Concept Note:

Cambridge Policy Boot Camp (CPBC) on Supporting the National Health Insurance Scheme in Ghana, the Role of Promoting Healthy Diets

Partnership between EAT and the University of Cambridge
Funded by Rockefeller Foundation

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UNIVERSITY OF CAMBRIDGE
Centre for Resilience and Sustainable Development

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Key Question

How can we improve the financial viability of the National Health Insurance Scheme to provide wider coverage to Ghanaians, and prevent diseases by implementing healthy diets by 2025?

National Anchor Agency

Ministry of Health (MOH), Ghana

Local Focal Point

Ministry of Health (MOH), Ghana

Ultimate beneficiary

Ministry of Health (MOH), Ghana

Concept note authorship

This concept note was prepared jointly by the Centre for Resilience and Sustainable Development, the University of Cambridge and the Ministry of Health (MOH), GHANA.

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Executive Summary

The Government of Ghana has set itself the target of achieving Universal Health Coverage by 2030. To achieve this, the Government recognises that scaling up interventions to incentivise the uptake of healthy diets will be an important preventative measure, as this will reduce nutrition-related non-communicable diseases. The National Health Insurance Scheme (NHIS) is currently facing a financing crisis as it relies on VAT collection for 70% of its revenues, and this is paid in only 30% of the economic activity. In addition, healthcare demand is rapidly outstripping revenue growth, and an exemption policy for paying NHIS premiums is poorly targeted. The funding shortfall is exacerbated by a growing debt crisis and declining budget transfers made to the Health Service. Community Health Planning Services - a community-based facility - are limited to the rural areas and cover only 44% of the population. In addition, food and dietary culture has shifted significantly with the rise of per capita income and economic liberalisation in the past couple of decades. There has been a very low intake of fruits and vegetables, combined with high transportation costs, poor storage facilities and a rise in imported food. There is significant food inflation (currently at 38%) making any behavioural shifting or nudging strategy related to healthy dietary shifts ineffective.

Within the complexity, uncertainty and inefficiencies, the Ministry of Health has partnered with the University of Cambridge and the EAT Foundation to help meet the target set by the Government of Ghana. This project is a part of a larger action-research programme funded by the Rockefeller Foundation. This concept note has been joined owned, researched and developed by the Centre for Resilience and Sustainable Development at the University of Cambridge and the Ministry of Health, Ghana, identified as the National Anchor Agency and the Ultimate Beneficiary of the research outcome. There is a strong political-economic will in systems level transformation.

A proven methodology will be used, based on the Cambridge Policy Boot Camp (CPBC), developed at the University of Cambridge, in which a wide range of stakeholders will explore potential responses to the challenges in the Ghana health/food system using system-based tools to answer the question:

“How to improve the financial viability of the National Health Insurance Scheme to provide wider coverage to Ghanaians, and prevent diseases by implementing healthy diets by 2025?”

With a group of experts using the CPBC methodology, the work will focus on identifying ways of improving the financial viability of the NHIS in order to provide wider coverage to Ghanaians and to prevent diseases by implementing healthy diets by 2025. The CPBC methodology will allow participants to engage in an intensive exploration of this challenge through a multi-layered system lens, guided and supported by expert facilitators and mentors with years of substantive expertise. The Ministry of Health, Ghana will take part and is committed to taking forward the outcomes of the Cambridge Policy Boot Camp. Following an analysis of the workshop outcomes, a report will be presented.

Useful Data

Below is an overview of the key background data on Ghana's socio-economic status (Table 1), and the key challenges facing the NHIS (Table 2).

Table 1: Ghana's Socio-Economic Characteristics

International Development Benchmarks: Ghana is internationally recognised as making significant progress on human development and economic indicators. Between 1990 and 2021 Ghana increased its life expectancy from 55.6 years to 63.8 years, more than doubled income per capita, increased years of schooling from 6.75 to 12 years and greatly increased gender equity performance (UNDP, 2022a). Many challenges remain: 23% percent of the population live below the nationally defined poverty line, (UNDP, 2022b) only 23% of households have drinking water on the premises -dropping to 6% in rural areas - and improvements in infrastructure, health and income are unevenly distributed between regions.(UNDP, 2022a)
Population Indicators: Current Ghanaian population is estimated at 30.8 million (2021) (GSS[1], 2021). Seventy-two percent of the population are under 35 years of age, predominantly 15-35) with slightly more females (50.7%)(GSS, 2021). The majority (61%) of 15-35 year olds live in urban areas. Population is increasing at around 2.1% per annum with the total fertility rate estimated at 3.8 children per woman (World Bank, 2022).
Urban/Rural Divide: Ghana is rapidly urbanising - 56.7% of its population now reside in urban areas with Accra being the fastest growing and largest. In urban areas, 22% of young people are not in employment, education or training while 52.1% of urbanites are in vulnerable employment situations - most of them women (GSS, 2021). The Ghana Statistical Service (GSS) reports that 42% of the urban population is considered food insecure, 21% live in overcrowded households **and 24% do not have access to a healthcare facility.** Another study from 2017 found that food insecure households in Accra could be as high as 70% (Tuholske et al 2020).
The Economy: Ghana became a low-middle income country in 2011. COVID halved Ghana's growth from 7% to 3.3% - led by a slow down in the agriculture and service sectors (World Bank, 2022), Key economic challenges include a sovereign debt of $54billion - or 78% of GDP (Ministry of Finance, 2022) - with debt servicing consuming 70% of government revenue (Sarkodie, 2022) food inflation currently at 34%, (GSS, 2022b) and a currency devaluation of 24% (2022). The Government is currently in discussion with the IMF on a response program (World Bank, 2022). Currently, the Government and the Bank of Ghana (BoG) have sought to dampen inflationary expectations by, cutting expenditures, and raising interest rates to 22% (World Bank, 2022). The informal economy dominates the economy - comprising 91% of SMEs and contributing around 70% of GDP and 84% of jobs. About 50% of urban workers and 80% of rural workers are considered to be in vulnerable employment (GSS, 2022b) The informal economy is both a survival strategy and a source of livelihood for poorer citizens (Turkson et al, 2022). Smartphone ownership, particularly amongst urban young people, is around 73.1% - but with significant regional variation. Ownership of other IT hardware such as laptops and i-pads remains low (GSS, 2022a).
Governance and Transparency: Corruption and lack of transparency continue to lead to significant public revenue loss (Yaw Asomah, 2022). Ghana currently scores 43/100 (100=clean, 0=very corrupt) by Transparency International (2022) while a 2022 report found that 26.7% of the adult population paid, on average, 5 bribes to a public official in 2021 (UNODC and GSS, 2022) Bribe taking in the public health care system was relatively low - although there are regional variations. Ghana is ranked one of the top three countries in Africa for freedom of speech, press freedom and a strong broadcast media - with radio having the greatest reach (Rahman, 2018). A range of domestic legislation and institutional frameworks are in place to address corruption (Rahman, 2018). including, for example, regularly publishing government debt information on the Ministry of Finance website as required by regulation.

[1] GSS stands for "Ghana Statistical Service"

Table 2: Key Challenges in the National Health Insurance System

The NHIS funding model is stable, but no longer fit for purpose. Around 74% of NHIS funding comes from VAT funds, which is sourced directly from the 'formal' or registered portion of the economy. However, about 70% of Ghana's GDP derives from the informal sector – and therefore does not contribute to NHIS funding through VAT revenues**.** This means that a large proportion of economic activity does not support the NHIS. Moreover, the boundaries between formal and informal are fluid. During difficult economic times, such as now, there is a strong incentive for formal economic agents to de-register and move into the informal sector - exacerbating the problem.
Demand rapidly outstripping revenue growth. Growth of claims has outpaced growth of NHIS revenue – requiring a draw down of capital funds. This is a result of increase in utilisation, increasing the number of individuals covered and increases in cost per claim.
Premium exemption policy may be poorly targeted. Although exemptions are designed to ensure equitable access to NHIS funds, only 1.2% of total premium exemptions are directed towards individuals who are classified as poor or vulnerable. Further, there is evidence that enrollment in the NHIS is positively related to wealth, education status and profession - with agricultural workers least likely to be enrolled. The majority of benefits from premium exemptions flow to individuals in higher income groups. Even though virtually the NHIS schemes directly target or subsidize the most vulnerable groups, literature reviews published on Ghana suggested that better-off households have on average almost twice the odds of enrolling in health insurance compared to poorest households. For example, the Ghana health insurance scheme stipulates premium exemptions for indigents, the elderly above 70, pregnant women and children, and yet the enrolment is very low from indigents, elderly, women and children.
NHIS is called on to support a health system that needs extensive capital investment and upgrading of services. Service availability and quality of health care is considered below expectations, shown through insufficient and inappropriate staff mix at primary health care level, a lack of basic infrastructure and equipment in over 50% of facilities and an inefficient procurement. Examples of system problems include 49% of CHPS zones appropriate facilities and transport, while only 34% have the full range of equipment.
NHIS reimbursement model is slow and has perverse incentives. Claim expenditure is rising rapidly. The reimbursement scheme used by the NHIS is complicated and includes the use of a fee for service basis - which encourage over servicing.

