## Fiscal INCentives for Health improvement: repurposing consumption taxes on food (FINCH)

### Study Management Group

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#### Sponsor

Imperial College London is the main research Sponsor for this study. For further information regarding the sponsorship conditions, please contact <u>the Head of Research Governance and</u> <u>Integrity</u>.

This protocol describes the Fiscal INCentives for Health improvement: repurposing consumption taxes on food (FINCH) study and provides information about procedures for entering participants. Every care was taken in its drafting, but corrections or amendments may be necessary. These will be circulated to investigators in the study. Problems relating to this study should be referred, in the first instance, to the Principal Investigator.

This study will adhere to the principles outlined in the Data Protection Act 2018 and General Data Protection Regulations (Europe) and other regulatory requirements as appropriate.

### TABLE OF CONTENTS

	INT 1.1 1.2	RODUCTION Background Study Rationale		<b>3</b> 3 5
2.	STL	IDY OBJECTIVES		5
3.	STL	JDY DESIGN		5
4.	<b>SEC</b> 4.1	CONDARY DATA Database		<b>6</b> 6
5.	REC	GULATORY ISSUES		6
	5.1	Ethics approval		6
!	5.2	Consent		6
!	5.3	Confidentiality		6
	5.4	Funding		6
	5.5	Audits		7
6.	STUDY MANAGEMENT		7	
7.	· PUBLICATION POLICY			7
8.	REF	ERENCES		7

### 1.1 Background

Fiscal systems are designed to meet policy goals of societal interest, such as distributional equity, economic productivity, technological innovation, environmental sustainability, health and wellbeing. Consumption taxes occupy a central place in tax systems worldwide and play a key role in the pursuit of some of the above goals. Taxes on goods and services (e.g., value added taxes, VAT) generate about one third of all tax revenues in the UK. Excise taxes, targeted at specific products, represent a small and decreasing share of tax revenues (8.2% in 2008, 6.7% in 2019), while VAT revenues have been increasing as a proportion of all tax revenues, especially after the 2008 financial crisis.

Consumption taxes can provide effective incentives for health improvement, as demonstrated by taxes on tobacco and alcohol products and on sugar-sweetened beverages (SSBs) applied in the UK and in many other countries. The rationale for these taxes, however, has long been dominated by revenue-raising and externality-control goals, with a health rationale taking centre stage only in recent years, as the principle of tackling 'internalities' (harms to one's future self) has increasingly become accepted as an additional goal of taxation.

In the case of food consumption, fiscal policies have traditionally focused on addressing food insecurity and the sustainability of national food systems, mainly through subsidies to production and consumption. Health improvement has become a prominent goal in the past ten years, with the adoption of taxes on SSBs and on some energy-dense and nutrient-poor foods (e.g., snacks) in a rapidly increasing number of countries.

The UK has adopted a very successful, but limited, tax on SSBs, the Soft Drinks Industry Levy (SDIL) in 2016. The success of the SDIL suggests that there is scope for a broader use of fiscal levers to incentivise consumers and food manufacturers towards healthier food consumption and production, and possibly towards other socially desirable goals, such as environmental sustainability. In line with this, the recently published National Food Strategy contains a recommendation for a broadly based tax on sugar and salt (not a government strategy for the time being) expected to achieve a reduction of sugar intake between 4g and 10g per person per day, and a salt reduction between 0.2g and 0.6g per person per day. These dietary impacts have been estimated to translate into quality-adjusted life expectancy gains monetarily valued at up to £62bn in the UK.

However, a broader use of fiscal incentives on food and non-alcoholic beverages (FNABs) should not translate into a significant increase in the overall tax burden, as this would conflict with other societal goals. Rather, the government should consider a repurposing of existing consumption taxes on FNABs, which currently represent around 9% of UK households' expenditure on those items, more than 60 times the incidence of the SDIL. While current consumption taxes on FNABs are well aligned with certain fiscal policy objectives (e.g., distributional equity) they are not well aligned with health improvement goals. Examples include the application of VAT to bottled water (which may help to contain the use of plastic bottles but limits the potential for water to be a substitute for SSBs), or the taxation of foods consumed out of home at the same VAT rate regardless of their nutrient profile (whether a salad is consumed at a restaurant or a hamburger). The latter feature is especially undesirable because VAT is an ad-valorem tax, which provides incentives for 'trading down', i.e., for the purchase of cheaper foods that may be of a lower nutritional quality.

