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NON-COMMUNICABLE DISEASES AND DIETARY TRANSITIONS: A COMPARATIVE STUDY OF SOUTH AFRICA AND THE UNITED KINGDOM

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ABSTRACT

Achieving SDG 3 (Good Health and Well-Being) requires ensuring healthy lives and promoting well-being for all at all ages. Target 3.4 calls for reducing by one third premature mortality from non-communicable diseases (NCDs) through prevention and treatment. NCDs—including cardiovascular disease, diabetes, cancer, and chronic respiratory disease—are the leading causes of death globally, accounting for 41 million deaths annually (71 percent of all deaths). Dietary transitions—shifts from traditional, minimally processed, plant-based diets to Western-style diets

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high in ultra-processed foods, refined sugars, unhealthy fats, and low in fiber—are a primary driver of the NCD epidemic in both high-income and low- and middle-income countries.

This study conducts a comparative analysis of non-communicable diseases and dietary transitions in South Africa and the United Kingdom, two countries with shared colonial history, different income levels, and different stages of dietary transition. The United Kingdom has undergone a complete dietary transition and has implemented strong policies including a sugar tax, reformulation programmes, front-of-pack labelling, and advertising restrictions. South Africa is experiencing a rapid dietary transition driven by trade liberalization, urbanization, supermarket expansion, and aggressive food marketing. South Africa has implemented a sugar tax and salt reduction legislation, but lags on front-of-pack labelling, advertising bans, and school food standards.

Using a qualitative comparative case study methodology, the study analyzes secondary data from government reports, international databases, peer-reviewed literature, and food industry reports over the period 1994–2025. The study concludes that dietary transition is reversible through comprehensive policy packages including fiscal policies, reformulation, labelling, marketing restrictions, school food standards, and health system strengthening. Recommendations for both countries and the international community are provided.

Keywords: Non-communicable diseases; dietary transition; South Africa; United Kingdom; SDG 3; ultra-processed foods; sugar tax; obesity

RÉSUMÉ

Atteindre l'ODD 3 (Bonne santé et bien-être) nécessite de réduire d'un tiers la mortalité prématurée due aux maladies non transmissibles (MNT). Les MNT sont la première cause de décès dans le monde (41 millions par an). Les transitions alimentaires—passage des régimes alimentaires traditionnels à base d'aliments non transformés vers des régimes riches en aliments ultra-transformés—sont un facteur déterminant de l'épidémie de MNT. Cette étude mène une analyse comparative des MNT et des transitions alimentaires en Afrique du Sud et au Royaume-Uni. Le Royaume-Uni a mis en œuvre des politiques fortes : taxe sur le sucre, étiquetage sur le devant des emballages, programmes de reformulation, interdiction des publicités pour les aliments malsains.

L'Afrique du Sud a mis en œuvre une taxe sur le sucre (2018) et une réduction du sel, mais pas d'étiquetage sur le devant des emballages, ni d'interdiction de la publicité. L'étude conclut que la transition alimentaire est réversible par des politiques globales. Des recommandations sont fournies pour les deux pays et la communauté internationale.

Mots-clés : maladies non transmissibles, transition alimentaire, Afrique du Sud, Royaume-Uni, ODD 3, aliments ultra-transformés, taxe sur le sucre, obésité

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1. INTRODUCTION

Achieving SDG 3 (Good Health and Well-Being) requires ensuring healthy lives and promoting well-being for all at all ages. Target 3.4 calls for reducing by one third premature mortality from non-communicable diseases (NCDs) through prevention and treatment, and promoting mental health and well-being.

NCDs—including cardiovascular disease, diabetes, cancer, and chronic respiratory disease—are the leading causes of death globally, accounting for 41 million deaths annually (71 percent of all deaths). Low- and middle-income countries (LMICs) bear 85 percent of premature NCD deaths (deaths before age 70). NCDs are driven by four behavioral risk factors: unhealthy diet, physical inactivity, tobacco use, and harmful alcohol use. Among these, unhealthy diet is the leading cause of NCD burden (disability-adjusted life years or DALYs).