Background

In this section we introduce and summarise the challenges facing the Ghanaian health system and the key issues to be discussed in the Cambridge Policy Boot Camp (CBPC).

The Ghanaian Government has set itself the targets of achieving Universal Health Coverage (UHC) by 2030. The UHC ambition is shaped by three pillars - 1) access to basic health care, irrespective of location, socio-cultural group, income status, 2) ensuring a high quality of health service and 3) managing financial risk to ensure that accessing health is not limited by finances.

To achieve its UHC targets, within the current context of Ghana's health system and the National Health Insurance Scheme (NHIS) (Figure 1, Appendix Table A1), the Government of Ghana recognises that scaling up interventions to incentivise the uptake of healthy diets will be an

important preventative measure needed to address nutrition-related non-communicable diseases (NR-NCDs) by 2025. These preventative measures will need paying for, either through the (NHIS) or by some other mechanism. However, currently:

- The NHIS funding model is stable (Wang et al 2017), but no longer fit for purpose as it relies on VAT for 70% of its revenues, which is only paid by 30% of the economy.
    - Premium payments and social security taxes (SSNIT) make up around 25% of NHIS revenue).
- Demand is rapidly outstripping revenue growth and the exemption policy for paying NHIS premiums is poorly targeted. For example only 1.2% of total premium exemptions are directed towards individuals who are classified as poor or vulnerable (Kwarteng et al, 2020).
- NHIS is called on to support a health system that needs extensive capital investment and upgrading of services but the national budget crisis and budget transfers to the health service are already insufficient to cover operational costs (Ministry of Health, 2019).
- Community Health Planning Services (CHPS) - a community based facility - provides a well developed infrastructure for primary health care, targeted at poorer communities, but are limited to the rural areas covering only 44% of the population.

Expanding the scope of services provided under the NHIS, as well as expanding population coverage under the UHC ambition requires a re-assessment of the ongoing financial viability of the NHIS - already under significant financial pressure - and the ability of the health insurance system to incorporate additional demands. These two policy objectives are mutually reinforcing - preventative health care will reduce future costs in the NHIS freeing up resources for expanded coverage, while inclusion of preventative health care into NHIS will facilitate wider adoption within it is summarised in Figure 1

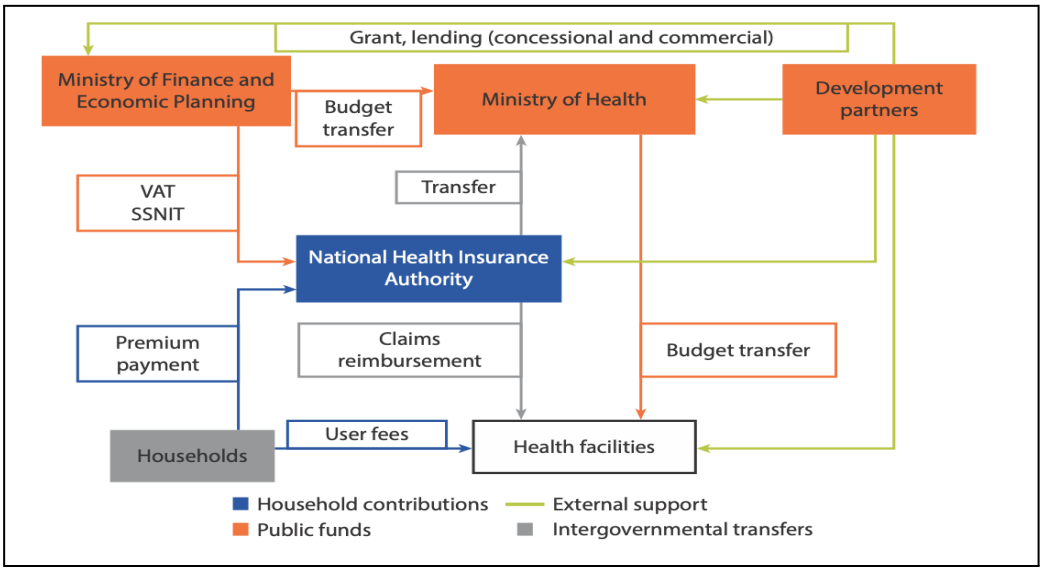

Figure 1: The Structure of the Ghanaian Health System.
Funding for health facilities come from various sources: NHIS for services delivered, directly from the Ministry of Health and from development partners. Source: Wang et al, 2014

The magnitude of the challenges facing the Ghanaian government as it seeks to fulfil its UHC ambitions and incorporate healthy diet interventions into the NHIS is considerable. Although health insurance enrolment is mandatory for all Ghanaians, enrolment nationally is around 68% (GSS, 2021) - and highly variable between regions. Currently, there are no preventative health care provisions within the NHIS, and only 20% of its resources is spent on primary health care - with the majority of the NHIS budget is spent on more expensive curative interventions. Coverage has traditionally focussed on either formal sector workers with subsidies for poorer citizens. Inclusion in

NHIS coverage by Ghana's informal sector workforce - roughly 80% of the working population - is relatively patchy, meaning that a sizeable 'missing middle' of Ghana's population have no access to either primary health care and/or health insurance.

Ghana is currently undergoing a 'nutrition transition' and faces the double burden of both undernutrition and overnutrition in the form of non-communicable diet related diseases, such as hypertension. Recent studies have begun to scope out the scale and extent of the challenge in incorporating nutrition as a preventative health strategy in the NHIS. One study has highlighted the significant deficiency between spending - and by assumption consumption - on fruit and vegetables and an 'ideal' local health diet (National Development Planning Commission, 2022b). Diets are also lacking in vitamin A, iron, zinc and protein, depending on the region (Aberman et al, 2022). It is also noticeable that a relatively large proportion of the budget for the average and low income household are spent on the 'sugary/food away from home' category (Figure 2). It is unclear what this constitutes - for example do middle and lower income households spend a significant proportion of food budget on eating away from home or is this spent on alcohol, sweet/salty snacks? Further, a 2020 review of Ghana's food system evaluated government action to improve food healthiness against 43 international best practices. Three-quarters of all best practice healthy food indicators were rated at 'low' or 'very little' implementation, with restricting the marketing of best milk substitute as the only indicator scoring 'very high' (Laar et al, 2020).

Ghana has been active in international nutrition and health fora and signed onto two major food and nutrition related agreements. At the 2021 UN Food Summit, Ghana made a number of food system transformation commitments to achieve, by 2030, explicit targets, for improving climate resilience in agriculture, improvements in nutrition guidelines, training and nutrition data and strengthening the integration of essential nutrition actions into the primary healthcare system (Government of Ghana, 2021). Many of these commitments at the UN Food Summit re-iterated previous commitments made under the *Global Nutrition for Growth Compact* from 2013. A key difference is that the earlier agreement included additional commitments to ensure infants/young children receive minimal acceptable diets and commitments to policy to eliminate trans-fatty acids and the marketing of highly processed foods for children (National Development Planning Commission, 2021a).

Ghana has a number of existing policies and programs that could, through an extension in their coverage or mandate, provide the basis for action on nutrition and preventative health. Key programs here include:

- National Health Policy: Ensuring Health Lives for All
- Universal Health Care Roadmap 2020-2030
- Community Health Centres and Outreach Programs
- Increasing use of e-health and mobile technologies
- Inauguration of Traditional Medicine Council.
- Regenerative Health and Nutrition (RHN) Programme

These are discussed more extensively in the body of this Concept Note.

Ghana is internationally recognised as making significant gains in reducing poverty, improving living standards and life expectancy (Figure 2, Table 1) of its citizens (Human Development Index, 2021) and became a middle income country in 2011. However, the impact of the COVID pandemic has created some very challenging economic circumstances. The ambition for UHC and healthy diet intervention is set against rising inflation and interest rates and a sovereign debt level of about 78% of GDP (Acheampong, 2022) - meaning that there is almost no capacity in the public budget for an expansion in health spending. Further, Ghana's access to developing assistance funds is gradually winding down over time as it strengthens its position as a middle income country (Government of Ghana, 2019).

Public finances for the NHIS is further weakened by its reliance on VAT for 70% of its revenue which is derived from 30% of its formal economy. Therefore, the major part of the Ghanaian economy is not structurally linked to generating stable, long term revenues for the NHIS. Revenue from this sector is received on a voluntary basis through premium payments.

The Objectives of Cambridge Policy Boot Camp

Ghana has the great advantage of having a robust policy debate over reform options for its health and food systems, with many academic and policy papers being drafted both within government agencies and by health and food system experts and researchers. In short, there is no lack of ideas about the future of health and nutrition in Ghana. What is missing is an interdisciplinary systems based analysis that articulates policy concepts which can activate new resources for healthy diet interventions and one which identifies links, and feedbacks, between the multitude of health and nutrition related programs, policies and ideas that already exist or are under development in Ghana - or identify the (hidden) gaps between them.

