance the priorities of the donor country with those of the recipient government.

Where there were active donor coordination platforms or a pooled fund, government financing of health commodities had a place on the agenda even if government had not made the decision to finance. In Comoros, active engagement with government supported by Gavi and UNICEF culminated in government financing 50% of traditional vaccines.

> *"…So, till 2018,…, Gavi [was paying fully] for new vaccines. And for traditional [traditional] vaccines, UNICEF was paying….100% and the government was only paying for its share of new vaccines, co-financing with Gavi…things have changed since last year as the government has now started to pay and last year, the government paid for 50% of cost of the traditional vaccines in 2019."* (Development Partner, Comoros)

> *"They're dependent on us. But at the same time, are we in a position to really push for $250 000 of vitamin A and $250 000 of deworming per year when they still need to invest so much in essential medicines and vaccines? Do we really want to shift their attention from essential life-saving stuff to vitamin A which prevents mortality at some point but is not a direct effect on mortality? And if nutrition would push for something, we would really like them to invest for the severely malnourished ones instead of the vitamin A for example. All of this is essential and should be funded by government in the ideal situation, but they don't have the money. We also need to be very realistic about that. Where would they find the money? Do they have the fiscal space to do that? Considering all the priorities like maternal mortality, do you want them to invest in that or in vitamin A?"* (Development Partner, Ethiopia)

Contextual factors

Participants identified numerous barriers to domestic health commodity financing, including a country's poor economic performance (e.g. low rate of economic growth, which limited government revenues), health sector corruption, other competing needs and inefficient bureaucracy coupled with frequent changes in health ministers. Corruption could be manifested in various forms, from theft to misuse or misappropriation of funds by public institutions and officials. In Malawi for instance, the 'cashgate scandal' led to development partners creating the pooled fund and managing this through private commercial banks rather than through the MOH. In Comoros, Gavi, the Vaccine Alliance was requiring public officials to repay misappropriated funds.

> *"Similarly, for our country, economically we just struggle. Because we have been dependent on tobacco for many years. Now everybody is against tobacco. We're trying to find alternatives to tobacco. We have tried many things, but we still have struggled in that respect."* (Government, Malawi)

> *"Well, let me talk for immunization programmes specifically. There had been some issue with the last programme and there were even some expenses that after the audit by Gavi that were rated as ineligible and that the government is currently reimbursing Gavi."* (Development Partner, Comoros)

Three main factors were identified as having the potential to facilitate government financing of traditional vaccines and VAS: financial and legal reforms, social and political participation of non-state actors, and trust in government systems. First, in four of the countries (Burundi, Comoros, Madagascar and Zimbabwe), emerging reforms to strengthen the visibility of health commodity financing or establish a legal basis for the government's commitment seemed encouraging for financial sustainability of health commodities.

Examples of these reforms include having a specific line item in the national budget in Burundi and passing of a law that provides a broad framework for the financing of immunization in Madagascar. In Comoros, after a lengthy period of inaction, economic reforms have been initiated to improve the fiscal space, and are expected to provide an environment for scaling-up financing for health commodities. Despite the economic challenges in Zimbabwe, the government recently made efforts to contribute to financing of health commodities. For instance, at the time of the interviews, the Government had committed to contributing to the purchase of traditional vaccines the following year. Secondly, the social and political climate in some of the countries encouraged active participation of the media, civil society organizations and the private sector as advocates, with these stakeholders identified as key facilitators of financing traditional vaccines and VAS. Thirdly, in Ethiopia, stakeholders identified the health system as having relatively less corruption compared to other countries, and trust in the governance system is a potential facilitator of increasing financing for traditional vaccines and VAS.