As evidence mounts that certain patterns of consumption are fuelling major societal challenges, including public health issues such as the non-communicable disease (NCD) epidemic, the principle that taxes can be used in ways previously viewed as potentially 'distortionary' is gaining acceptance. The use of taxes to create incentives for people to change their consumption patterns has polarised views along ideological lines, but the fiscal policies adopted by an increasing number of governments to foster environmental sustainability and health, are a sign that support is growing for a new use of taxation. This opens major opportunities for repurposing existing consumption taxes, allowing a greater role for targeted levies such as excise taxes on specific categories of products, and for rate differentiation of general consumption taxes such as VAT in line with the pursuit of societal goals.

Fiscal policies applied to FNABs hold great potential for improving the diet and health of children and adults. Several systematic reviews have shown that taxes on SSBs are effective and reduce purchases of taxed beverages in a similar proportion to the price increase (i.e., consumers have a price elasticity of around 1). However, existing taxes on FNABs are typically small, and even in the few countries where they are applied to more than SSBs the range of taxed FNABs is narrow, therefore the impact on overall dietary intakes is relatively small. Empirical studies have shown limited or no impacts on BMI and other downstream outcomes, partly because the long-term nature of these outcomes makes it difficult to observe them in unconfounded empirical studies. In addition, while existing health taxes have been shown to be effective in reducing the consumption of taxed products, their impacts on consumers' overall diets are uncertain because little is known about the substitutions triggered by health taxes. This makes, for instance, the setting of an appropriate tax base a very challenging step in tax design, and the heterogeneity of tax bases used in different countries for certain taxes (e.g., inclusion or exclusion of artificially sweetened beverages from the tax base of beverage taxes) is a demonstration of the difficulties involved in understanding the patterns and impacts of potential substitutions.

In the UK, VAT rate differentiation is used widely, mostly aimed at equity objectives. The introduction of the SDIL is an instance of rate differentiation in the direction of health improvement. An EU study identified several instances in which VAT rate differentiation is applied to incentivise the consumption of products with a reduced impact on the environment. However, the use of rate differentiation to influence consumption towards health and environmental sustainability goals remains limited to date.

Nutrient profiling models (NPMs) are now widely used in nutrition-related policies. Examples include the UK NPM and its modified version used to build the Nutri-Score (FSAm-NPS), or the Health Star Rating system. NPMs can be used to measure the quality of foods in agreement with dietary guidelines or to assess the quality of dietary intakes. Imperial College's nutrition science team, led by Prof. Frost, has established a link between the quality of dietary intakes, based on the UK NPM, and metabolic risk factors for CVD and diabetes. A dietary score derived from the FSAm-NPS has been shown to be linked to all-cause mortality as well as disease-specific health outcomes. Lower-quality diets were found to be associated with an increased risk of CVD, cancer, obesity, metabolic syndrome or asthma. A one-point increase in the score (on a scale from -15 to 40) was found to be associated with a 16% increase in obesity risk (in men), an 8% to 12% increase in CVD risk and an 8% increase in all-type cancer risk.

Although a substantial body of evidence has linked food prices with diet quality, the detailed statistical relationship between dietary nutrient profiling scores and food prices is yet to be established.

### 1.2 Study Rationale

The central research question in FINCH is whether indirect taxes on food and non-alcoholic beverages (FNABs) can be repurposed and restructured to create incentives for healthy food consumption, without increasing the tax burden on households and without adverse distributional impacts relative to the current taxation system.

## 2. STUDY OBJECTIVES

Building on a collaboration with Public Health England (PHE) and leveraging inputs from a wide range of stakeholders, the FINCH project aims at:

a. Developing a new research infrastructure for the ex-ante analysis of the impacts of FNAB fiscal policy scenarios, in the form of unique data and policy modelling resources that will be made available for public use;

b. Undertaking a systematic review of price elasticity data and new analysis of the relationship between food prices, consumer behaviour and diet quality, based on LCF data;

c. Designing and estimating the impacts of alternative FNAB fiscal policy scenarios on: (i) household FNAB expenditure and disposable income; (ii) individual dietary intakes; (iii) diet-related morbidity, mortality and quality-adjusted life expectancy; and, (iv) indirect tax revenues, tax administration and compliance costs.