In this Cambridge Policy Boot Camp (CPBC) we will explore potential responses to the challenges in the Ghana health/food system discussed above using system based tools to answer the question:

"How to improve the financial viability of the National Health Insurance Scheme to provide wider coverage to Ghanaians, and prevent diseases by implementing healthy diets by 2025?"

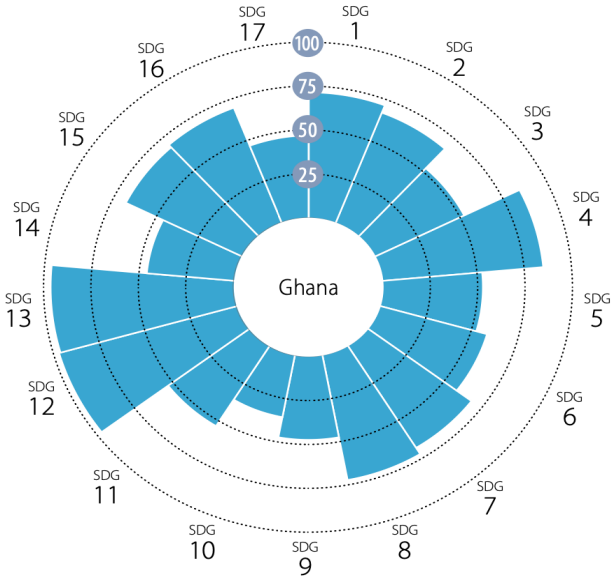

Figure 2: Ghana progress against SDG Goals, 2022
Ghana has made good progress on SDG 13 (climate action) and 12 (Responsible Consumption and Production), moderate progress on SDGs 4 (Quality Education), 7 (Affordable and Clean Energy), 8 (Decent Work and Economic Growth), 15 (Life on Land) and 16 (Peace and Justice). Less progress has been made on the other goals which are: 1(No poverty), 2 (Zero Hunger), 3 (Good Health and Well Being), 5 (Gender Equality), 6 (Clean Water and Sanitation), 9 (Industry, Innovation, Infrastructure), 10 (Reduce Inequality), 11 (Sustainable Cities and Communities, 14 (Life Below Water), 17 (Partnerships to achieve the Goal).
Source: Sachs et al 2022

Here, **financial viability is defined** as the ability of the health system to finance its intended expenditure, ensure solvency and have sufficient financial resources to adapt to changing demands. The WHO argues that financial viability must be considered a constraint, and not be an objective in its own right - which implies active consideration of **tradeoffs around service provision and costs** (Thompson et al, 2009).

Preventative health care in this workshop will adopt The WHO definition of primary prevention which defines it as actions aimed at avoiding the manifestation of a disease including actions to improve the social and economic determinant of health, behavioural change intervention, nutritional and food supplementation and clinical interventions such as immunisation (WHO, 2022).

This workshop has been co-designed and co-convened as a partnership between the Ministry of Health and the University of Cambridge to explore the potential contribution of preventative health care, through healthy diets, to the goal of universal health care and the expansion of coverage under the NHIS. Key outcomes which could be achieved include:

- Identifying institutional mechanisms that will facilitate providing wider health insurance coverage, and provision of health services to urban communities and to Ghana's informal

sector workers - the ‘missing middle’ - who are poorly served by existing arrangements.
- Identifying additional resources to boost the capacity for the NHIS to fund healthly food interventions.
- Reforms of the funding mechanisms to support health care

This Concept Note sets out a non-exhaustive summary of relevant background information that may be useful to participants. Ghana’s health system and action on nutrition is **complex and extensive** - here items were included that were considered as being directly relevant to helping workshop participants address the research question.

Responses

Developing health and nutrition policy and programmatic and supply chain responses to implement Ghana’s ambition for UHC and nutrition based preventative health care in Ghana is already underway - albeit with mixed results. In this section we summarise some of the key responses from the Government and private sector. Responses form the NGO sector are addressed in the next section.

The Ghanaian Government has incorporated health and nutrition objectives into multiple high level national development strategies and policies, with a selection summarised in Table 2. Recent analysis by the International Food Policy Research Institute (IFPRI) (Laar et al, 2020) identified 17 national level policies from the health, nutrition and economic/social/education sectors that were nutrition relevant. Of those identified, 11 policies had explicit nutrition targets, 16 had nutrition targets and 14 had planned nutrition activities. Only 3 policies had explicit budgets dedicated to nutrition outcomes. Overall, the IFPRI concluded that policy coherency is mixed and more work is required to align nutrition context, objectives, indicators, activities, target populations and definitions of nutrition concepts. In addition there is a need for more data disaggregated by gender, geography, and socio-economic status - particularly in developing indicators and data collection.

Existing strategies developed by the Ghanaian government are designed to be multi-sectoral, involve collaboration across government ministries and agencies and include active partnerships with the private sector and NGOs. Some success has been achieved. For example, the private sector has a long history of collaborating with the Ministry of Food and Agriculture on food value chain projects, and with international NGOs in delivering therapeutic feeding programs. A recognised need for tackling childhood and adult obesity has led to the development of a Regenerative Health Initiative to address lifestyle factors.

However, the impression of an exhaustive and comprehensive health and nutrition policy effort is not matched with a corresponding effort in implementation. Overall, implementation is partial has mixed coverage and mixed success. For example, some policies have been in place for a while - for example the Universal Health Care Roadmap 2020-2030 (2019) - but have yet to make concrete reforms. Others have had limited effectiveness. For example, a 2018 Review of the National Nutrition Policy found that while indicators around stunting improved slightly, other nutrition indicators had mixed results from the policy or had worsened during that time (Nwafor, 2018). Overall stakeholders viewed the policy environment, or funding, as not having significantly changed since the Policy launch and therefore, the NPP had not been adequately implemented or been effective.

For policies and programs that are implemented, the group that is the most common target beneficiary in nutrition policies are children and women of reproductive age -and there is limited attention on elderly groups, adolescents and men (Atuobi-Yeboah et al (2021). This is particularly the case for programs and interventions by international NGOs (see below “Opportunities for Action”) who focus their work on specific regions and specific vulnerable groups of citizens.

Related programs or initiatives, such infrastructure spending in the agricultural sector has not been linked up with health and nutrition – although the need to do so has been recently recognised by the Government. For example, Ghana has extensive agricultural programs in place to support food production (Table 2) but there appear not to be linked with the national nutrition or preventative health agenda, except in the context of programs operated by NGOs - for example the World Food Program or USAIDs support for improvements in food supply chains.

As noted above, they most relevant private sector involvement in the health, food and nutrition sectors is through two major mechanisms:

- **Provision of Private Health Insurance Sector** Under the National Health Insurance Act 2012, private sector providers for health insurance are permitted to operate under licence. In addition to the NHIS, there are currently 13 licenced private health insurance companies, one private mutual health insurance scheme, 19 health insurance brokers and one health insurance loss broker operating throughout Ghana Private insurance providers are required to only conduct business with NHIS credentialed providers. Licences are mandatory and are issued by the National Health Insurance Authority (NHIA) for 3 year periods (NHIA, 2022).
- **Private Sector Production of Local Nutritious Foods for Food Programs.** Local farming groups and food processors directly engage with international NGOs to develop specialised nutritious foods (SNFs) as part of addressing malnutrition and micronutrient deficiency in selected projects across Ghana. For example the World Food Program (WFP) worked with local private sector food processors in social behavioural change communication (SBCC) campaigns that was launched to promote the consumption of locally produced specialized nutritious foods (SNFs) and other locally available nutritious foods in Northern Ghana. The WFP also engaged with local food retailers in the targeted communities as information conduits to target groups (World Food Program, 2020).

Table 3 : Selected Health and Nutrition Policies

The Coordinated Program for Economic and Social Development Policies (2017–2024) (President of the Republic of Ghana, 2017) Presented to Parliament in 2017, this sets out the national development strategy, including food and nutrition and related policy objectives. These include:

- Measures to prevent food losses and promotion of locally grown, nutrient rich food.
- Developing and implementing a nutrition strategy
- Reviewing and scaling up the Regenerative Health and Nutrition Program
- Eliminating Child and adult overweight and obesity
- Infrastructure for constituencies to invest $1million per year in an agricultural, industry, small business water or sanitation project.
- Expansion and renewal of the LEAP and school feeding programs.

Universal Health Care Roadmap 2020-2030 Released 2019 as a priority strategic document to guide health services to 2030 the Strategy focuses primarily on primary health care which it defines as incorporating nutrition services. This is defined as supporting breastfeeding, provision of vitamin A to children, disease prevention through residual spraying (vector borne diseases), WASH activities, etc…The strategic aim is to attain at least 80% coverage of Ghanaians having access to essential health services, and attain 100% health insurance coverage for primary level services (Ministry of Health, 2019).