> *"The funding of the vaccine is part of the legislature, and there has been a law of vaccination in 2017… the promulgation text is not yet underway. I am going to relaunch it and look for ways to have it applied."* (Government, Madagascar)

> *"And I must say, I find quite nice to be here; you can do business with this people. If you make sense, you have a story, you can do it… [Elsewhere], we agree [on things] but nothing happens. Here things happen but you may not agree on everything. And it just seems they are rather business-like. I don't see a lot of, in the health sector, I don't see a lot of corruption."* (Development Partner, Ethiopia)

Discussion

This is to our knowledge, this is the first political economy study assessing financing of health commodities in LMICs. Our study findings on vaccines and VAS can be used for reflecting on the financial sustainability of other health commodities primarily funded by donors in LMICs, such as antiretrovirals and antimalarial medicines. The topic is especially relevant due to forthcoming transitions away from donor aid as countries grow economically (Yamey et al., 2018). PEPFAR's Sustainable Financing Initiative aimed to increase domestic resources through improved public financial management and effective advocacy (USAID, 2023). We found that countries are aware of their role in financing traditional vaccines, but at the time of the study only Comoros and Madagascar had made tangible efforts to increase this financing. However, following our study, Zimbabwe started to finance traditional vaccines from government sources. During 2022, all traditional vaccines were financed via the MOH budget in Zimbabwe.

The discussion surrounding government financing of VAS is considerably less developed than for vaccines. A plausible reason could be that there have been few systematic efforts to promote co-financing or self-financing of VAS. However, this is starting to change particularly in South and Southeast Asia, where countries have started to take responsibility for VAS financing. Concerted awareness-raising by development partners and civil society is needed of the importance and relatively low costs of VAS to lay the foundation for transition from donor to government financing. The high level of malnutrition in some

countries is alarming and should be used to raise awareness of the need for dedicated government support to the VAS budget. It is important that all stakeholders, especially partners, commit the government to initiate and review current funding flows to increase the government contribution, even if it means introducing some form of cofinancing. The lack of government funding, and in some cases limited awareness and attention to VAS financing, may be in part a reflection of the reliability and consistency of the Government of Canada-supported in-kind donation programme, which may have reduced attention to longer-term sustainability risks. The lack of action on financing VAS could also be due to limited understanding of the negative health effects of vitamin A deficiency compared to vaccine-preventable diseases.

Economic challenges, political instability, security challenges, health sector inefficiency and corruption were identified as impeding increased government financing for health commodities. For instance, in Ethiopia, the security challenges were identified as engaging the attention of political officials more than health. In Madagascar, Malawi and Comoros, both government and development partners identified corruption as leading to financial mismanagement and causing mistrust between government and development partners. This finding is consistent with previous findings that the Malawi cashgate scandal led to mistrust for government management of finances, significantly influencing the relationship with development partners (Adhikari et al., 2019). In contrast, stakeholders in Ethiopia emphasized the low or non-existent health sector corruption as commendable, consistent with previous findings (Teshome and Hoebink, 2018).

Pro-activeness of technical leadership within the MOH and an ability to engage with the MOF in the budget process play a central role in coordinating donor support, and aligning these with country priorities was found to be crucial. However, limited capacity of MOH technical leadership to engage the MOF was identified in all the countries. Some stakeholders believed that the MOH relies on an assurance of support from donors. Such donor reliance has been shown to impede sustainability and transition from development assistance to government financing for health in Liberia (Kollie et al., 2021), Nigeria, Romania (Flanagan et al., 2018) and Uganda (Wilhelm, 2019).

Respondents suggested that there was a lack of country leadership for aligning donor support towards domestic priorities, which is needed for successful policy implementation. Pallas et al. (2015) identified an example of this in Ghana during the implementation of the sector-wide approach (SWAP) where ‘catalytic leaders’ in the MOH successfully worked with donors to align support with government priorities. Similarly, Ethiopia has been identified as showing leadership in aid coordination (Teshome and Hoebink, 2018). Novignon *et al.* studied the political economy of establishing the Ghana National Health Insurance Scheme and concluded that continuous political interest is important to ensure sustainability of health financing reforms (Novignon et al., 2021).

Public financial management practices tend to affect the implementation of decisions regarding health commodity financing. A survey of public health practices and procedures in 15 African countries highlighted budget execution as a challenge, resulting from both operational issues within the MOH and timing of release of funds by the MOF (CABRI,

2020). Further, the phenomenon of many donors providing direct support to the MOH or its agencies without passing through the regular financial management system leads to a misalignment with government priorities and tension between MOH and MOF (Griffiths et al., 2020). A political economy study on subnational health management in Kenya, Malawi and Uganda concluded that while development partners provide stop-gap funding for unfunded priorities, the lack of coordination between development partners and the lack of transparency around their budgets and timelines mean that their support is seen as unreliable, less aligned to plans and unlikely to sustain programmes (Rodríguez et al., 2023).

