P-ISSN: 2987-8071 | E-ISSN: 2987-8063 | DOI: https://doi.org/10.53955/jsderi.v2i2.31

http://journal.contrariusactus.com/index.php/JSDERI/index



| Research Article |



The Effectiveness of Accelerating Stunting Reduction Policy

Jenifer Sevilla* 1, Asianto Nugroho 1, Arida Turymshayeva 2

¹ Faculty of Law, Universitas Sebelas Maret, Surakarta, Indonesia

Received: November 13, 2023/ Revised: April 23, 2024/ Accepted: May 22, 2024.

Abstract: Indonesia has implemented various policies to accelerate stunting reduction, however whether these policies have effectively reduced stunting, because the prevalence of stunting is still high, at 30.8%. The government's involvement in creating and implementing stunting policies in Indonesia still needs to be effective in terms of legal substance, structure, and culture. This research employs socio-legal research methods and a comparative approach with Finland. This research shows, first, that the existing acceleration policy has yet to effectively overcome the problem of stunting in Indonesia because there is still a policy of implementing taxes on nutritious food commodities, which affects people's purchasing power. There is a need for socialization and integration of stunting policies across sectors, technical coordination between central and regional government organizations, and community participation in policy implementation. Second, comparative studies in Finland can provide new information regarding understanding health and formulating regulations for implementing taxes on unhealthy foods. Therefore, this research has the potential to enhance the prevention of stunting and provide valuable insights for the Indonesian government to formulate and implement policies.

Keywords: Accelerating; Effectiveness; Policy; Stunting



This is an open-access article under the CC-BY 4.0 license

INTRODUCTION

Accelerating the reduction in stunting rates has become a national and even international priority problem.¹ The World Health Organization targets reducing the number of children under the age of five who experience stunting by 40% by 2025, as well as a mission to end all forms of malnutrition, stunting, and wasting in children under the age of five by 2030.2 According to the data, the number of children experiencing stunting has increased from 75.2 million to 149.2 million. Thus, stunting cases in Southeast Asia increased from 24.7% to 38.5% at the start of the pandemic.³ The continued high rate of stunting threatens the quality of human resources, including the risk of morbidity and mortality, as well as an increase in hereditary

² Faculty of Law, Mukhtar Auezov South Kazakhstan University, Shymkent, Kazakhstan

^{*}Correspondence: jenifersevilla007@gmail.com

¹ Fitri Rachmillah Fadmi and others, 'Analysis of Factors Affecting the Number of Stunting and Wasting in Southeast Sulawesi Using Geographically Weighted Bivariate Generalized Poisson Regression', Journal of Law and Sustainable Development, 12.2 (2024),e2354 https://doi.org/10.55908/sdgs.v12i2.2354

² Kate Sadler and others, 'How Can Nutrition Research Better Reflect the Relationship Between Wasting and Stunting in Children? Learnings from the Wasting and Stunting Project', Journal of Nutrition, 152.12 (2022), 2645-51 https://doi.org/10.1093/jn/nxac091

³ Dil Bahadur Rahut, Raman Mishra, and Subhasis Bera, 'Geospatial and Environmental Determinants of Stunting, Wasting, and Underweight: Empirical Evidence from Rural South and Southeast Asia', Nutrition, 120 (2024), 112346 https://doi.org/10.1016/j.nut.2023.112346

<u>JSDRI</u>

diseases.⁴ In Indonesia, the prevalence of stunting is relatively high, at 30.8%.⁵ The latest data from this year's Global Nutrition Report shows that Indonesia has progressed in meeting stunting targets.⁶

The number of stunted children in Indonesia is still higher than the average for the Asian region, which is 21.8%. In this case, the government must accelerate the reduction of stunting rates related to its authority in making and implementing stunting policies at both the central and regional government levels. The parameters for the effectiveness of accelerating stunting reduction can be seen in achieving objectives and fulfilling targets of the National Medium-Term Development Plan in 2020–2024, which aims to reduce the national stunting rate by 14% in 2024.

In reality, in 2024, reaching a decline of 14% is still far from expectations. In Indonesia, fulfilling health services has become a particular priority for every regional government, as is the practice of decentralization in regional autonomy in Law Number 23 of 2014 in order to provide efficient bureaucratic services to the community. This can take the form of policy making and flexibility in preparing health programs, including handling stunting or distributing funds by regional income and expenditure budgets. In addition, the overlapping regulations regarding the application of value-added tax (VAT) for basic commodities indicate that the public's ease of access to food prices in Indonesia has not been satisfied. People's purchasing power for nutritious food is relatively low because basic necessities that are subject to value-added tax still include protein sources such as fish, squid, shrimp, and others. The application of taxes on staple foods is not appropriate, considering that the general public consumes these nutritious staple foods on a daily basis.