Dietary transitions—shifts from traditional, minimally processed, plant-based diets to Western-style diets high in ultra-processed foods (UPFs), refined sugars, unhealthy fats, salt, and low in fiber—are a primary driver of the NCD epidemic. Ultra-processed foods (NOVA classification, Group 4) are industrial formulations made from substances extracted from foods (oils, fats, sugars, starches, protein isolates) or synthesized in laboratories (flavors, colors, emulsifiers, thickeners, sweeteners), with little or no whole food content. Examples include sugar-sweetened beverages

(SSBs), packaged snacks (chips, biscuits), industrial bread and pastries, breakfast cereals, reconstituted meat (chicken nuggets, viennas, polony), instant noodles, and confectionery.

UPFs are designed to be hyper-palatable (high in sugar, fat, and salt), cheap (using commodity crops such as maize, soy, wheat, sugar, and palm oil), and convenient (long shelf life, no preparation required). UPFs are associated with obesity, type 2 diabetes, cardiovascular disease, hypertension, dyslipidemia, metabolic syndrome, depression, and some cancers. The dietary transition is shaped by food systems (industrial agriculture, global commodity chains), agricultural policies (subsidies for maize, soy, wheat, sugar), trade liberalization (WTO, bilateral agreements opening markets to UPF imports), urbanization (fast food, supermarkets), food marketing (television, digital, billboards targeting children), and income inequality (healthy foods are more expensive, unhealthy foods are cheap).

This study examines two countries that offer profound and contrasting insights into NCDs and dietary transitions: South Africa and the United Kingdom.

The United Kingdom, a high-income country with a GDP per capita of $46,000 and a population of 67 million, has undergone a complete dietary transition over the past century. The transition progressed from post-World War II austerity (rationing, relatively healthy diet), to the rise of fast food in the 1970s and 1980s (McDonald's opened in 1974), to the globalization of ultra-processed foods in the 1990s and 2000s, and finally to policy action in the 2010s and 2020s. The current UK diet is high in ultra-processed foods, which account for 50 to 60 percent of calories, as well as high in sugar and saturated fat. The UK has implemented strong policies including a sugar tax (Soft Drinks Industry Levy, 2018), front-of-pack traffic light labelling, reformulation programmes (salt reduction 2003-2025), and junk food advertising restrictions (partial, with delays). The UK NCD burden remains high: obesity prevalence is 28 percent (63 percent overweight or obese), diabetes affects 6 percent of adults (3.9 million diagnosed, predominantly type 2), and hypertension affects 28 percent (14 million people).

South Africa, an upper-middle-income country with a GDP per capita of $6,500 and a population of 60 million, is experiencing a rapid dietary transition. Post-apartheid trade liberalization (1994) opened South African markets to global food corporations such as Coca-Cola, PepsiCo, Nestlé,

Mondelez, Kellogg's, KFC, and McDonald's. Supermarket expansion (Shoprite, Pick n Pay, Woolworths, Spar) increased access to ultra-processed foods in urban and rural areas. Agricultural policy shifted from subsistence farming to cash crops (maize for animal feed, sugar for sweeteners). The traditional South African diet—high in maize meal (pap porridge), sorghum, millet, beans, legumes, vegetables (imifino wild greens, morogo, pumpkin, cabbage), fermented milk (amasi, sour milk, curd), and meat occasionally—has been displaced by ultra-processed foods. These include sugar-sweetened beverages (South Africa is the largest consumer of SSBs in Africa, with 2.5 billion litres per year; 95 percent of households purchase them, and 50 percent of children consume them daily), salty snacks (chips such as Simba and Lays; processed meats such as viennas, polony, Russians, bacon, sausages), and fast food (KFC with over 1,000 outlets, McDonald's, Burger King, Nando's, Domino's, Debonairs).

The NCD burden in South Africa is severe: obesity affects 31 percent of women and 15 percent of men, with 70 percent of women overweight or obese (highest in Africa); diabetes affects 4.6 million people (12 percent of adults, half undiagnosed); hypertension affects 46 percent of adults (9 million people); and there are high rates of cardiovascular disease (stroke, heart attack) and cancers (breast, cervical, prostate, colorectal, lung). South Africa has implemented some policies: the Health Promotion Levy (sugar tax, 2018, an 11 percent tax on sugar content of SSBs) and salt reduction legislation (2013, 2016, mandatory maximum sodium levels). However, implementation gaps remain: the sugar tax has loopholes (100 percent fruit juice and milk-based drinks are exempt), front-of-pack labelling has been proposed but not implemented due to industry resistance, junk food advertising bans are absent (only self-regulation), and school food standards are incomplete (the National School Nutrition Programme provides meals, but vending machines selling UPFs are still present).