National Health Policy: Ensuring Health Lives for All A revised National Health Policy was released in January 2020 (Ministry of Health, 2020) with the vision: *A Healthy Population for National Development.* Guiding principles for health policy include multi-sectoral collaboration, strategic partnerships, decentralisation, equity, and citizen's Involvement and social accountability. Preventative care in the form of immunisation is already considered a key part of the health care service provision. The policy has 5 objectives, three of which have direct relevance to nutrition, UHC and preventative health care. These include:

- A commitment to achieving UHC, using a broad range of health setting including public and privately run facilities;
- Encouraging the adoption of health lifestyles;

- Ensuring sustainable finance - both within the health sector, and incorporating spending on interventions in other sectors and moving towards self-reliant financing without support from official development assistance (ODA).

National Medium Term Development Policy Framework (2022-2025) Released in December 2021 to operationalise medium term development priorities. Key health and nutrition related goals include ensuring quality UHC, promoting healthy food environments, improving health care promotion and reduce by 30% the mortality rate from non-communicable diseases (National Development Planning Commission, 2021a).

Health Sector Medium Term Development Plan This Ministry of Health medium term operational plan incorporates a number of relevant - but unfunded – goals (Ministry of Health, 2021):

- Strengthen the enabling environment for improved breastfeeding and complementary feeding practices
- Reduce the burden of anaemia and other micronutrient deficiencies in WIFA and children Reduce the growing burden of overweight & obesity
- Strengthen Community Engagement and Risk Communication for health promotion.

National Nutrition Policy (NPP) Released in 2016 as a framework to develop action across key ministries, departments, agencies, civil society organisations, research and academic organisations to 2021 (Government of Ghana, 2016). A 2018 Review of the NPP found that the NPP had not been adequately implemented or been effective (Nwafor, 2018).

Ghana School Feeding Program Started in 2005 as a social protection intervention to support and keep children in school - targeting disadvantage children in public primary schools and kindergarten. The World Food Program (WFP) initially partnered with the Government to deliver the program, but since 2016 has handed it over to the government to operate. The WFP continue to provide technical support. A 2017 cost-benefit study calculated that for every GHS 1 spent in the school feeding program, an economic return of GHS 3.3 was generated over the lifetime of the participating pupil (Dunaev and Corona, 2017).

Livelihood Empowerment Against Poverty (LEAP) Was established in 2007 as the flagship social protection program for the support of extreme poor households through direct and electronic cash transfers. Participation is limited to those aged 65 years and above, without any form of support, severely disable people, orphans and vulnerable children and extremely poor or vulnerable households with pregnant women, and mothers with infants.

Targeted Assistance for the Agricultural Sector
Over the last two decades, the Government of Ghana as implemented a range of targeted support programs for the agricultural sector. These include:

- The Ghana Agricultural Insurance Programme (GAIP) (Government of Ghana, 2022a) developed the first agricultural insurance products for the country and now provides a risk management tool for the adverse effects of climate change and other risks to agricultural production. The insurance is provided by a pool of 19 Ghanaian insurance companies.
- The National Food Buffer Stock Company (NAFCO) - Limited Liability Company wholly owned by the government of Ghana to support security of farmers and insulate them against losses as a mechanism to stablise prices in the local market and earn foreign exchange. (Government of Ghana, 2022b)

Challenges

During the research for this Concept Note, we have identified three main challenges facing Ghana as it seeks to build on its existing suite of policies and programs to meet its ambitions for expanding the scope and coverage in the NHIS.

Funding Model Challenges

The NHIS funding model is stable, but no longer fit for purpose. The reliance of NHIS funding on tax receipts from VAT (Wang et al, 2017) has created a stable source of funds. However, this also means that a large proportion of economic activity that goes on in the informal sector of Ghana's economy - estimated at around 70% of economic activity - does not have an institutionalised pathway to fund public health insurance. Financial constraints, high taxes and perceptions of 'no-benefits' are instrumental in entrepreneurs' decisions to become part of the formal or informal economy in Ghana (Koto, 2015). This suggests that in difficult economic times, such as now, economic activity in the informal sector may grow at the expense of the VAT paying formal sector - exacerbating the NHIS funding problem.

Demand is rapidly outstripping revenue growth and the exemption policy for paying NHIS premiums poorly targeted. Growth of claims in cost terms has outpaced growth of NHIS revenue – driven by an increase in utilisation, increasing the number of individuals covered and increases in cost per claim (Wang et al, 2017) Many studies report that patients are required to make out of pocket payments The recent increase in the number of people covered by the NHIS is thought to be due to the impact of automatic annual re-enrollment, which has reduced the number of drop outs from the scheme. Increase in coverage from 40 to 54% - how did this happen? Automatic enrolments (when started--) do not explain scaling out

Although exemptions are designed to ensure equitable access to NHIS funds, only 1.2% of total premium exemptions are directed towards individuals who are classified as poor or vulnerable[31] There is evidence that enrolment in the NHIS is positively related to wealth, education status and profession - with agricultural workers least likely to be enrolled (Salari et al, 2019) - although health services provided through the CHPS are free for all rural citizens. Initially, the concept was for premiums to be scaled according to the payers income level. However, as there is no accurate measurement of income, the default has been to charge a constant premium rate.

Administrative and Operational Challenges

Reimbursement and perverse incentives. The NHIS reimbursement model used by the NHIS is complicated and slow and leads to facilities charging out of pocket expenses to patients, despite the principle of 'free service at point of delivery'. In addition, the use of a fee for service for reimbursement to health facilities encourages over servicing.

Capital Investment. The NHIS is working in a health system that needs extensive capital investment and upgrading of services in the midst of ongoing concerns about the quality of care. Other problems include insufficient and inappropriate staff mix at primary health care level, a lack of basic infrastructure and equipment in over 50% of facilities and an inefficient procurement (Ministry of Health, 2019).

Gaps in Service Provision and the "Missing Middle"

The structure of the scope and coverage of the NHIS in Ghana has generated three related critical gaps that need addressing as Ghana moves towards UHC:

1. **The "missing middle".** The NHIS funding model focuses on enrollment by formal sector workers and (poorly) targeted subsidies for the poor. Informal sector workers can participate in the NHIS but do so on a voluntary basis. For various reasons, informal workers enrollment has been low - for example due to affordability reasons or a perception that it is 'not needed' (Ayanore et al, 2019). Consequently this 'missing middle' is financially unprotected against health related financial shocks. Due to its voluntary nature, and the effort required to enrol, NHIS participation by informal sector workers is generally subject to an adverse selection problem - those with high anticipated needs are more likely to enrol, thus adding to health care costs as premiums are low relative to health care costs (Bitran, 2014). Overall, while the structure of the NHIS allows for participation by the informal sector, it is structured in a way that at best provides no incentives and, at worst, presents barriers to enrolment.

2. **Health Transition.** In addition to this missing middle problem, as Ghana goes through its health transition, the definition of what constitutes '95%' of disease conditions in Ghana may change - for example dialysis is specifically excluded as is most cancer treatments and obesity related problems that can lead to heart, kidney or liver problems (National Health Insurance Scheme, 2022b). As obesity is currently on the rise in rural and urban Ghana, there is likely to be a growing need to expand the range of curative medical interventions in the 'benefits package' offered by the NHIS - as well as continuing the coverage of existing diseases.

3. **Community Health Planning Services (CHPS) centres.** CHPS are a widely established national network of primary health care facilities, targeted at poorer communities, but are limited to the rural areas covering only 44% of the population. This may be due to a lack of formal definition for 'communities' - which colloquially tends to refer to rural areas only. This means that basic health facilities are lacking in urban areas. In the national census, 56% of Ghanains live in urban areas. Of these urban populations, 24% do not have access to primary health care facilities (GSS, 2022c) Further, it is estimated that around 5% -60% of CHPS, depending on the region, may be not working as intended due to a range of reasons including, for example, lack of access due to poor (public) transportation infrastructure, poor coordination between different levels of the health system or lack of appropriately qualified staff or the impact of traditional cultural beliefs on willingness to attend formal health care (Bassoumah et al 2021, Kweku et al, 2022) . Adding to this urban/rural divide is the access to healthy foods. In general, the rural population has better access to healthier foods due to their ability to grow fruit and vegetables - a point not captured by the formal food studies such as Filling the Nutrition Gap.

Nutritional Status of Ghana

Ghana experiences the 'triple burden' of malnutrition of citizens who are underweight, citizens who are overweight and obese and citizens who are micronutrient deficient (World Food Program, 2022b). Rates of overweight/obesity are higher among those with higher socio-economic status and who are in an older age group and are have urban residency - placing them at greater risk of diabetes, hypertension and cardiovascular conditions.

Poverty and hunger are largely problems of rural areas due to a range of factors including, underdeveloped markets, access to finance, food wastage, unsustainable farming practices. Ghana is also experiencing food inflation at 34% (GSS, 2022b) nationally with some regions, and/or staple items, experiencing higher rates. World Food Program monitoring of food markets found that 10 markets out of 11 markets monitored nationally are in crisis.

Despite this, average per capita food expenditure in Ghana has been calculated as more than enough to purchase a local healthy diet - even taking into account local dietary preferences (Figure 2). Yet Ghanaians are consistently under consuming fruit and vegetables (National Development

and Planning Commission 2022b), over consuming red meat, micro-nutritional deficiencies remain (Figure 3) In addition, consumption of red meat is considered too high, relative to international benchmarks (Development Initiatives, 2021).