Drake *et al.* identified six key issues that lead to ineffectiveness of health aid: volatility, fragmentation, the undermining of country autonomy, ineffective prioritization, lack of transition planning and crowding out of domestic finances (Drake et al., 2023). All these concerns were apparent in our study. We found a lack of a long-term strategy for financing health commodities. Thus, government financing of commodities like VAS seems to be absent from discussions. Even where there is a clear strategy for financing newer vaccines, traditional vaccines seemed to be missing due in part to the expectation that donors would step in to finance these.

The bureaucratic nature of governance in the study countries as well as the hierarchical nature within the MOH relating to chains of command influenced the speed, flow and momentum of officials within the MOH. Bureaucracy has been shown to impede problem solving and encourage politicking and investing time in ways to circumvent the process (Segel, 2017). For instance, in all six countries, there are several chains of command above the EPI and nutrition managers; the degree to which higher-level officials understand and communicate issues relating to traditional vaccines and VAS to MOF and other government officials influences the priority placed on health commodities. Sometimes, the bureaucracy creates power dynamics, which could negatively or positively affect the outcome of government decisions relating to financing. It should be noted, however, that such bureaucratic processes and hierarchical structures are a feature of MOHs and the civil service in many countries, including those that fully finance traditional vaccines and VAS from domestic revenues (e.g. high-income and middle-income countries); therefore, this barrier may be less relevant than other factors (e.g. limited fiscal space due to low economic growth, perception of donor support for health commodities). Nevertheless, when coupled with the power that plays out in budget processes, bureaucratic politics has a role in shaping domestic health commodity financing (Rodríguez et al., 2023).

Based on our findings, we strongly support the marginal aid approach (Drake et al., 2023). Drake *et al.* argue that donor aid should not be used to finance the most cost-effective services, nor to support services that reflect the preference of the donor. Instead, domestic financing should support highest priority services while aid should be used to support services that are just out of reach of a well-prioritized and appropriately funded national MOH. With the marginal aid approach the volatility of donor support would be avoided, protecting the core of the national health benefits package, which includes traditional vaccines and VAS. Moreover, as argued by Drake et al. (2023), by focusing on services at the margin, health aid would be far less likely to crowd out domestic financing and a clear and predictable framework for transition planning and an aid exit strategy could be

formulated without jeopardizing core services. The agenda of our respective institutions is concerned with promoting sustainable financing of vaccines. We do not have any financial interests in the topic.

Funding

The study was funded by United States Centers for Disease Control and Prevention as part of CDC/UNICEF Collaborative Agreement (grant number: GH002169).

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Key messages

- There is a lack of government long-term strategy for financing health commodities. Political economy plays a role in understanding the dynamics of financing traditional vaccines and vitamin A supplementation in low- and middle-income countries. While countries are aware of their responsibility in financing traditional vaccines, only a few have made tangible efforts to increase financing.
- There is little discussion and little to no effort by countries to ensure domestic financing of vitamin A supplements. This may in part be due to few systemic efforts to promote co-financing or expectations that donors will continue to support.
- The bureaucratic nature of governance and the sometimes hierarchical nature within the Ministries of Health tend to influence the speed, flow and momentum of officials to determine health priorities.
- Better country-level coordination of partners contributes to placing government's role in financing health commodities on the agenda.

Box 1.

Organizational arrangements for pooled funding for health services and commodities: examples from study countries tag=Sect

Malawi

Health Services Joint Fund (HSJF)

The Health Services Joint Fund (HSJF) was established by the Government of Malawi and development partners to support the implementation of Malawi's Health System Strategic Plans 2011–2016 and 2017–2022. The HSJF is intended to channel pooled development partner funds to address priority health service constraints. The fund should be aligned with government systems while maintaining a parallel funds flow with strong fiduciary controls. The Royal Norweigan Embassy, the Foreign, Commonwealth & Development Office of the United Kingdom and KfW, the German development bank, are the three donors supporting Malawi's Ministry of Health though the HSJF.