One of the targets of this research regarding the acceleration of stunting in Indonesia is the Sukoharjo Regency, Central Java Province. In 2020, the prevalence was 7.33% and decreased to 7.11% in 2021. Based on survey results in August 2022, the stunting rate in Sukoharjo Regency has increased to 8.10%. As in Presidential Regulation Number 72 of 2021, stunting acceleration is implemented by ministries or institutions, provincial and regional governments, district and city regional governments, village governments, and other stakeholders. In this case, the Sukoharjo Regency Regional Government has issued regulations regarding efforts to reduce stunting rates in the form of Sukoharjo Regent Regulation Number 8 of 2020.

⁴ Umi Fahmida and others, 'Problem Nutrients and Food-Based Recommendations for Pregnant Women and Under-Five Children in High-Stunting Districts in Indonesia', *Current Developments in Nutrition*, 6.5 (2022), nzac028 https://doi.org/10.1093/cdn/nzac028

⁵ Hijrawati and others, 'Use of Technology for Monitoring the Development of Nutritional Status 1000 Hpk in Stunting Prevention in Indonesia', *Gaceta Sanitaria*, 35 (2021), S231–34 https://doi.org/10.1016/j.gaceta.2021.10.028

⁶ Kathryn G. Dewey and others, 'Preventive Small-Quantity Lipid-Based Nutrient Supplements Reduce Severe Wasting and Severe Stunting among Young Children: An Individual Participant Data Meta-Analysis of Randomized Controlled Trials', *American Journal of Clinical Nutrition*, 116.5 (2022), 1314–33 https://doi.org/10.1093/ajcn/nqac232

⁷ Hatijar Hatijar, 'The Incidence of Stunting in Infants and Toddlers', *Jurnal Ilmiah Kesehatan Sandi Husada*, 12.1 (2023), 224–29 https://doi.org/10.35816/jiskh.v12i1.1019

⁸ Jean Arkedis and others, 'Can Transparency and Accountability Programs Improve Health? Experimental Evidence from Indonesia and Tanzania', *World Development*, 142 (2021), 105369 https://doi.org/10.1016/j.worlddev.2020.105369



This regent's regulation has not shown significant effectiveness; it still needs to fulfill the dimensions of legal products in terms of legal substance, structure, and culture. Firstly, the Sukoharjo Regent Regulation Number 8 of 2020 lacks the necessary legal substance to encourage a reduction in stunting rates. This regulation primarily focuses on implementing nutritional surveillance and interventions, and does not address issues related to political-economic, food, and agricultural systems. education, and community empowerment.9 Second, the legal structure demonstrates the direction in which the legal system provides ideal services through statutory regulations. In reality, the stunting prevention program has not reached its full potential. Each institution has not integrated it, and in 2021, five of the eight convergence activities outlined in Regent Regulation Number 8 of 2020 will remain unimplemented. Third, legal culture is defined as society's overall attitudes and value systems that determine the implementation of law in society. However, the Regional Government of Sukoharjo Regency's 2020 report on the implementation of stunting prevention convergence actions highlights the need for improved community involvement in advocacy, outreach, stunting campaigns, and counseling activities related to the stunting reduction acceleration program.

The previous of research show that regional governments have attempted stunting reduction strategies using a multisectoral approach through program convergence, namely the delivery of interventions carried out in a coordinated and integrated manner involving all stakeholders in accelerating stunting reduction.¹⁰ After a year of implementing the stunting program in the district, it was reduced to 38.91% or 2.18%, from the baseline of 41.09%. ¹¹ However, it is the level of planning and implementing critical nutritional interventions and the government's role in preparing children before entering family life because stunting begins when households cannot fulfill their welfare. This can be done through outreach and pre-wedding mentoring programs to provide an understanding of malnutrition.¹²

Another study found that the prevalence of double burden malnutrition is still high in Central Java, where there is a nutritional transition from increasing obesity rates. However, the prevalence of stunting is still high, with many households even showing the phenomenon of stunted children. The double burden of nutrition in rural Central Java is not necessarily caused by diet but also focuses on parents' knowledge of

⁹ Vivilia Niken Hastuti and others, 'Socio-Demographics, Dietary Diversity Score, and Nutritional Status of Children Aged 2–5 Years: A Cross-Sectional Study of Indonesian Coastal Areas', *Clinical Epidemiology and Global Health*, 27.March (2024), 101599 https://doi.org/10.1016/j.cegh.2024.101599

¹⁰ Monique Baumont and others, 'Understanding Childhood Adversity in West Sulawesi, Indonesia', *Child Abuse and Neglect*, 107.October 2019 (2020), 104533 https://doi.org/10.1016/j.chiabu.2020.104533