This indicates that a healthy diet is, on average, an issue around food choice and food culture and not about budget per se. Internationally, food system design and regulation is considered key in incentivising healthy food choices. Evaluating the quality of the food system, as a whole, is an important part of addressing nutrition related non-communicable diseases - such as hypertension and obesity - which may become more prevalent as Ghana undergoes its demographic transition.

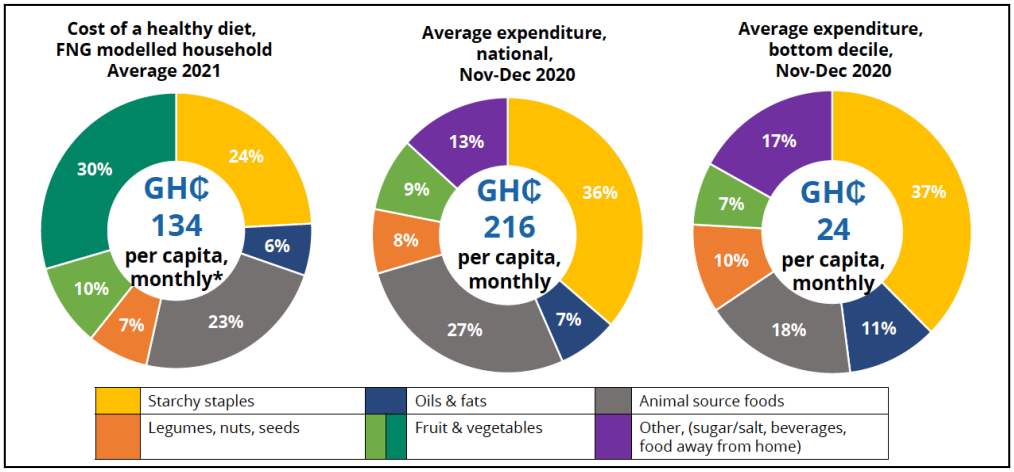

Figure 3: Comparison of actual spending versus benchmark healthy diet
This data only captures purchased foods and this does not include food grown and consumed by households. Source: National Development and Planning Commission 2022b

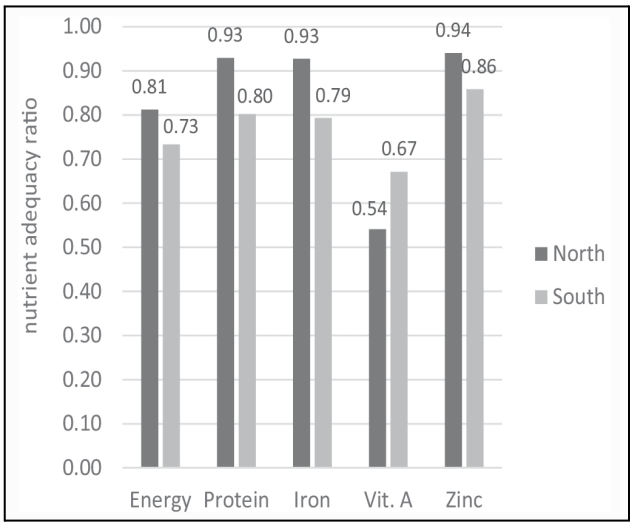

Figure 4: Nutrient Adequacy Ratios
Here data demonstrates that regardless of food sourcing strategies, deficiencies across nutrition categories are likely to persist - with differences experienced by northern and southern communities
Source: (Aberman et al 2022).

Evidence suggests that while political commitment to good nutrition is high, actually food policy to deliver on these commitments is underdeveloped in Ghana with many components in Ghana's food system[2] having received only moderate or little attention from policy makers. A recent expert review of Ghana's food system[12] assessed government action to improve food healthiness against 43 international best practices and process. This review concluded that sufficient progress had only been made in addressing marketing regulations on breast milk alternatives and that, more broadly, food policy lacks the coherency and comprehensiveness required to create a healthy food system that incentivises healthy food choices.

A further factor in nutrition is that, for some communities, food availability and access continues to be a factor. For example low income households in the Filling the Nutrition Gap Report (Figure 2) have a monthly spend is 18% of the minimum required for a healthy diet.

[2] Food systems are defined as "the collective physical, economic, policy and sociocultural surroundings, opportunities and conditions that influence people's food and beverage choices and nutritional status" (Swinburn et al, 2013)

This same report found that a comparison between actual expenditure and the cost of the lowest cost locally available diet that meets nutrient needs suggests that healthy diets were unaffordable for 10% of the population in Greater Accra rising to 78% in Northern Region. While Figure 2 does not include own home grown food, Figure 3 highlights that significant micronutrient deficiencies occur in the north and south, regardless of where food is sourced.

Overall, Figures 1 and 2 underscore the need for food policy to continue to ensure food accessibility for vulnerable groups.

Opportunities for Action

In this section, we highlight some potential areas of policy innovation that could be leveraged to support transformation in the NHIS. New public policy initiatives are often easier to implement if they can find pre-existing government commitments or programs to 'hook' the concept on. In this way, policy advocates can 'sell' the initiative as a way for decision makers to implement policies that have already been agreed to. These 'policy hooks' can also be a mechanism through which to secure resources.

This section briefly examines potential 'policy hooks' that are relevant to Ghana from its involvement in international agreements, the participation of NGOs in Ghana's development and in national level policy.

International Opportunities

Ghana participates in a number of international food, nutrition and health fora, and has, historically, incorporated a number of international NGOs into its development strategies across the food, health and nutrition sectors. In general, NGO delivered programs have been, and continue to be, highly targeted and location specific interventions around micro-nutrition, food supplementation and therapeutic feeding or strengthening food supply chains. Currently active programs are being run by the World Food Program, UNICEF, USAID will coordination through Scaling Up Nutrition Initiative which also coordinates NGO and sectoral input into key national policies (National Development and Planning Commission 2022a). However, NGO intervention is not always effective - for example evaluation of the WFP program for 2021 indicated that performance targets have not been met (World Food Program, 2022a).

As a middle income country, Ghana is already looking towards the gradual phase out of NGO involvement in program delivery and the gradual withdrawal of ODA funds. While challenging, this generates a number of opportunities for Ghana (Government of Ghana, 2019).

First, over the years of their operation, NGO have built up a rich set of experiences, knowledge, data, resources, materials and physical project outputs that is of great value to the future work of Ghanaian policy makers. During the phase out of NGO work in Ghana there is a valuable opportunity to to capture and institutionalise this valuable cache of health, nutrition and food/agriculture information for future policy making and program development. Without an exit strategy to capture this information, 60 plus years of food, agriculture, nutrition and health experience in Ghana could be lost.

Second, as the NGOs, and ODA more broadly, withdraw from Ghana, there is the opportunity for Ghanaian entrepreneurs to take their place. This process can draw upon a rich history of private sector- NGO cooperation - for example through the World Food Program. However this requires the development of appropriate policy and market institutions that create the incentives, and entrepreneurial space, for the private sector to craft their own solutions to Ghana's food, nutrition and health challenges.

In addition, there are two other international focussed opportunities that may support the move towards UHC and healthy diets in Ghana:

UN Food Systems Summit - during the 2021 Summit, Ghana has signed onto a number of theme and problem specific coalitions and networks to carry on the work of the Summit. Most of these coalitions are being used to share knowledge, best practice and develop collaborations - rather than as sources of additional resources to support new projects. However they could provide important connections for new projects or financing over time.

Coalitions include those focusing on zero hunger, food productivity, food supply chain resilience, aquatic sources of food and a 'healthy diets from sustainable foods' platform. Details about the action coalitions being developed from the UN Food Summit may be found here: https://foodsystems.community/coalitions-in-the-context-of-the-food-systems-summit/

Development of Ghanaian Green Bonds. The Government of Ghana has established a bond program for the national education system - the Daakye Bond Program (Schelhas and Mohsin, 2021) which could provide a model for bonds in other sectors. It also announced in July 2021 that the Government will issue green and social bonds of up to $2bn by the end of 2021 (Dontoh, 2021) In support of this aim, a Green bond capital market has been approved by the Ghanain Securities and Exchange Commission with anticipated launch before the end of 2022 (B&FT Onle, 2022). The Government has also issued a Sustainable Financing Framework (Ministry of Finance, 2021).