The contrast between South Africa and the United Kingdom illuminates critical questions for NCDs, dietary transitions, and SDG 3, which this study addresses.

2. LITERATURE REVIEW

The literature on NCDs and dietary transitions spans nutrition epidemiology, public health, food policy, and political economy.

2.1 Ultra-Processed Foods and Health

The NOVA classification (Monteiro et al., 2019) defines ultra-processed foods and documents their health harms. The INFORMAS framework (Swinburn et al., 2013) provides indicators for monitoring food environments.

2.2 UK Policy Evaluations

The UK sugar tax evaluation (Rogers et al., 2022; Pell et al., 2021) shows significant sugar reduction. The UK salt reduction programme (He et al., 2019) shows cardiovascular benefits, with 20,000 deaths prevented.

2.3 South African Dietary Transition

The literature on South Africa's dietary transition (Igumbor et al., 2012; Oni et al., 2012; Temple & Steyn, 2016; Stacey et al., 2017; Frank et al., 2014) documents rising NCDs, dietary shifts, and policy responses.

2.4 Comparative Studies

Comparative studies of South Africa and the United Kingdom on NCDs and dietary transitions are limited. Most studies focus on either high-income or low- and middle-income countries separately. This study fills that gap by providing a structured comparison of South Africa and the UK.

3. RESEARCH QUESTIONS

This study addresses the following research questions:

1. What are the trends in dietary transitions and NCD burden in South Africa and the United Kingdom from 1994 to 2025?
2. What policies have been implemented in each country, including sugar tax, salt reduction, front-of-pack labelling, advertising restrictions, and school food standards?
3. What are the outcomes of these policies in terms of sugar consumption, salt intake, obesity trends, diabetes prevalence, and cardiovascular mortality?

4. METHODOLOGY

This study employs a qualitative comparative case study methodology to examine NCDs and dietary transitions in South Africa and the United Kingdom.

South Africa and the United Kingdom were selected as cases that offer meaningful comparison. Both countries have strong historical ties (colonial, Commonwealth), share the English language, have common law systems, and have Westminster parliamentary systems. However, they differ in income level (the UK is high-income, South Africa is upper-middle-income), stage of dietary transition (the UK is advanced, South Africa is accelerating), policy implementation strength (the UK is stronger), and industry power (industry may have stronger influence in South Africa due to weaker civil society).

The research design integrates secondary analysis of multiple data sources spanning the period 1994–2025. Government sources include: for the United Kingdom—the Department of Health and Social Care, Public Health England (now UK Health Security Agency), the Food Standards Agency, and the National Food Strategy (2021); for South Africa—the National Department of Health, SANHANES (South African National Health and Nutrition Examination Survey), and the SA NCD Alliance. International databases include WHO NCD Country Profiles, the Global Burden of Disease, the Global Dietary Database, the World Obesity Federation, and the World Bank. Peer-reviewed literature and food industry reports (the Beverage Association of South Africa, the Consumer Goods Council, and the UK Food and Drink Federation) are also analyzed.

The analytical framework examines five dimensions:

- **Dietary intake:** Ultra-processed food consumption, sugar, salt, saturated fat, fiber, and fruit and vegetable intake.
- **NCD burden:** Obesity, diabetes, hypertension, cardiovascular disease, and cancer.
- **Policies:** Sugar tax, salt reduction, front-of-pack labelling, advertising restrictions, and school food standards.
- **Outcomes:** Policy effects (sugar reduction, salt intake reduction, obesity trends).
- **Political economy:** Industry power, civil society advocacy, and government commitment.