¹¹ Aspar Abdul Gani and others, 'The Effect of Convergent Action on Reducing Stunting Prevalence in Under-Five Children in Banggai District, Central Sulawesi, Indonesia', *Gaceta Sanitaria*, 35 (2021), \$421–24 https://doi.org/10.1016/j.gaceta.2021.10.066

¹² Sri Supadmi and others, 'Factor Related to Stunting of Children under Two Years with Working Mothers in Indonesia', *Clinical Epidemiology and Global Health*, 26.October 2023 (2024), 101538 https://doi.org/10.1016/j.cegh.2024.101538



children's health.¹³ This research needs to provide concrete steps toward implementing policies that can reduce the double burden of nutrition on mothers and children. In particular, regional governments must provide outreach and knowledge about the nutrition transition, as well as how to overcome the double burden of nutrition on households.¹⁴

The implementation of a tax system in Finland on food stuffs is to limit the consumption of products containing excess sugar and artificial sweeteners, such as confectionery, chocolate, ice cream, and non-alcoholic drinks. ¹⁵ Since the implementation of this regulation, it has been reported that there has been a decrease in the consumption of sweet foods and soft drinks in 2011 and 2014. ¹⁶ Thus, the World Health Organization has formulated the role of the state and society in developing and implementing stunting policies, economic politics, food and agricultural systems, sanitation, and environmental health facilities, education, and community empowerment. This research aims to identify the gaps in legal policies that could accelerate the reduction of stunting when implemented in the field. To identify the factors contributing to the ineffectiveness of Indonesia's stunting policies, we must first examine their substance, structure, and legal culture. In addition, consider whether Indonesia can adopt Finland's food tax policy to curb stunting.

METHOD

This socio-legal research examines the effectiveness of stunting acceleration policies in Indonesia. This research employs a comparative approach with Finland, specifically focusing on the implementation of a tax policy on foods that contain certain substances with the aim of reducing stunting and innovation in terms of strengthening health education. The data encompasses primary and secondary sources, including studies on stunting policies and relevant literature. The data collection techniques used were interview methods and document analysis. This research uses qualitative data analysis techniques consisting of three stages: data reduction, data presentation, and conclusion.

RESULT AND DISCUSSION

The Effectiveness of Accelerating Stunting Reduction Policy in Indonesia

In the dynamics of legal regulations in Indonesia, there are at least several legal foundations that underlie the handling and prevention of stunting, such as Law Number 36 of 2009 concerning Health, which regulates the implementation of efforts to improve community nutrition, including direction, objectives, and strategies

¹³ Callum Lowe and others, 'The Double Burden of Malnutrition and Dietary Patterns in Rural Central Java, Indonesia', *The Lancet Regional Health - Western Pacific*, 14 (2021), 100205 https://doi.org/10.1016/j.lanwpc.2021.100205

¹⁴ Muhammad Fikru Rizal and Eddy van Doorslaer, 'Explaining the Fall of Socioeconomic Inequality in Childhood Stunting in Indonesia', *SSM - Population Health*, 9 (2019), 100469 https://doi.org/10.1016/j.ssmph.2019.100469

¹⁵ Michele Sassano and others, 'National Taxation on Sugar-Sweetened Beverages and Its Association with Overweight, Obesity, and Diabetes', *American Journal of Clinical Nutrition*, 119.4 (2024), 990–1006 https://doi.org/10.1016/j.ajcnut.2023.12.013

¹⁶ Elisa Pineda and others, 'Review: Effectiveness and Policy Implications of Health Taxes on Foods High in Fat, Salt, and Sugar', *Food Policy*, 123.October 2022 (2024), 102599 https://doi.org/10.1016/j.foodpol.2024.102599



for strengthening community nutrition to improve quality. Individual and community nutrition.¹⁷ Apart from that, Law Number 18 of 2012 concerning Food states that the nutritional status of the community is one of the considerations in food development and requires the central and regional governments to prepare a Food Action Plan. In this case, the central and regional governments must structurally and integratedly make various efforts to prevent stunting.¹⁸

Indonesia does not yet have a legal product that specifically regulates stunting nationally, so it is still based on the Health Law and existing implementing regulations, such as Presidential Regulation Number 72 of 2021 concerning the Acceleration of Reducing Stunting.¹⁹ Apart from that, the government is also trying to create several guidelines and policies to accelerate the reduction of stunting in Indonesia, such as (1) The Food Security Agency of the Ministry of Agriculture and the Secretariat of the Food Security Council have developed the Food Security and Nutrition Strategic Policy 2020-2024. This policy was prepared as a reference for stakeholders interested in the food and nutrition sector to build cross-sector coordination to develop adequate policies, programs, and budgets as a form of increasing food security.²⁰ (2) The Coordinating Ministry for Human Development and Culture has developed a National Strategy for Accelerating Stunting Prevention for the 2018-2024 Period to safeguard the health of the next generation and Indonesian children, promoting reasonable growth and development while preventing stunting. (3) The National Movement Roadmap 2017-2019 was created by the PPG 2017 Technical Team, was created as a reference for coordination and technical implementation of handling accelerated nutrition improvements to reduce nutritional problems in 1,000 HPK.21 (4) The Ministry of Health of the Republic of Indonesia has developed guidelines for a communication strategy aimed at stunting behavior change, these guidelines are prepared to provide direction for stakeholders in creating communication strategies according to their respective regions.²²