National Opportunities

As mentioned in the section in Responses, Ghana has in place a number of policies and programs designed to address nutrition, health and food. Any of these policies could be used as a 'policy hook' for progressing implementation of concepts developed through the CPBC. However the two strongest 'policy hooks' appear to be:

National Health Policy: Ensuring Healthy Lives for All. Three objectives under this policy directly address food, nutrition and health:

- ***Objective One:*** Achieving Universal Health Coverage to address inequities in access to healthcare facilities and the package of services (preventative, promotive, curative, rehabilitative and palliative). Services will be delivered in a range of different health setting - from CHPS compounds to hospitals - and incorporate both public and privately run facilities.[72]
- ***Objective two:*** Encourage the adoption of a healthy lifestyle including strategies such as promoting good nutrition and physical activity. This objective will include collaboration with the Ministries of Agriculture, Trade and Industry, Youth and Sports, Interior, Tourism, Health and Local Government and Rural Development.
- This is a key objective of the policy - and taken from the regenerative health program. Invite National Sports for All program representative
- ***Objective 5:*** Ensure sustainable financing for health - recognising that financing for health encompasses traditional funding of health care delivery as well as financing interventions in other sectors whose primary intent is improving population health e.g. agriculture. It recognises that, as ODA in the health sector dwindles, health agencies will need to become financially self-sustaining.

Universal Health Care Roadmap 2020-2030 - This policy established the concept for UHC in Ghanaian health policy. Its strategic aim is to attain at least 80% coverage of Ghanaians having access to essential health services, and attain 100% health insurance coverage for primary level services (Ministry of Health, 2019).

In addition, a number of existing government *programs* may provide 'policy hooks' through an extension in their coverage or mandate. Key programs here include:

- **Community Health Centres and Outreach Programs** Despite the challenges facing CHPS, they still represent a basic national health infrastructure that could, with additional support and reform, be transformed into a key part of health prevention and healthy diet promotion.
- **Increasing use of e-health and mobile technologies** The Ministry of Health has previously developed an e-health policy and has incorporate e-health data record keeping and internal health system management, logistics management or telemedicine (Ministry of Health, Undated). Such approaches could also be potentially adapted to support initiatives around preventative health and diet in user focussed activities - to support health self-management. The high rate of mobile phone use, particularly amongst younger people, supports this concept. Opportunities for using smart phone technologies to support healthy diet choices are currently being explored (Braga et al 2021).
- **Inauguration of Traditional Medicine Council.** The Ministry of Health has recently formed a Traditional Medicine Council to promote health through traditional approaches. In support of traditional medicine use, a specific policy and regulatory directory has been established at the Ministry of Health (see https://www.moh.gov.gh/traditional-alternative-medicine-directorate/).
- **Regenerative Health and Nutrition (RHN) Programme** This program was recently established in the Ministry of Health to draw on the healthy lifestyle and prevention experiences of the African Hebrew Community in Israel for adaptation to Ghana.[70] Its long term aim is to bring about a reduction in the cost of lifestyle diseases such as Hypertension, Diabetes, Cancer, Gout and others which are currently on the increase (see: https://www.moh.gov.gh/regenerative-health-nutrition/).

New funding opportunities have also been developed with the World Bank (World Bank, 2022a). One program - the Primary Health Care Investment program of $150m USD led by the Ministry of Health - will support the Government's strategy for strengthening primary health care at the sub-district level and improve the accessibility and quality of essential health services (World Bank, 2022d). Another program - the Service Delivery Program, led by the Ministry of Finance- will provide $150m USD of support to improve public resource mobilization, and greater resource allocation for public investment, and mitigation of Ghana's debt situation (World Bank, 2022c). While a third program - the West African Food System Resilience Program will invest $150million USD into food systems.

In addition, in 2021, the Government signed a funding agreement for the Country Strategic Opportunities grant with the International Fund for Agricultural Development to strengthen agricultural productivity through improving access to technology, improving access to finance services and strengthening entrepreneurial, business and organisational management skills amongst other objectives. The program is scheduled to run until 2024 (IFAD, 2019).

All of these programs are provided to Ghana as primarily loans - which will add significantly to Ghana's already high debt to GDP ratio.

Cambridge Policy Boot Camp: Part of the Food System Game Changers Lab 2.0

The Food Systems Game Changers Lab (FSGCL) 1.0 - which was a major part of the Summit - collected more than 500 solutions, from 83 participating countries, during the leadup to the Summit reflecting a diverse range of ideas, innovations and initiatives. Further screening of the ideas brought together 24 Solution Cohorts who co-created an Action Agenda that offers a vision for future food systems that are sustainable, equitable, healthy, and diverse, as well as a transformative pathway to realise that vision through a particular collective solution set.

The Cambridge Policy Boot Camp (CPBC) builds on the work of FSGCL 2.0 by providing the tailor connections between specific food system problems that a (local or national) governments want to tackle and the participants in the Game Changers Lab who have chosen to specialise in that particular area of the food system.

The CPBC methodology allows participants to engage in an intensive exploration of a given challenge through a multi-layered system lens, guided and supported by a dedicated group of expert facilitators and mentors with years of substantive expertise. The “challenge owner” (government entity) takes part and is committed to taking forward the outcomes of the boot camp.

The CPBC approach can greatly facilitate the process of moving from a specific solution, developed as part of the FSGCL 1.0, to propositions with system-changing potential, via matchmaking with governments and companies and “stress testing” of the propositions against the realities of a particular context.

The Cambridge Policy Boot Camp (CPBC)

The CPBC is a transdisciplinary ‘action research’ method developed by Dr Nazia M Habib, the Centre Head and the Founder of the Centre for Resilience and Sustainable Development (CRSD) at the University of Cambridge, UK. A multi-disciplinary team of experts at the Centre are also members of the Department of Engineering at the University of Cambridge.

The CPBC is an agile approach to quickly identify, document and use evidence to develop potential solutions for a complex policy problem. The aim is to integrate multiple perspectives, using mutually reinforcing frameworks, that can provide practical direction for complex decisions[74] and promote resilient solutions within the given context and resources.

Using collective design thinking CPBC supports decision makers to make better decisions without spending a lot of time, money and energy by addressing three key challenges in designing policy:

1. Insights brought to unlock thematic challenge - allows policymakers to quickly come to terms with the complex systems within which they operate, and the scope and scale of potential effective policy responses (e.g. complex multi-level governance of the food system and public food)

2. Insights brought to unlock technical challenges - this acts to improve coordination and collaboration between knowledgeable parties and the powerful entities required through creative and critical thinking to unlock shared insights to find common ground. Doing so often reduces transaction cost and improves shared trust in the policy system.

3. Insights brought to unlock outreach challenge - this acts to engage with external agencies (including media) to secure (implicit) buy-in in the new policy systems, This is an important part of

the CPBC design to create potential institutions that can facilitate, promote and secure long term rights for the under 5's to access a Minimum Acceptable Diet.

Using a combination of dynamic systems thinking approach blended with political economic theories, decision science and creative design, a CPBC exposes participants to social design thinking, complex deductive reasoning and empathetic analysis. Articulation of outcomes, exposure to trade-offs, unintended complexity and inefficiency in the existing system enables individuals to question inherent biases, exercise critical thinking capacity and to practise negotiated reasoning skills in a short burst of time.

Empirical studies on the impacts of applying system thinking indicate that systems thinking can significantly improve organisational leadership performance and efficiency (Skaržauskienė, 2010), and is integral to effective project management (Kerzner, 2017) which can improve crisis responses (Goldberg, 2013).[3] Improving crisis response is part of developing a resilient system, which can also optimise itself by conducting specific practices such as getting rid of outdated knowledge or tools (Cherney and Head, 2011), and engaging in co-producing research, form new network, and invest in new structures (Kitson et al, 2018).

CPBC is primarily intended to benefit identified lead organisations in the process - as they are the accountable party with the mandate to implement the best ideas developed by participants.

The anticipated outcomes from the CPBC are:

1) sharpened quality of the solutions in terms of their relevance and effectiveness in a particular policy/political economy context.

2) expanded individual level capacity amongst the participants (stakeholders, shareholders) to apply systems thinking in the development of solutions; and

3) generating advance commitment in specific policy-making entities (national or local) to operationalize solutions

To ensure we achieve these outcomes, the co-creating partners in this action-research have set out a number of the **impact variables** that are intrinsically connected with the impact outcomes and intertwined in the CPBC delivery process. During Phase 1, context-specific definitions are being developed that are locally understood, and the anchor agency and the ultimate beneficiaries are being identified while drawing up the boundary conditions for the systems analysis to develop Phase 2. During Phase 2, when the workshop mode is on, participants who are representing the ultimate beneficiaries along with other shareholders and leadership representatives from the stakeholders, are learning various creative and analytical tools and applying them to define and analyse the solutions. During the workshop, participants learn system thinking approaches and apply them. In Phase 3, the leadership representatives from the stakeholder group not only become the designers of the policy ideas but also engage in the validation of the synthesis which leads to advanced buy-in for the policy pathway that emerged from the co-creation process.

The CPBC Delivery Process

Each Cambridge Policy Boot Camp works with an 'anchor agency' that holds the appropriate budget and mandate for taking forward any policy options developed - and is therefore the ultimate beneficiary of the project.

[3] Decision makers and participants from over 90 countries have benefited from the Cambridge Policy Boot Camp experience. Policy topics addressed in CPBC exercises have spanned safe repatriation of refugees to upskilling policy for industry 4.0. To find out more about the research centre work see https://www.crsd.landecon.cam.ac.uk

In Ghana, the 'anchor agency' will be the Ministry of Health which has the mandate within the Government of Ghana to improve the health status of all people living in Ghana thereby contributing to Government's vision of universal health coverage and a healthy population.