Zimbabwe

Health Development Fund

The macroeconomic challenges (hyperinflation) faced between 2007 and 2009 affected the country's ability to purchase essential health commodities due to inadequate foreign-exchange reserves. Therefore, established in 2012, the Health Transition Fund (HTF) was a more structured approach to providing financial support to the health sector, including the purchase of health commodities, such as traditional vaccines and vitamin A supplements (VAS). However, this was meant to be a transition fund, with an expected end date of 2016 when the country would have been in a position to finance from domestic resources. As the HTF period expired, the country was still unable to finance health commodities, necessitating the formation of the Health Development Fund (HDF) in 2016, expected to last till 2020.

Financing of traditional vaccines and VAS is done largely through the HDF Pooled Fund with contributions from development partners. Contributors to the HDF include development partners operating in the country, with the four key contributors being the Foreign, Commonwealth & Development Office of the United Kingdom, European Union (EU), Swedish International Development Agency (SIDA) and Irish Aid. Funds are also received from Gavi, the Vaccine Alliance, USAID, Government of Norway as well as the Chinese and Japanese governments.

The HDF is governed by a Steering Committee which oversees the implementation of programmes supported by HDF funds. While UNICEF Country Office acts as the Manager of the fund, the Steering Committee is chaired by the Permanent Secretary of the Ministry of Health and Childcare. The country's health needs set the priority for what decisions must be made and how much funding needs to be allocated to them. The Zimbabwean Government currently makes no contributions to the HDF but co-finances the purchase of newer vaccines through GAVI co-financing.

Ethiopia

Sustainable Development Goals Pooled Fund

The financing landscape for health commodities in Ethiopia comprises a complex mix of resources from the Government of Ethiopia, individual development partners and the Sustainable Development Goals Pooled Fund (SDG PF). Resources from these sources are used to purchase health commodities, including traditional vaccines and vitamin A supplements.

Established in July 2015, the SDG PF is a common platform where donors pool their resources to support health service delivery.

The SDG PF has clear guidelines mirroring the national health goals and priorities of Ethiopia and was designed to be used to fill the gap between required and actual resources. Contributors to the fund include Foreign, Commonwealth & Development Office of the United Kingdom, World Bank, UNICEF, Gavi, World Health Organization, Irish Aid, Government of Spain, Government of Italy, European Union and the Royal Kingdom of The Netherlands. Contributions are made annually and vary among donors.

The SDG PF is organized and governed by a Steering Committee, which has the Government representative (Minister of Health) and rotational donor representative as co-chairs. UNICEF Country Office acts as the Administrator of the Fund.