5. RESULTS

Table 1: Comparative Summary – NCDs and Dietary Transitions

Dimension	**South Africa**	**United Kingdom**
Population (2024)	60 million	67 million
GDP per capita (USD)	$6,500 (upper-middle)	$46,000 (high-income)
Ultra-processed food (% energy)	30-40% (increasing)	50-60%
Sugar consumption (g/day, adults)	60-70g (SSB main source)	50-60g (SSB, confectionery)
Salt intake (g/day, adults)	8-9g	7.5g (down from 9.5g pre-2003)
Fruit/veg intake (portions/day)	2-3 (below WHO 5)	4-5 (below 5)
Obesity prevalence (adults)	Women 31%, Men 15% (women 70% overweight/obese)	28% (63% overweight/obese)
Diabetes prevalence (adults)	12% (4.6 million, half undiagnosed)	6% (3.9 million diagnosed, type 2)
Hypertension prevalence	46% (9 million)	28% (14 million)
Sugar tax implemented	Yes (2018, Health Promotion Levy, 11%)	Yes (2018, Soft Drinks Industry Levy, 18p/L, 24p/L)
Sugar tax outcomes	Consumption reduced 10-15%	Sugar from SSBs reduced 30%
Salt reduction policy	Yes (2013, 2016, mandatory max sodium)	Yes (2003-2025, voluntary targets)
Salt reduction outcome	Intake reduced by 10-15% (est.)	Intake reduced 20% (9.5g to 7.5g)
Front-of-pack labelling	Proposed (not implemented)	Traffic light (voluntary, widely adopted)
Junk food advertising ban	No (self-regulation)	Yes (9pm watershed for TV, proposed 2025 online)

School food standards	NSNP (meals provided, but vending machines UPFs)	Yes (mandatory, nutrition standards)
Source	SANHANES 2013-2020; SA NCD Alliance 2022; Stacey et al. 2017	NDNS 2021; Public Health England 2022; National Food Strategy 2021

Table 2: United Kingdom – NCD Prevention Policies

Element	**Description**
Soft Drinks Industry Levy (sugar tax)	Implemented April 2018. Two-tier: 18p/L for drinks with 5-8g sugar/100mL; 24p/L for >8g sugar/100mL. Exemptions: milk-based drinks (high calcium), fruit juice (no added sugar), alcohol, small producers. Outcome: total sugar sold from soft drinks reduced 30% (by 2020) due to reformulation (manufacturers reduced sugar content to avoid tax). Average sugar purchased per person per day decreased 10g. Revenue £300 million/year invested in school sports, breakfast clubs, obesity programmes. No negative impact on industry profits (reformulation cost less than tax).
Salt reduction programme	Launched 2003, voluntary reformulation targets for 80+ food categories (bread, meat products, cereals, soups, sauces, snacks). Targets set by Public Health England (PHE), monitored. Salt intake reduced from 9.5g/day (2000) to 7.5g/day (2020) – 20% reduction. Estimated 20,000 cardiovascular disease deaths prevented, 100,000 strokes prevented. Industry complied to avoid regulation.
Front-of-pack labelling (traffic light)	Recommended by Department of Health (2007, 2013). Red/amber/green for fat, saturated fat, sugar, salt. Voluntary but major retailers (Tesco, Sainsbury's, Asda, Morrisons, Co-op) adopted. Also applies to own-brand products. Food manufacturers (Nestlé, Kellogg's) initially resisted but later adopted. Evaluation: consumers understand traffic light labels, choose healthier options.
National Food Strategy (2021)	Henry Dimbleby independent review commissioned by government. 14 recommendations: reformulation (sugar, salt), extension of sugar tax to milk drinks, confectionery, biscuits; junk food advertising ban (TV 9pm watershed, online paid ads ban); mandatory front-of-pack labelling (traffic light made compulsory); sugar and salt

	reformulation targets; healthy food vouchers for low-income families (Expanding Healthy Start). Government accepted some but rejected advertising ban (delayed), mandatory labelling (voluntary remains).
Junk food advertising restrictions	TV advertising of foods high in fat, sugar, salt (HFSS) restricted during children's programmes (Ofcom 2007). Further restrictions: 9pm watershed for all HFSS ads (originally 2019, delayed to 2022, then to 2025 due to industry opposition). Online paid HFSS advertising ban (proposed 2021, delayed). Health groups (Obesity Health Alliance, British Heart Foundation) advocate for stronger restrictions.
NHS Diabetes Prevention Programme (DPP)	2016-present. Referrals from general practice for patients with non-diabetic hyperglycemia (prediabetes – HbA1c 42-47 mmol/mol). 9-month behavioural intervention (weight management, physical activity, healthy eating). Scaled to national coverage. Evaluation: 37% reduction in risk of developing type 2 diabetes.
School food standards	Mandatory standards (2015). Specify: no confectionery, chocolate, sweets; no sugary drinks (allowed only as treats); deep-fried foods limited; fruits/vegetables required; whole grains preferred. Implementation monitored by Ofsted.
Challenges	Inequalities persist: obesity prevalence 35% most deprived quintile vs 20% least deprived. Food deserts in poor neighbourhoods. Industry lobbying delays advertising restrictions. Voluntary front-of-pack labelling not universal (some smaller manufacturers don't comply). Sugar tax exemptions (milk drinks, juice) create loopholes.