Representatives from stakeholders and shareholders are identified through rigorous consultation with the global and national experts who are dealing with the policy challenge on a daily basis. It is their insight into the value chain of the policy and product that allows CPBC to address unintended consequences collectively and efficiently.

There are five stages in executing a Cambridge Policy Boot Camp. Throughout these stages, the EAT and Cambridge teams will work together with the responsible government institution that has committed to the CPBC as "owner"[4] of the key challenge question, and with Thought for Food as the host of FSGCL.

(a) **Stage 1: Setting up (Overall project):** The FSGCL 2.0 leadership team, along with the EAT-Cambridge team develop a Country/Idea selection protocol to ensure the CPBC is targeted well. Based on the framework, countries will be selected or invited, a decision to be made collectively.

(b) **Stage 2: Interlinked Analysis (CPBC Phase 1):** Conducting background research to identify and map the underlying system of relevance to the specific challenge area and corresponding solution cohort that the government entity wants to engage with through the CPBC, related networks and the ultimate beneficiaries. This stage takes approximately two to three months to complete.

(c) **Stage 3: Boundary Setting (CPBC Phase 2):** Define a question that pinpoints the exact challenge that a government entity wants to tackle, within its institutional mandate, and that matches the specific FSGCL solution cohort.

(d) **Stage 4: Workshop Design and Execution (CPBC Phase 3):** Design a time-bound workshop in close collaboration with the lead government institution as identified in phase 1 (See figure 1), and invite ultimate beneficiaries as identified through these same steps. Participants from the FSGCL solution cohort will also be identified and selected to play important roles - some as mentors, others as facilitators or note takers, and others as participants.

The workshop date is 28 July, 2022 from 09:00 to 13:00 (London, UK Time).

(e) **Stage 5: Synthesis, Follow-Up and Evaluation (Overall project):** There will be constant engagement between the EAT-Cambridge team throughout the process. In particular there will be structured collaboration to produce two types of documents reporting on the synthesis of the outcomes from the CPBC.

[4] Also known as the anchor angency.

Defining key terms in the CPBC methodology

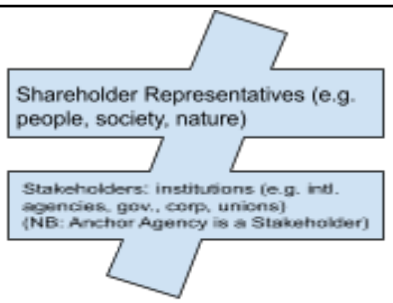

Figure 5: Sketch of intertwined representation of CPBC Participants

Shareholders are the problem owners and less powerful groups in the policy system. If anything improves in the policy system due to a policy application, the shareholder group should benefit first. For example, a healthy school meal will benefit the students before their families for having healthy children.

Stakeholders, as categorised in the CPBC analytical process, possess greater political economic power. This group is often represented by institutions that have institutional mandates or some provision of responsibility to implement the articulated policy, when made public. It is the same group that can contest the policy or help complete the policy life cycle. The CPBC method applies insights from network research to identify stakeholders who need to be part of the co-creation process of policy articulation to reduce unintended consequences. By involving policy stakeholders from the starting point of the CPBC design phase, individuals participating in the process benefit from systems level understanding and can appreciate the institutional value of being part of the change process that a particular policy design is aiming for.

'Ultimate Beneficiary' (UB) is a group of population represented within the shareholder group, is also identified *for whom* the policy articulation is needed and is going to take place. During this first phase, boundary conditions are set around the problem in partnership again with the anchor agency who is aiming to improve communication and commitment to its shareholders and stakeholders of the solutions.

Policy Anchor (PA) is a member within the stakeholders category, often a government institution at any level—national, regional or local—which is the *owner* of the challenge and hence has the authority to make policy and institutional changes.[5] Every CPBC is delivered in partnership with a local policy *anchor agency*. Policy anchor agency is the 'owner' of the solution. The owners are typically a local institution, a government agency that is responsible for rolling out a transformation change for a given challenge.

[5] For an example of a recent Cambridge boot camp see: https://www.globalfood.cam.ac.uk/news/un-food-systems-summit-2021-and-eat-foundation-applied-cambridge-policy-boot-camp-methodology

Co-creation Partners, Participants and Facilitators

In collaboration with stakeholders and the CPBC Workshop focal point Ministry of Health, Ghana, the University of Cambridge, UK and EAT Foundation, the team will deliver the four-hour Cambridge Policy Boot Camp on the 18th of November to answer the key question:

How to improve the financial viability of the National Health Insurance Scheme to provide wider coverage to Ghanaians, and prevent diseases by implementing healthy diets by 2025.

There are four different types of participants in the Cambridge Policy Boot Camp - country participants, the University of Cambridge, the EAT Foundation and the Food Systems Game Changers Lab. Key participants in each group are listed below.

Participating Organizations

It is anticipated that representatives of the following organisations will participate in the Cambridge Policy Boot Camp.

Consumer Protection Agency
Council for Scientific and Industrial Research - Food Research Institute
FAO Ghana Office
Food and Drugs Authority
Ghana Health Service
Ghana Revenue Authority
Health and Development Planners International
Institute of Leadership and Development
Mental Health Authority - Ghana
Metronics Labs
Ministry of Food and Agriculture
Ministry of Health
National Development Planning Commission of Ghana
National Health Insurance Authority
Shoprite
University of Ghana
University of Health and Allied Sciences - Ho, Ghana
World Food Programme - Ghana Office

Participants from Ghana

Names	Title
Mark Offiei	Nutritionist Analyst
Frederick Vuvor	Lecturer, University of Ghana
Mary Mpereh	Deputy Director National Development Planning Commission of Ghana

Ms Patience Asiedu	Head of Nutrition, World Food Programme - Ghana Office
Mr Kwabena Boadu Oku-Afari	Chief Director, Ministry of Health
Professor Francis B. Zotor	Head of Department and Senior Lecturer, University of Health and Allied Sciences - Ho, Ghana
Mr Mark Kojo Atuahene	Acting Head, Public Health and Health Promotion Ministry of Health
Dr Nathaniel Ebo Nsarko	CEO, Health and Development Planners International
Mr Darlington Divine	Researcher at Ghana Health Service
Ms Christiana Nafrah	Director of Agriculture, Ministry of Food and Agriculture
Mr Benjamin Anabila	Director, Institute of Leadership and Development
Ebenezer Kofi Essel	Head of Department and Director, Food and Drugs Authority
Dr Alex Kombat	Head of Revenue Allocation, Ghana Revenue Authority
Mr Issah Ali	Executive Director, Institute of Leadership and Development /Vision for Alternative Development
Ms Kafui Dansu	Administrative Manager, Ministry of Health
Ms Gifty Aidoo	Principal Regulatory Officer/Head of Nutrition Unit, Food and Drugs Authority
Dr Yaw Opoku-Boateng	Deputy Director, National Health Insurance Authority
Ms Yonne Sedegah	Senior Manager,National Health Insurance Authority
Dr. Isaac Agbemale	Head of Department, University of Health and Allied Sciences - Ho, Ghana
Ms Phyllis Addo	Lecturer, University of Health and Allied Sciences - Ho, Ghana
Ms Mercy S. Effah-Agyemang	Customs Chemist, Ghana Revenue Authority - Customs Lab
Ms Yasmin Alhassan Adam	Customs Chemist, Ghana Revenue Authority - Customs Lab
Mr Killicks A. Yeboah	Regional Manager Shoprite

Mr Kwame Larbi-Siaw	Divisional Manager, Shoprite
Dr. Ben K. Mintah	Research Scientist, Council for Scientific and Industrial Research - Food Research Institute
Mr Benjamin Akoto	Head of Research and Complaints Managemen,t Consumer Protection Agency
Ms Esther Duah	Programme Officer, Ghana Health Service - Family Health Division
Mr Cheetham Mingle	Chief Regulatory Officer, Food and Drugs Authority
Mr Suleman Yahaya	Communications Officer, Institute of Leadership and Development
Mr Idrissa Cole	Country Lead for Sierra Leone, currently supporting Ghana Metronics Labs
Professor Akwasi Osei	Chief Executive Officer, Mental Health Authority - Ghana

University of Cambridge, UK

No.	Name	Title
1	Dr Nazia M Habib	Associate Professor and Head of Research Centre, Centre for Resilience and Sustainable Development (CRSD), University of Cambridge, UK
2	Dr Nicky Athanassopoulou	Research Associate and Head of Knowledge Transfer, Centre for Resilience and Sustainable Development (CRSD) and IFM Engage, University of Cambridge, UK
3	Dr Ramin Takin	Research Associate at the Centre of Resilience and Sustainable Development (CRSD), Institute for Manufacturing (IfM), University of Cambridge
4	Dr Imohiosen Ilevbare	Principal Specialist in strategic technology and innovation management (STIM) at IfM Engage, University of Cambridge, UK
5	Dr Diana Khripko	Senior Solution Development Specialist, University of Cambridge, UK
6	Mr Terry Nicklin	Communication Specialist, the Centre for Resilience and Sustainable Development (CRSD), University of Cambridge, UK
7	Dr Hannah Parris	Research Associate of the Centre for Resilience and Sustainable Development (CRSD), University of