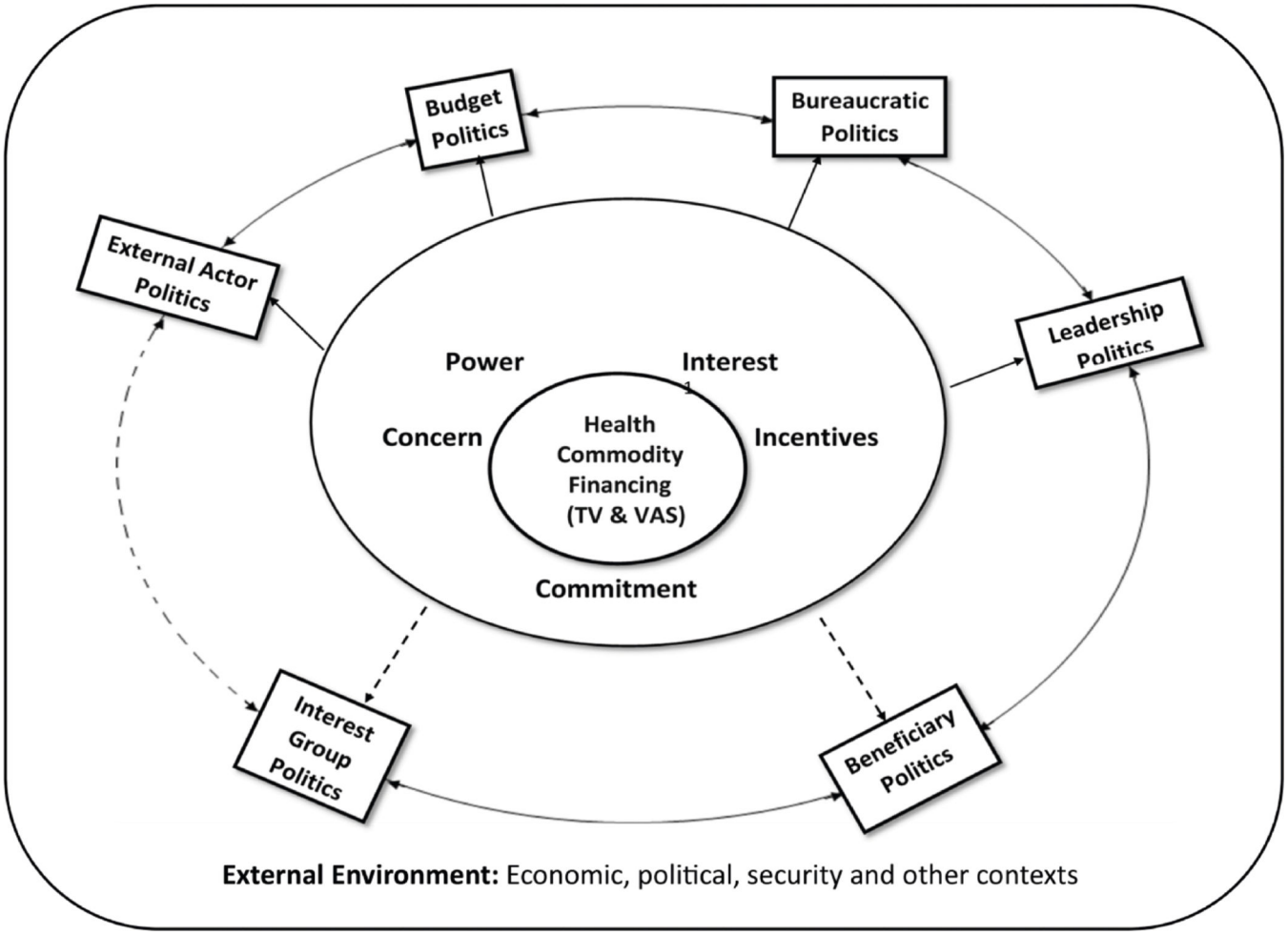

Figure 1.

Framework for political economy of health commodity financing

Source: Authors' construct based on concepts from Campos and Reich (2019) and Sparkes et al. (2019). TV = Traditional vaccines.

Table 1.

Demographic and socioeconomic profile of study countries

Country	Population (thousands) 2022[a]	Under 5 years mortality (per 1000 live births) 2022[a]	GNI per capita (US$) 2021	Total health expenditure as % of GDP 2020[b]	Government expenditure on health as % of current health expenditure 2020[b]
Burundi	12,716	51	220	7	37
Comoros	829	58	1,580	5	14
Ethiopia	121,823	44	940	3	28
Madagascar	29,260	45	490	4	37
Malawi	20,146	38	620	5	36
Zimbabwe	16,153	53	1,530	3	22

[a] https://population.un.org/wpp/download/standard/population/; https://data.worldbank.org/indicator/NY.GNP.PCAP.CD

[b] WHO Global Expenditure Database, https://apps.who.int/nha/database/ViewData/Indicators/en

Table 2.

Traditional vaccine coverage rates for study countries (%, 2021)

Country	BCG birth dose	OPV third dose	Measles first dose
Burundi	95	94	90
Comoros	96	89	82
Ethiopia	68	68	54
Madagascar	52	52	39
Malawi	89	89	90
Zimbabwe	88	86	85

Source: WHO/UNICEF national immunization coverage estimates, 2021 revision. https://data.unicef.org/topic/child-health/immunization/

BCG = Bacillus Calmette-Guérin;

OPV = oral poliovirus vaccine.

Table 3.