Table 3: South Africa – NCD Prevention Policies

Element	**Description**
Health Promotion Levy (sugar tax)	Implemented April 2018. Tax rate 11% on sugar content of SSBs (2.1 cents per gram sugar). Exemptions: 100% fruit juice (no added sugar), milk-based drinks (flavoured milk, maas, buttermilk), small producers (less than 10,000L/year). Tax revenue ~ZAR 4 billion/year (2022). Evaluation (Stacey et al., 2017; The Lancet 2019): sugar consumption reduced 10-15% (reformulation + reduced purchases). Industry response: reformulated some brands (Coca-Cola reduced sugar in Fanta, Sprite; PepsiCo introduced no-sugar

	variants). Limitations: loopholes (fruit juice consumption increased 5%, milk drinks increased); informal sector not taxed (spaza shops, street vendors sell non-compliant products).
Salt reduction legislation	Regulation R.214 (2013), R.836 (2016). Mandatory maximum sodium levels in 13 food categories: bread (260mg/100g), margarine, soup, gravy, processed meat snacks (viennas, polony, Russians), breakfast cereals, chips, stocks. Enforcement: Department of Health inspections (weak due to capacity). Evaluation (Charlton et al., 2015, 2018): estimated salt intake reduced 10-15% (from 9g/day to 8g/day). However, still above WHO recommended 5g/day.
Front-of-pack labelling (proposed)	Department of Health proposed warning label (Chile-style black octagon) for foods high in sugar, saturated fat, sodium (2018, 2022, 2023). Industry opposition: Consumer Goods Council, BESA, Food Industry Council lobby against, threaten legal challenge, argue "voluntary better." Delayed; not implemented as of 2025.
Junk food advertising	No statutory restrictions. Self-regulation: Advertising Standards Authority of South Africa (ASA) code restricts advertising to children (must not encourage unhealthy habits). Weak enforcement; digital advertising (social media, influencers) largely unregulated. Children exposed to targeted ads for sugary cereals, confectionery, fast food.
School food environment	National School Nutrition Programme (NSNP) reaches 9 million children. Provides meals (maize-soy porridge, beans, vegetables, fruit, milk). However, many schools have tuck shops and vending machines selling sugary drinks, chips, sweets, processed meats. No national school food standards (only NSNP guidelines for meals, not for overall environment).
NCD surveillance	SANHANES (2013, 2020) – nutrition surveys. South African NCD Alliance (2009-present). WHO STEPS survey (2017). But data gaps: no national food consumption survey since 2005; no salt intake biomarker survey (urinary sodium) repeated.
Challenges	Industry power: BESA, Consumer Goods Council, Food Industry Council lobby strongly against policies (front-of-pack labelling, advertising ban, sugar tax extension). Government fragmentation: NCD coordination across Health, Trade, Industry, Agriculture, Finance weak. Implementation gaps: sugar tax loopholes, salt enforcement

	weak, front-of-pack delayed. Inequalities: NCD burden highest in poorest populations (Black African, Coloured, low-income).

Table 4: Comparative Policy Outcomes

Policy	**UK Outcome**	**South Africa Outcome**
Sugar tax	Sugar from SSBs reduced 30%; average sugar purchased/person/day down 10g	Sugar consumption reduced 10-15%; but fruit juice consumption increased (loophole)
Salt reduction	Intake reduced 20% (9.5g to 7.5g), 20,000 CVD deaths prevented	Intake reduced 10-15% (9g to 8g); still above WHO target (5g)
Front-of-pack labelling	Traffic light widely adopted (voluntary), consumers understand	Not implemented; proposed warning label delayed
Advertising ban	TV restrictions (children's channels), 9pm watershed delayed to 2025	No statutory ban; self-regulation weak
School food	Mandatory standards; no confectionery/sugary drinks	NSNP meals provided but tuck shops/vending machines sell UPFs; no standards
Obesity trend	Stabilized (28%) but at high level; inequalities persist	Increasing rapidly (31% women, 15% men)

6. DISCUSSION OF RESULTS

6.1. Explaining the United Kingdom's Stronger Policy Implementation

The United Kingdom has implemented stronger NCD prevention policies than South Africa due to several factors:

- **Strong civil society advocacy:** Groups such as the Obesity Health Alliance, the British Heart Foundation, Cancer Research UK, Action on Sugar, and Action on Salt unite health, academic, and consumer organizations. They have robust media campaigns, parliamentary lobbying, and legal challenge preparation.
- **Political will:** Both Conservative and Labour governments have supported the sugar tax and salt reduction. The Conservative-led government introduced the sugar tax in 2016 under David Cameron and George Osborne, despite industry lobbying.
- **Evidence base:** The UK salt reduction programme (2003-2020) produced peer-reviewed evidence of health benefits (He et al., 2019) before the sugar tax was introduced, creating a successful precedent.
- **Legal structure:** The UK has strong public health legal authority under the Public Health Act 1984, the Health Act 2006, and the Health and Social Care Act 2012, enabling food regulation. The Food Standards Agency (FSA) and Public Health England (now the UK Health Security Agency) have strong scientific capacity.

However, industry power remains strong: the advertising ban has been delayed, the online ban has not been implemented, and voluntary labelling remains not mandatory.

South Africa's weaker implementation reflects weaker civil society (the SA NCD Alliance has less funding, capacity, and media influence than UK equivalents), weaker government coordination (fragmentation across departments), stronger industry influence (BESA and the Consumer Goods Council lobby effectively and threaten litigation), and competing health priorities (HIV/AIDS, TB, and maternal-child health dominate the health agenda, with NCDs a lower priority).

6.2. Sugar Tax: UK Success, South Africa Partial Success

Both countries implemented a sugar tax in 2018. The UK sugar tax (tiered, 18p and 24p per litre) led to reformulation, with manufacturers reducing sugar to avoid the higher tier. This resulted in a 30 percent reduction in sugar from soft drinks and a reduction of 10 grams per person per day. The South Africa sugar tax (11 percent ad valorem on sugar content) led to a 10 to 15 percent reduction, which is less than the UK for several reasons: the tax rate is lower (11 percent compared to the UK's 18-24p per litre, which is equivalent to 20-25 percent of the retail price), exemptions are

larger (fruit juice and milk drinks are exempt), and the informal sector is not taxed (street vendors and spaza shops sell untaxed products).

South Africa could strengthen its sugar tax by increasing the rate to 20 percent, closing exemptions (fruit juice and milk drinks), and extending it to the informal sector through registration and enforcement. The UK could extend its sugar tax to milk drinks (flavoured milk, milkshakes), confectionery, biscuits, and baked goods, as recommended by the National Food Strategy.

6.3. Salt Reduction: Both Countries Reduced Intake

The UK's voluntary salt reduction programme reduced intake by 20 percent (from 9.5g to 7.5g) and prevented 20,000 cardiovascular disease deaths. South Africa's mandatory salt reduction legislation reduced intake by 10 to 15 percent (from 9g to 8g). South Africa's mandatory approach is stronger on paper, but the UK's voluntary approach succeeded due to strong monitoring, public reporting of industry compliance (naming and shaming), and the threat of regulation.

Both countries need to reduce intake further to reach the WHO target of 5 grams per day. South Africa could expand sodium maxima to more categories (cheese, butter, sauces) and strengthen enforcement through more inspections and fines. The UK could reintroduce mandatory targets, as industry compliance is slipping.

6.4. Front-of-Pack Labelling: UK Voluntary, South Africa Delayed

The UK's traffic light labelling is voluntary but widely adopted by major retailers. Consumers understand it and choose healthier options. However, it is not universal and is not mandated for out-of-home settings (restaurants, fast food). South Africa has proposed a warning label (Chile-style black octagon) but has not implemented it due to industry resistance.

Evidence shows that warning labels used in Chile, Mexico, Peru, Uruguay, and Israel are more effective than traffic light labels at reducing purchases of products high in sugar, salt, and saturated fat. South Africa should implement a mandatory warning label with phased implementation for small producers. The UK should mandate traffic light labelling (make it compulsory) and consider adopting warning labels if voluntary measures are not universal.

6.5. Advertising Restrictions: UK Delayed, South Africa Absent

The UK has partial restrictions (no HFSS advertisements during children's programmes), but the 9pm watershed (proposed in 2019, then 2022, now 2025) has been delayed due to industry lobbying. The online advertising ban (proposed in 2021) has not been implemented. South Africa has no statutory restrictions; self-regulation is weak (the ASA code is unenforced, and digital advertising is unregulated).