		Cambridge, UK
8	Mr Charles Mawusi	Administrative Assistant of Centre for Resilience and Sustainable Development (CRSD), University of Cambridge, UK
9	Professor Steve Evans	Director of Research in Industrial Sustainability at the Institute for Manufacturing, University of Cambridge, UK
10	Mr Richard Jones	Centre for Resilience and Sustainable Development, University of Cambridge, UK
11	Mr Steve McCauley	Senior Fellow of the Centre for Resilience and Sustainable Development, University of Cambridge, UK
12	Mr Arun Kelshiker	Research Associate of the Centre for Resilience and Sustainable Development (CRSD), University of Cambridge, UK

EAT Foundation Experts:

No.	Name	Title
1	Olav Kjørven	Senior Director of Strategy, EAT Foundation
2	Lujain Alqodmani	Director of Global Action, EAT Foundation
3	Marius Weschke	Implementation Officer, EAT Foundation

UNIVERSITY OF CAMBRIDGE
Centre for Resilience and Sustainable Development

Agenda

Date: 18 November 2022 9:00-13:00 (London UK Time)
Zoom: https://eng-cam.zoom.us/j/4330861571

Time	Speakers and sessions
5 min (0900-0905)	Welcome and Introduction (HELLO) ***Anchor:*** Mr. Steve McCauley, CRSD Senior Fellow Dr. Nazia M Habbib (2 min) ***Room:*** Main Session
5min (0905-0910)	Opening Remarks Kwabena Boadu Oku-Afari Chief Director-Ministry of Health
15min (0910-0925)	Invite Experts To Speak On The Issue Five experts will offer **3 minutes of reflection** on the thematic challenge of the Cambridge Policy Boot Camp. ***Room:*** Main Session
10min (0925-0935)	Introduce Techniques (BRIEFING) Multiple thinking techniques will be introduced to the participants who are then asked to select one or two techniques to address the CPBC challenge. ***Room***: Main Session
5min (0935-0940)	Break: ***Room***: Breakout rooms
90min (0940-1110)	Group Application (APPLIED THINKING) Groups will be formed and sent to the breakout room where they will use the thinking techniques to analyse the CPBC challenge and come up with tentative solutions. Experts will be assigned to each room to provide further help. **5 Minutes Break (** At the discretion of the Facilitator**)** ***Room***: Breakout rooms
5min (1110-1115)	Break ***Room***: Main room

10min (1115-1125)	NABC Presentation skill (Elevator Pitch) A technique will be introduced to the groups to enable them to summarize their ideas for presentation. ***Anchor:*** Dr. Diana Khripko ***Room:*** Main room
50 min (1125-1215)	NABC Presentation Prep (SMART THINKING) Groups will re-enter the virtual room and rework on their solutions by revisiting the presentation technique. ***Room:*** Breakout rooms
30 min (1215-1245)	NABC Presentation All the groups will come back to the main room, and present their ideas one by one to the experts and decision-makers from various stakeholder institutions. Each group is given 5 minutes to present their solution. ***Room:*** Main room
10min (1245-1255)	Feedback and Discussions: The best idea will be announced and offered a chance to be integrated with further support from the Ministry of Health. ***Room:*** Main Session
5min (1255-1300)	Closing Professor Akwasi Osei (CEO, Mental Health Authority) (2min) Mr Olav Kjørven (1 min) Dr Nazia Habib (2min)

The Cambridge Team will stay online for the next 30 minutes to answer questions and network with participants.

Zoom Invitation Details

Topic: Ghana Cambridge Policy Boot Camp (CPBC)
Time: Nov 18, 2022 09:00 AM London

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ADMINISTRATIVE MAP OF GHANA

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Appendix One: Additional Statistics

Table A1: Key Characteristics of Ghana's Health System and NHIS

Structure of Ghana Health System

- 55% of health facilities is publicly owned, 33% is privately owned, 7% is owned and operated by faith based organisations and 3% of facilities are owned by other organisations.l
- The Health System is multi-tiered with a range of different health settings:
    - Community-based Health Planning and Services (CHPS) are community health centres located in villages to deliver primary health care within rural communities, particularly to for women and children. CHPS are the first level for accessing health care. They only exist in rural areas.
    - More complex health cases are passed onto regional health centres or hospitals as required.
- Medical services free at the point of delivery - there are no co-payments. There are no limits on access, no life-time limits on specific medical services and all benefits are portable between regions.

Ghana Health Insurance System

- There are 15 health insurance funds operating in Ghana - the government owned and operated NHIS plus 13 private health insurance funds, 1 mutual health insurance fund and 19 health insurance brokers.
- All private health insurance providers must be registered with the government and only pay for services in credentialed health facilities.
- Facilities provide the service to citizens and then submit claims for payment to the NHIA for reimbursement. It is estimated that there are currently 2.4 million claims processed per month by the NHIA - mainly using paper administrative records. An overview of the flow of funds within the health system is at Figure 1.
- Multiple several studies that have demonstrated that enrollment in the NHIS is positively correlated with uptake and use of health services - and this finding is robust across regions and demographic groups.

NHIS Coverage and Scope

- The NHIS Is focussed on paying for medical services that address 95% of the disease burden afflicting Ghanains - e.g. malaria, skin disease, upper respiratory tract infections.
- The scope of what is paid for by the NHIS Is defined as both a limited positive and a negative list - i.e. it lists the health services that are *not* covered by NHIS payments.The package specifically excludes very expensive treatments - such as organ transplants, dialysis, cancer treatment (except for breast and cervical cancers, and prostate cancer which is currently under active consideration for inclusion). There are no preventative health care provisions within the NHIS, except for some vaccines and malnutrition supplementation, and only 20% of its resources is spent on primary health care**.**
- Legally, all citizens must be enrolled in a health insurance scheme - either the NHIS or a private equivalent. However this is not enforced and participation in health insurance is patchy:
    - Approximately two-thirds (68.6%) of the population have health insurance coverage with higher coverage for females (72.6%) than males (64.5%).
    - Overall the number of people enrolling in the NHIS has increased in the 5 years to 2021 - reaching 54.4% nationally up from just 35.6% in 2017.
    - The coverage in each region varies significantly. Some regions such as Ahafo, Upper East, Upper West and Bono are recording NHIS enrollment rates of over 70%. Conversely, some regions are recording relatively low rates including Greater Accra (42.7%), Oit (38%), and Central (44.2%).

Revenue

Funding for public health facilites is summarised in Figure 1. Health facilities recieve budget transfers as well as service fees from the NHIS. However, budget funding is reducing over time and does not meet health sector needs.

The NHIS receives revenue through the following sources:

- A small surcharge (2.5%) on VAT charged on all goods and services is directed towards the NHIS - this is the largest source of funding and comprises about 70% of NHIS funding.
- Wage workers are charged a social security tax - which makes up 23% of NHIS funds.
- Informal workers - those working in the informal economic sector - are able to voluntarily pay premiums

to become members of the NHIS - this comprises 5% of funds. Citizens over 70 or under 18, citizens who are classed as 'poor' and pregnant women are exempt from paying premiums.

- Miscellaneous returns on fund investment delivers around 2% of funds.

Leading Causes of Morbidity
Malaria is the top cause of all morbidity cases in Ghana (21%) but nutrition related diseases are also prevelant including: diarrhoea (4.7%), anaemia (4.6%), intestinal worms (3.1%), hypertension (2.1%). However, immunisation rates for children under 5 has reached 99.4% during 2021.

Table 2A: Key Nutrition and Public Health statistics:

Indicator	Female	Male	Overall
Prevalence of food insecurity			11.7% (3.6 million)
Achieving minimum dietary diversity:	60% (15-49 age group)		17% (children)
Prevalence of undernourishment (%)	11	14.1	12.6
Prevalence of malnutrition among children under 5 years of age, by type (wasting and overweight) (% wasting)	5.9	7.8	6.8
Prevalence of stunting among children under 5 years of age (%)	15.6	19.5	17.5
Prevalence of malnutrition among children under 5 years of age, by type (wasting and overweight) (% overweight)	1.3	1.5	1.4
Prevalence of anaemia of reproductive age (%)	42%	NA	NA
Prevalence of anaemia in children aged 6-59 Months	66% Nationally, 74% in Upper East and Upper West Regions, 82% in the Northern Region.		
Provenance of breastfed children 6-23 months receiving a minimum acceptable diet			14%*
Access to drinking water in householders			23%
Rural household access to improved sanitation toilet facilities			45%

Source: Ministry of Health GOG except for *Source: USAID, 2021. How has Ghana interpreted stunting…. Stunting also refers to children suffering from severe acute malnutrition - so the actual incidence of stunting may be smaller.