The strategy carried out is an activity by policymakers to plan a program oriented towards the country's goals in handling stunting, the contents of which are detailed

¹⁷ Nico Gamalliel and Ahmad Fuady, 'Indonesia's New Health Law: Lessons for Democratic Health Governance and Legislation', *The Lancet Regional Health - Southeast Asia*, 23 (2024), 100390 https://doi.org/10.1016/j.lansea.2024.100390

¹⁸ Karly I. Cini and others, 'Towards Responsive Policy and Actions to Address Non-Communicable Disease Risks amongst Adolescents in Indonesia: Insights from Key Stakeholders', *The Lancet Regional Health - Southeast Asia*, 18.August (2023), 100260 https://doi.org/10.1016/j.lansea.2023.100260

¹⁹ Zuhud Rozaki, *Food Security Challenges and Opportunities in Indonesia Post COVID-19*, *Advances in Food Security and Sustainability*, 1st edn (Elsevier Inc., 2021), VI https://doi.org/10.1016/bs.af2s.2021.07.002

²⁰ Mohammad Teduh Uliniansyah and others, 'Twitter Dataset on Public Sentiments towards Biodiversity Policy in Indonesia', *Data in Brief*, 52 (2024), 109890 https://doi.org/10.1016/j.dib.2023.109890

²¹ D.S. Rivami, W. Song, and L. Weatherspoon, 'Maternal Nutrition-Related Factors Associated With Stunting And Wasting In Indonesian Children 6-23 Months Of Age', *Clinical Nutrition ESPEN*, 54 (2023), 604 https://doi.org/10.1016/j.clnesp.2022.09.430

²² Sajid Bashir Soofi and others, 'Effectiveness of Unconditional Cash Transfers Combined with Lipid-Based Nutrient Supplement and/or Behavior Change Communication to Prevent Stunting among Children in Pakistan: A Cluster Randomized Controlled Trial', *American Journal of Clinical Nutrition*, 115.2 (2022), 492–502 https://doi.org/10.1093/ajcn/nqab341



and comprehensive steps to achieve a goal.²³ The stunting policy is also included in The National Medium-Term Development Plan 2020-2024, with a target of reducing the number by 11.8%. This means that stunting prevention indicators and targets have been included as national development targets and are contained in the RPJMN as the government's priority policy this year.

Accelerating the reduction of stunting rates includes programs in the health sector, which, based on Law Number 23 of 2014 concerning Regional Government, is included as a form of implementing the principle of decentralization in regional autonomy. The health sector is included in government affairs and divided between the central, provincial, and district/city governments. The regional government's authority, apart from preparing a Food and Nutrition Action Plan every five years, is the obligation to create policies that are adapted to the direction and targets of the national stunting policy; this has been regulated in each regional regulation and is based on Presidential Regulation Number 42 of 2013 as well as Ministry of Finance Regulation Number 61/PMK.07/2019 for each village to budget and determine stunting prevention techniques.²⁴

Table 1. Prevalence of Stunting from 2020 to 2023 Sukoharjo Regency based on measurement data for February and August

No.	Data Type	2020	2021	2022
1	Number of Toddlers Measured	52.250	46.375	43.758
2	Number of Stunting Cases	4.014	3.296	3.545
3	Percentage Stunted	7,68%	7,11%	8,10%

Source: e-PPGBM Dinkes

According to Table 1, the stunting rate is expected to rise from 2021 to 2022. To see the effectiveness of legal products in accelerating the reduction of stunting in Indonesia, this research focuses on analyzing one of the regional legal products of Sukoharjo Regency, Central Java, namely Sukoharjo Regent Regulation Number 8 of 2020 concerning stunting prevention in Sukoharjo Regency. L.M. Friedman's parameters for legal success describe them in three factors: legal substance, legal structure, and legal culture, thereby demonstrating the effectiveness of the law in achieving its intended direction and purpose.