Evidence shows that advertising bans reduce children's exposure to HFSS advertisements and reduce consumption. Both countries need comprehensive advertising restrictions: a 9pm watershed for TV, a paid online advertising ban for all platforms (social media, search engines, gaming, streaming), restrictions on packaging (child-friendly cartoons, toys), and restrictions on in-store placement (checkout, end-of-aisle).

6.6. School Food Environment: UK Stronger

The UK has mandatory school food standards that prohibit confectionery and sugary drinks, limit deep-fried foods, and require fruits and vegetables. South Africa's National School Nutrition Programme provides healthy meals (maize-soy, beans, vegetables, fruit) but does not regulate the overall school food environment. Tuck shops, vending machines, fundraising bake sales, and event sales often sell ultra-processed foods.

South Africa needs comprehensive school food standards covering all food available on campus, including meals, tuck shops, vending machines, and events. The UK needs to strengthen enforcement, as some schools remain non-compliant.

6.7. Transferability: What South Africa Can Learn from the UK and What the UK Can Learn from South Africa

South Africa can learn from the United Kingdom in several areas:

- **Strengthen the sugar tax:** Adopt a tiered rate structure, increase the rate, and close loopholes (fruit juice, milk drinks).

- **Implement front-of-pack labelling:** Adopt a mandatory warning label (Chile-style black octagon).
- **Adopt advertising restrictions:** Implement a 9pm watershed for TV and a ban on online paid advertising.
- **Strengthen civil society advocacy:** Provide funding for the SA NCD Alliance, media training, and legal support.

The United Kingdom can learn from South Africa in several areas:

- **Mandatory salt reduction targets:** South Africa's mandatory approach could be adopted in the UK, as voluntary compliance is slipping.
- **Accelerate the advertising ban:** Learn from South Africa's urgency (though South Africa has no ban, the UK's delay shows industry power).
- **School food environment:** South Africa's NSNP reaches 9 million children with healthy meals. The UK could expand school breakfast clubs and holiday food programmes.
- **Addressing inequalities:** South Africa's extreme inequality could inform UK policies on food poverty, including subsidies and vouchers.

6.8. Implications for SDG 3

NCDs and dietary transitions are central to SDG Target 3.4 (reduce premature NCD mortality). The United Kingdom demonstrates that comprehensive policy packages including a sugar tax, salt reduction, front-of-pack labelling, advertising restrictions, and school food standards can reduce NCD risk factor exposure and prevent deaths, and that such policies are politically feasible despite industry opposition.

South Africa demonstrates that partial policy implementation (a sugar tax with loopholes, salt reduction with weak enforcement, no front-of-pack labelling, no advertising ban) reduces but does not fully address the NCD epidemic.

The international community (WHO, World Bank, FAO, UNSCN) should support low- and middle-income countries to implement comprehensive NCD prevention policies, hold the food industry accountable (UN high-level meeting on NCDs, 2025), and fund civil society advocacy

(SA NCD Alliance, Global Health Advocacy Incubator). The WHO Global Action Plan for the Prevention and Control of NCDs (2013-2030) targets should be enforced.

7. CONCLUSION

This comparative analysis reveals that non-communicable diseases and dietary transitions in South Africa and the United Kingdom are driven by ultra-processed food consumption. Both countries face rising obesity, diabetes, hypertension, and cardiovascular disease.

The United Kingdom has implemented stronger policies: a sugar tax (30 percent sugar reduction from SSBs), salt reduction (20 percent intake reduction, 20,000 CVD deaths prevented), front-of-pack traffic light labelling (voluntary but widely adopted), partial advertising restrictions (children's programmes), and mandatory school food standards. However, implementation gaps remain: the advertising 9pm watershed has been delayed to 2025, the online advertising ban has not been implemented, voluntary labelling is not universal, and inequalities persist.

South Africa has implemented a sugar tax (Health Promotion Levy, 2018, 11 percent tax, with loopholes for fruit juice and milk drinks and the informal sector), and salt reduction (mandatory sodium maxima, 10 to 15 percent reduction, weak enforcement). However, front-of-pack labelling has not been implemented (proposed but delayed due to industry lobbying), junk food advertising bans are absent (only self-regulation), and school food standards are incomplete (NSNP meals are provided but vending machines sell UPFs). The NCD burden continues to rise in South Africa (obesity in women 31 percent, diabetes 12 percent, hypertension 46 percent) while stabilizing in the UK at a high level (obesity 28 percent).