Stakeholders interviewed in each study country by actor category, agency and position title

			Study country (X = 1 individual interviewed)					
Actor Category	**Agency**	**Position title**	**Burundi**	**Comoros**	**Ethiopia**	**Malawi**	**Madagascar**	**Zimbabwe**
Government	Office of the President/Prime Minister	Presidential Committee			X			
	Parliament	Committee in Health				X	X	
	Ministry of Health	Permanent Secretary					X	X
		EPI Manager	X	X	X	X	X	X
		EPI Finance Officer					X	
		Director Nutrition	X	X	X	X	X	X
		Director Budget						X
		rector of Policy				X		
	Ministry of Finance	Head of Social Sector		X	X		X	
		Director/Head of Budget	X	X			X	X
Development partners	UNICEF	Representative/Deputy Representative	X	X		X	X	X
		Health team	X	X	X	X	X	X
		Social policy team	X	X	X	X	X	X
		Nutrition team	X	X	X	X	X	X
		Supplies team			X			
	JICA	Health desk					X	
	KOICA	Health desk					X	
	EU	Health desk						X
	Irish Aid	Health desk						X
	AFD (Agence Française de Développement)			X				
	French Embassy	Health desk		X				
	WHO		X					X
	DFID	Health desk				X	X	X
	World Bank	Health desk	X		X		X	
	IMF	Debt service desk		X				
	Gavi	Health desk	X		X			X
	Embassy of Norway	Health desk				X		

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			Study country (X = 1 individual interviewed)					
Actor Category	**Agency**	**Position title**	**Burundi**	**Comoros**	**Ethiopia**	**Malawi**	**Madagascar**	**Zimbabwe**
	Embassy of The Netherlands	Health desk			X			
	Pooled fund	Coordinator						X
International NGOs	Nutrition International				X			
	Canada Global Affairs[a]							
Civil Society	Health Equity Network (HEN)	Director/Head				X		
	HINA						X	
	Clinton Health Access Initiative (CHAI)							X
	Project d'Appui au Secteur de la Sante aux Comoros (PASCO)			X				

[a]General discussion across countries.

IMF = International Monetary Fund.

Table 4.

Summary of themes identified from stakeholder interviews by political economy dimension and country

Political economy dimension	Theme and sub-themes	Burundi	Comoros	Ethiopia	Madagascar	Malawi	Zimbabwe
	Status of financing traditional vaccines and vitamin a supplementation (VAS)						
Leadership politics	Government contribution						
	Government plus development partner	√	√	√	√	√	
External actor politics	contribution						
	Development partner-only contribution						√
Budget politics	*Government*						
Leadership politics	Finance/Immunization law	√			√		
	Current contribution to financing	√	√	√	√	√	
Budget politics	*Development partner*						
External actor politics	Priorities of development partner home country			√	√	√	
	Political health and economic environment of recipient country	√	√				√
	Priorities of recipient country	√		√			
	Power and politics of health commodity financing						
	Individual development partner power						
External actor politics	Ability of individual development partners to influence government	√	√	√	√	√	√
	Pro-activeness and network of individual		√	√	√	√	√
	development partner officials						
	Consolidated development partner power						
External actor politics	Presence of pool fund mechanism			√		√	√
	Extent of engagement among development partners	√	√	√		√	√
	Presence of active donor coordination platform	√	√	√	√	√	√
	Power within government						
Budget politics	Bureaucratic governance system	√	√	√	√	√	√
Leadership politics	Hierarchical structure of MOH	√	√	√	√	√	√
	Bureaucratic budget process	√	√	√	√	√	√
Bureaucratic politics	Low MOH capacity to engage MOF	√			√		√
	Perception of ready donor support to MOH		√	√	√	√	√
	MOH controls resources received directly from donors, outside control of MOF	√			√	√	

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Political economy dimension	Theme and sub-themes	Burundi	Comoros	Ethiopia	Madagascar	Malawi	Zimbabwe
	Pro-activeness and preferences of individual MOH officials		√	√		√	√
	Contextual factors						
	Facilitators						
Budget politics	Emerging reforms	√	√		√		√
Leadership politics	Opportunity for stronger advocacy (civil society and media)	√				√	
Bureaucratic politics	Attention to citizen voice				√		
	Less health sector corruption			√			
	Opportunity for private sector involvement	√					
	Improved economy (increased government revenue)		√				
	Immunization law/budget line item				√		
	Evidence of past commitment						√
	Barriers						
Budget politics	Economic challenges	√			√	√	√
Leadership politics	Political instability/sensitivity	√		√			√
	Security challenges	√		√			
Bureaucratic politics	Health sector inefficiency/corruption		√		√	√	
	Frequent change in ministers					√	
	Bureaucracy	√	√	√	√	√	√
	Priority of other issues above health			√	√		