The first factor is the legal substance. Legal substance parameters determine the extent of the quality of statutory regulations; according to Anthony Allot, they must fulfill preventive, curative, and facilitative elements.²⁵ The preventive element shows

²³ Melissa Stoneham, Melinda Edmunds, and Christina Pollard, 'Local Governments' Decade of Organisational Change to Promote Child Health and Wellbeing: A Western Australian Qualitative Study', *Australian and New Zealand Journal of Public Health*, 45.4 (2021), 355–63 https://doi.org/10.1111/1753-6405.13128

²⁴ Parul Christian and others, 'Impact Evaluation of a Comprehensive Nutrition Program for Reducing Stunting in Children Aged 6-23 Months in Rural Malawi', *Journal of Nutrition*, 150.11 (2020), 3024–32 https://doi.org/10.1093/jn/nxaa236

²⁵ Bin Dong and others, 'Adolescent Health and Healthy China 2030: A Review', *Journal of Adolescent Health*, 67.5 (2020), \$24–31 https://doi.org/10.1016/j.jadohealth.2020.07.023



the fulfillment of the function of control over society, which is carried out by analyzing legal writing so that statutory regulations can be conveyed clearly and do not cause differences in interpretation.²⁶ The legal writing of statutory regulations must comply with the principles of forming statutory regulations. Sukoharjo Regent Regulation Number 8 of 2020 has a clear objective: to prevent stunting in Sukoharjo Regency, which includes implementing eight stunting prevention convergence actions.²⁷

The Regent institutionally formed this regulation, which is a derivative of the Central Java Governor's Regulation Number 34 of 2019 concerning the Acceleration of Stunting Prevention in Central Java Province. Therefore, this regulation draws its basis from the type of statutory regulations, their hierarchy, and their content. In terms of clarity, this Regent's regulation solely elucidates the general regulations, while the explanatory attachment governs the detailed activities. The release of this regent's regulation on the official website and its publication in the Sukoharjo.

Table 2. Average Daily Protein Consumption per Capita by Food Commodity Group and Expenditure Group (Grams), 2022

Food Commodity Group	Expenditure Group			Total Protein
_	40%	40%	20%	Consumption
	Bottom	Middle	Тор	
Grains	15,94	16,71	16,24	16,31
Tubers	0,25	0,31	0,45	0,31
Fish/shrimp/squid/shellfish	2,15	4,41	6,63	3,95
Meat	2,96	4,41	6,16	4,18
Egg and Milk	2,55	3,70	5,05	3,51
Vegetables	1,78	2,13	2,31	2,03
Nuts	5,74	6,94	6,98	6,47
Fruits	0,32	0,50	0,79	0,49
Oil and coconut	0,09	0,11	0,11	0,10
Drink ingredients	0,72	0,77	0,86	0,77
Spices	0,28	0,34	0,39	0,33
Other consumption	0,80	0,98	1,10	0,93
Finished food and drinks	9,98	18,40	25,26	16,40
Cigarettes and tobacco	0	0	0	0
Average Consumption	43,56	59,70	72,34	55,76

Source: Sukoharjo Regency Central Statistics Agency, data, August 19, 2023, accessed January 10, 2024.

Based on Table 2. above the level of consumption of fish and aquatic animal protein in Sukoharjo Regency is in the low category compared with the level of fish consumption in Central Java and nationally. Apart from that, it is compared with the consumption of other animal proteins, such as meat and eggs, because of the public's

²⁶ Nigel Poole, Jason Donovan, and Olaf Erenstein, 'Viewpoint: Agri-Nutrition Research: Revisiting the Contribution of Maize and Wheat to Human Nutrition and Health', *Food Policy*, 100 (2021), 101976 https://doi.org/10.1016/j.foodpol.2020.101976

²⁷ Andi Mudirah Ulya, Karita Sakharina, and Muh Hasrul, 'Human Rights Law Regulations against Stunting Patients in Indonesia', *Scholars International Journal of Law*, 4.6 (2021), 2017–19 https://doi.org/10.36348/sijlcj.2021.v04i06.002



perception that the price of fish is expensive. The Regency Regional News also aligns with the principle of openness. Furthermore, the curative element serves as the foundation for the law's ability to address societal problems. 28 Still, this Regent's Regulation has not been able to solve the problem of stunting comprehensively because no article facilitates the ease of people getting access to affordable, nutritious food, even though this is necessary to ensure the long-term success of the program, such as the still overlapping regulations regarding value-added tax on staple foods.