## **3. STUDY DESIGN**

The project plan is structured into five Work Streams (WSs), including an overarching Patient and Public Involvement (PPI), stakeholder engagement and dissemination WS, along with four research WSs closely reflecting individual objectives of the project. Over a period of three years, the project team will engage with relevant stakeholders, including the general public through hosting in-person events; consolidate the research infrastructure required to evaluate fiscal policy scenarios by statistically matching the Living Costs and Food survey (LCF) and the National Diet and Nutrition Survey (NDNS), and by enhancing and extending the policy simulation models UKMOD (Essex) and Health-GPS (Imperial), before making these resources available for wider use; systematically review and assess existing evidence of FNAB price elasticities in order to identify relevant price elasticity values for the design and simulation of a set of fiscal policy scenarios that would promote changes in consumer FNAB choices as well as FNAB reformulation by manufacturers; feed findings back to stakeholders and to the research community for validation and identification of potential implementation barriers.

The project will deliver new resources and analyses that are expected to stimulate further research, inform the public debate on the use of fiscal measures to incentivise healthy food consumption and production, and contribute to a radical rethink of the objectives of indirect taxation in the FNAB sector, given the detrimental health and environmental impacts of current dietary patterns in the UK.

## Imperial College London 4. SECONDARY DATA

### 4.1 Database

The project will focus on the innovative use of secondary datasets, particularly statistically matching Living Costs and Food survey (LCF) and the National Diet and Nutrition Survey (NDNS).

Access to LCF and NDNS data is provided by the UK Data Service after the submission of an appropriate application. All data collected in these surveys were from consenting participants. The Secure Access version of LCF and the End-User License version of NDNS will be required for the purposes of this project. The Secure Access LCF data is only available to accredited users and an application to UKDS will be drafted at project inception, to ensure timely access to the data. All data received for processing in the project will be stored in compliance with the relevant Data Sharing Agreement in the Big Data & Analytical Unit (BDAU), an ISO27001 compliant data storage and processing facility based at Imperial College London. Access to the datasets for researchers on the project will be subject to compliance with Imperial College and CHEPI Information Governance policies including mandatory data protection and information security training, and at no point in the project will attempts be made to reidentify individuals. CHEPI and the BDAU are also compliant with NHS Digital's Data Security and Protection Toolkit.

Limited primary data will be collected through the commissioning of questions in a YouGov consumer panel survey.

## 5. REGULATORY ISSUES

### 5.1 Ethics approval

The Principal Investigator has obtained approval from the Head of Department and [approval from the Research Governance Integrity Team (RGIT).

### 5.2 Consent

Both datasets that will be utilised in this project are made available through the UK Data Service. More information on the datasets is available here:

- <u>https://www.ons.gov.uk/peoplepopulationandcommunity/personalandhouseholdfinances/incomeandwealth/methodologies/livingcostsandfoodsurvey</u>
- <u>https://www.gov.uk/government/collections/national-diet-and-nutrition-survey</u>

The consent procedure for the YouGov survey is handled directly by YouGov.

#### 5.3 Confidentiality

Only anonymised data will be used in this project.

### 5.4 Funding

FINCH is funded by the National Institute for Health Research (NIHR), reference: NIHR133974 - Sassi

### 5.5 Audits

The study may be subject to inspection and audit by Imperial College London under their remit as sponsor and other regulatory bodies.

### 6. STUDY MANAGEMENT

The day-to-day management of the study will be co-ordinated through Prof. Franco Sassi of Imperial College London, but he will be supported by the management team at his research centre, the Centre for Health Economics & Policy Innovation (CHEPI) at Imperial College Business School.

## 7. PUBLICATION POLICY

The project will abide by the guidance set out in the NIHR Public Policy: <u>https://www.nihr.ac.uk/documents/nihr-research-outputs-and-publications-guidance/12250</u>

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