Several cross-cutting insights emerge:

1. Sugar taxes work but must be designed with high rates, tiered structures, no loopholes (fruit juice, milk drinks), and extension to the informal sector.
2. Salt reduction saves lives (20,000 CVD deaths prevented in the UK). Mandatory targets with strong enforcement are effective.
3. Front-of-pack labelling (warning labels, traffic light) informs consumers and incentivizes reformulation. Warning labels (Chile-style) are more effective than traffic light labels.

4. Advertising restrictions (9pm watershed, online ban) reduce children's exposure. Industry resistance is fierce but can be overcome.
5. School food standards are essential for creating healthy food environments.
6. Industry power (lobbying, legal threats) is the primary barrier to policy implementation in both countries, but it is stronger in South Africa due to weaker civil society.

For South Africa, priorities include: strengthening the sugar tax (increase the rate to 20 percent, close loopholes for fruit juice and milk drinks, extend to the informal sector); implementing front-of-pack warning labelling (Chile-style black octagon); banning junk food advertising to children (statutory ban, 9pm watershed, online ban, no self-regulation); introducing school food standards (mandatory, covering all food on campus including meals, tuck shops, vending machines, and events); expanding salt reduction to more categories and strengthening enforcement; and strengthening primary care NCD management (hypertension and diabetes screening and treatment).

For the United Kingdom, priorities include: extending the sugar tax to milk drinks, confectionery, biscuits, and baked goods as recommended by the National Food Strategy; implementing the 9pm watershed for junk food TV advertising without further delay; banning online paid junk food advertising; mandating front-of-pack labelling (making traffic light compulsory); extending reformulation to sugars in yogurts, cereals, and ready meals; and addressing inequalities through subsidies for healthy foods in deprived areas, expansion of Healthy Start vouchers, and addressing food deserts.

For the international community, the lessons are clear. Dietary transitions are reversible through comprehensive policy packages. Sugar taxes, salt reduction, front-of-pack warning labels, advertising bans, and school food standards work. Industry opposition is predictable (lobbying, legal threats, front groups) but can be overcome with civil society mobilization, political will, and evidence-based advocacy. WHO NCD targets (2013-2030) must be enforced.

The ultimate measure of success for NCD prevention policy is not sugar tax revenue or labelling compliance, but whether a child in Soweto or a child in Manchester grows up healthy, without obesity, diabetes, or avoidable cancer.

8. LIMITS OF THE STUDY

This study has several limitations:

1. Reliance on secondary data (government reports, WHO, Global Burden of Disease, peer-reviewed literature) means the analysis is constrained by data availability, quality, and comparability. South Africa's dietary survey data are less frequent and less granular than the UK's data.
2. The comparative case study design cannot establish causality as rigorously as experimental or quasi-experimental methods.
3. The study does not include primary data collection (interviews with policymakers, industry representatives, or civil society advocates), which would provide richer insights into political economy dynamics.
4. The study period (1994–2025) captures post-apartheid South Africa and late-20th-century UK, but longer-term historical dietary transitions are not fully explored.
5. The focus on national-level systems obscures subnational variation within both countries, including South Africa's provinces and racial groups, and the UK's nations (England, Scotland, Wales, Northern Ireland), regions, and deprivation deciles.
6. The study does not quantify the cost-effectiveness of policies (for example, the sugar tax cost per DALY averted).

Despite these limitations, the comparative analysis provides valuable insights for policy and future research.

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10. AUTHOR CONTRIBUTIONS

SANGOKO MODIMEA ELIE conceived the study, designed the methodology, conducted the literature review and document analysis, synthesized findings, and drafted the complete manuscript.

11. COMPETING INTERESTS

The author declares that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential competing interest.

12. FUNDING INFORMATION

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13. DATA AVAILABILITY

All sources are publicly available documents cited in the bibliography and accessible through the referenced publications and organizations (WHO NCD Country Profiles, Global Burden of Disease, SANHANES, NDNS, Public Health England).

14. DISCLAIMER

The views expressed in this article are solely those of the author and do not necessarily reflect the views of any institution or organization with which the author may be affiliated. The analysis is provided for scholarly purposes and should not be construed as policy guidance or programmatic advice.

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