In addition, the overlapping regulations regarding the application of value-added tax (VAT) for basic commodities indicate that the public's ease of access to food prices in Indonesia has not been satisfied. As in Article 4A paragraph (2) letter b of the VAT Law, which states necessities that are not subject to value-added tax, such as rice, wheat, and eggs, this article does not cover protein sources such as fish, squid, shrimp, and others, so it does not include the exception of goods subject to value-added tax.²⁹ Moreover, VAT applies to nuts like soybeans and green beans, disregarding the significance of green beans for toddler nutrition. The Eastern Indonesia Region's failure to include tubers and staple foodstuffs as goods exempt from VAT is another example of discrimination in VAT regulations. 30 In fact, in 2020, the eleven commodities in this article were illegal, becoming the 14 commodities listed in the Minister of Finance Regulation Number 99/PMK.010/2020. However, the Law of the Republic of Indonesia Number 7 of the Year still needs to address the issue of applying taxes to food. This is different from Finland, which imposes a tax on foods considered unhealthy if consumed excessively. In Indonesia, nutritious food is still subject to high taxes when sold to the public. Therefore, this represents a significant barrier to expediting the reduction of stunting. To facilitate community access and purchasing power, the government should focus more on nutritious staple foods.

The final component is the facilitative element, demonstrating the legal product's capacity to achieve the goals of a statutory regulation. This regent's regulation should contain³¹ (1) Policies that support reducing stunting rates can cover the causes of stunting, such as fulfilling nutrition for pregnant and breastfeeding mothers, preventing teenage pregnancy, increasing access to clean water and sanitation, and increasing access to health services. (2) Adequate budget allocation. (3) Strong institutions. Therefore, Regent Regulation Number 8 of 2020 fails to meet the preventive element, which emphasizes the need to enhance communication and community participation in relation to laws and regulations. Although the regent's regulation satisfies the facilitative aspect by providing adequate support for its

²⁸ Eflita Meiyetriani and others, 'P24-084-23 Understanding the Spatial Predictors of Stunting Among 0–11 Months Children in Sambas District Indonesia Using Spatial Autoregressive Model', *Current Developments in Nutrition*, 7 (2023), 100372 https://doi.org/10.1016/j.cdnut.2023.100372

²⁹ Amrie Firmansyah and others, 'Political Connections, Investment Opportunity Sets, Tax Avoidance: Does Corporate Social Responsibility Disclosure in Indonesia Have a Role?', *Heliyon*, 8.8 (2022) https://doi.org/10.1016/j.heliyon.2022.e10155

³⁰ Ho Fai Chan and others, 'The Effects of Increased Monitoring on High Wealth Individuals: Evidence from a Quasi-Natural Experiment in Indonesia', *Journal of Economic Behavior and Organization*, 215 (2023), 244–67 https://doi.org/10.1016/j.jebo.2023.09.017

³¹ Digdo Sudigyo and others, 'Literature Study of Stunting Supplementation in Indonesian Utilizing Text Mining Approach', *Procedia Computer Science*, 216.2022 (2022), 722–29 https://doi.org/10.1016/j.procs.2022.12.189



implementation, its content fails to adequately address the socio-economic aspects of the community, particularly in terms of easy access to nutritious and affordable food, nor does it meet the curative aspect.

The second factor is the legal structure. Article 13 of Sukoharjo Regent Regulation Number 8 of 2020 previously regulated the coordinator of the stunting reduction program, which included both the stunting prevention coordination team and the stunting prevention working group. The Directorate General of Regional Development of the Ministry of Home Affairs, through the Monitoring Dashboard for the Implementation of 8 Integrated Stunting Reduction Intervention Convergence Actions, has found that the implementation of stunting prevention has not been optimal. This is due to the lack of stunting consultation activities and joint deliberations with stakeholders to establish synergy and planning. Stunting prevention action. Apart from that, the development of Human Development Cadres has yet to be implemented; there is no stunting data management system, stunting measurement, and publication, and the annual performance review has yet to be implemented.³²

The third factor is legal culture.³³ We assess community acceptance by examining whether elements of Regent Regulation Number 8 of 2020 conflict with local customs and customary law. There is a need for harmony with customs in society to support public acceptance of the effective implementation of legal norms. Regent's Regulation Number 8 of 2020 does not contain purely local content that brings local wisdom into implementing convergence actions to reduce stunting. However, the Central Java Governor's Regulation Number 34 of 2019 specifically guides the implementation of convergence.

Within the scope of the regent's regulations, there are no articles that touch on ethnic, religious, racial, or inter-group issues, ³⁴ so it can be concluded that the provisions regulated do not conflict with the customs and beliefs of the people of Sukoharjo Regency. By formulating these strategies, Sukoharjo Regent Regulation Number 90 of 2021, which focuses on Behavior Change Communication Strategies in Stunting Prevention, has facilitated community empowerment. We aim to increase public awareness about stunting prevention through these communication facilities. Ideally, we implement this communication strategy through online and print media, specifically tailoring the information to local issues for a specific community group.³⁵ However, the results of the interviews revealed that target communities were still unaware of the implementation of new awareness programs, which caused delays in

³² Lowe and others.

³³ Nega Mulu and others, 'Determinants of Stunting and Wasting in Street Children in Northwest Ethiopia: A Community-Based Study', *Nutrition*, 94 (2022) https://doi.org/10.1016/j.nut.2021.111532 ³⁴ Rahut, Mishra, and Bera.

³⁵ Luis Huicho and others, 'Drivers of Stunting Reduction in Peru: A Country Case Study', *American Journal of Clinical Nutrition*, 112 (2020), 816S-829S https://doi.org/10.1093/ajcn/nqaa164



the delivery of nutritional surveillance assistance for the prevention and management of stunting.³⁶

Indonesia's stunting policy is made up of different regulations. In this case, Sukoharjo Regulation Number 8 of 2020 doesn't fully meet the legal substance factors because it still lacks some parts that are supposed to prevent stunting, help with stunting, and make stunting easier. Then there is the legal structure factor. The regent's decrees stipulate changes in this regulation's development, aiming to shift the institutional acceleration of stunting reduction towards a more integrated approach. The final factor is the legal culture, where issues persist with the public's understanding of their active participation in government programs, thereby influencing nutritional surveillance assistance for stunting prevention.

The Effectiveness of Accelerating Stunting Reduction Policy in Finland

One state policy worth paying attention to is Finland's implementation of a food tax system to limit the consumption of products containing excess sugar and artificial sweeteners, such as confectionery sugar, chocolate, ice cream, and non-alcoholic drinks. Finland, together with France, Denmark, and Hungary, has initiated the implementation of a tax policy on these foods. This is different from Thailand and Malaysia, which exempt VAT tax on all basic agricultural goods. Compared to Finland, Indonesia has not yet attempted to implement a tax for the sake of health, but has sought tax exemptions for basic necessities, such as in Thailand and Malaysia.

Since the implementation of this regulation, there has been a reported decrease in the consumption of sweet foods and soft drinks in 2011 and 2014. The Sugar Tax Working Group explored three possible tax models: a tax set based on sugar per kilogram in each product, a tax calculated per product unit, and a combination of the two models. Despite being a significant source of income for Finland, the implementation of this food tax lacks an official forum or procedure for review. The Finnish government formulates nutrition recommendations, which are published regularly by the National Nutrition Council, which has representatives from several ministries, academia, organizations, and the private sector.³⁷ The government is trying to increase public awareness about healthy lifestyles, regardless of income or social status. The government generally targets the entire population with nutritional guidelines, but also offers specific recommendations for various groups like children, students, pregnant women, the elderly, and so on.³⁸

Since 1948, every child in Finland has received at least one warm drink and a nutritious, balanced meal at school every day. They also provide immediate companionship to pregnant women from the confirmation of pregnancy until delivery. Antenatal classes are also available, where participants receive guidance and

³⁶ Isobel L. Gabain, Anouschka S. Ramsteijn, and Joanne P. Webster, 'Parasites and Childhood Stunting – a Mechanistic Interplay with Nutrition, Anaemia, Gut Health, Microbiota, and Epigenetics', *Trends in Parasitology*, 39.3 (2023), 167–80 https://doi.org/10.1016/j.pt.2022.12.004

³⁷ Chloe Angood and others, 'Research Priorities on the Relationship between Wasting and Stunting', *PLoS ONE*, 11.5 (2016), 1–13 https://doi.org/10.1371/journal.pone.0153221

³⁸ Mark E. McGovern and others, 'A Review of the Evidence Linking Child Stunting to Economic Outcomes', *International Journal of Epidemiology*, 46.4 (2017), 1171–91 https://doi.org/10.1093/ije/dyx017



support in the transition to parenthood, such as breastfeeding techniques and how to care for a newborn.³⁹ When pregnant women register for antenatal assistance and examination, they are entitled to receive a birth package that includes essential items like clothing and access to nutritional information from various sources, such as midwife or doctor consultations, hospitals, and clinics. Some health facilities have website pages where families can submit questions and learn about making healthy meals for their family.⁴⁰

In Finland, municipal governments must provide information about healthy lifestyles and organize meal services in daycares, schools, nursing homes, and hospitals. The government or the private sector can provide these services. In addition, the implementation of the heart symbol on the packaging signifies the presence of healthy food. Child care center managers receive support from stakeholders in ensuring healthy nutrition through daily monitoring, which guarantees the food they serve is nutritious and low in sugar and salt. In Finland, the prevalence of obesity is lower than the regional average of 25.3% for women, but higher than the regional average of 24.9% for men. However, Finland is on track to meet diabetes targets, with 6.5% of adult men and 4.4% of adult women affected. The Finnish government also taxes products containing excess sugar and artificial sweeteners for confectionery, chocolate, ice cream, and non-alcoholic drinks to reduce public consumption of these products.⁴¹

The government, private sector, and society have demonstrated good synergy to improve Finland's national health status, which includes controlling the excessive use of salt in food. The Finnish government is increasing consumer understanding of the dangers of excess salt in food through the media and the involvement of health services to actively inform the general public about the dangers of excess salt. The food industry is also actively working to reduce salt intake in Finland. In terms of health services, there are changes where previously health services were implemented using a decentralized system, changing to centralization starting in 2023,⁴² specifically, the Well-being Service Counties (WBSC) are in charge of providing publicly funded health and social services and establishing a tax-based centralized funding mechanism. At the national level, health services are provided.⁴³

Through the implementation of this policy, it has become clear that the government plays a crucial role in guiding people's lifestyles towards healthier choices. This includes formulating regulations to prevent unhealthy behavior, such as regulating food taxes, promoting healthy lifestyles through the regulation of related

³⁹ Khaled Abass and others, 'Pilot Study on the Concentrations of Organochlorine Compounds and Potentially Toxic Elements in Pregnant Women and Local Food Items from the Finnish Lapland', *Environmental Research*, 211.October 2021 (2022) https://doi.org/10.1016/j.envres.2022.113122

⁴⁰ Angood and others.

⁴¹ Pourya Valizadeh and Shu Wen Ng, 'Promoting Healthier Purchases: Ultraprocessed Food Taxes and Minimally Processed Foods Subsidies for the Low Income', *American Journal of Preventive Medicine*, 000.000 (2024) https://doi.org/10.1016/j.amepre.2024.02.019

⁴² Amarachi Nneli, Cesar Revoredo-Giha, and Wisdom Dogbe, 'Could Taxes on Foods High in Fat, Sugar and Salt (HFSS) Improve Climate Health and Nutrition in Scotland?', *Journal of Cleaner Production*, 421.August (2023), 138564 https://doi.org/10.1016/j.jclepro.2023.138564

⁴³ Anne Waugh and others, "'Coke's Not a Food": A Critical Discourse Analysis of Sugar-Sweetened Beverage Tax Acceptability by White Residents from an Upper-Middle Class Neighborhood in Winnipeg Manitoba', *Heliyon*, 10.9 (2024), e30089 https://doi.org/10.1016/j.heliyon.2024.e30089



agencies and institutions, directly influencing public consumption, enhancing awareness, and increasing people's willingness to adopt a healthy lifestyle.

The Regional Government of Sukoharjo Regency needs to draft a Regional Regulation related to handling stunting in Sukoharjo Regency to provide certainty regarding the imposition of taxes on essential food items and increase the fiscal independence of districts/cities by intensifying regional revenues as well as strengthening stunting program strategies by optimizing coordination between regional government organizations, paramedics, community assistance groups by facilitating the APBD budget, increasing the government's role in familiarizing people with healthy living behavior by adopting Finnish state policy in terms of strengthening health education in the school environment, formulating regulations regarding limiting the consumption of less nutritious food for the community by implementing taxes and informing nutritional quality through nutritional labels and nutritional recommendations as well as suppressing the promotion of less nutritious foods to strengthen people's healthy living behavior.

CONCLUSION

Based on the discussion that has been mentioned, it can be concluded, first, that the existing acceleration policies have not effectively overcome the problem of stunting in Indonesia because they have not fully met the legal substance factors, one of which is the policy of implementing taxes on nutritious food commodities, thereby affecting people's purchasing power. In the legal structure, incoherence is still found between the technical implementation of the central and regional governments, so it is necessary to issue several policies to change the existing institutional system. Also, in terms of internalizing legal culture in society, there has yet to be a proactive role for the community in increasing their knowledge regarding handling stunting. Second, comparative studies in Finland can provide innovation in terms of strengthening health education in the school environment, formulating regulations regarding limiting the consumption of less nutritious food for the public by implementing taxes and informing nutritional quality through nutrition labels, which in the future can be adopted by policymakers.

REFERENCES

Abass, Khaled, Tatiana Unguryanu, Eva Junqué, Darja Mazej, Janja Snoj Tratnik, Milena Horvat, and others, 'Pilot Study on the Concentrations of Organochlorine Compounds and Potentially Toxic Elements in Pregnant Women and Local Food Items from the Finnish Lapland', *Environmental Research*, 211.October 2021 (2022) https://doi.org/10.1016/j.envres.2022.113122

Angood, Chloe, Tanya Khara, Carmel Dolan, James A. Berkley, Dominique Roberfroid, Andrew Seal, and others, 'Research Priorities on the Relationship between Wasting and Stunting', *PLoS ONE*, 11.5 (2016), 1–13 https://doi.org/10.1371/journal.pone.0153221

Arkedis, Jean, Jessica Creighton, Akshay Dixit, Archon Fung, Stephen Kosack, Dan Levy, and others, 'Can Transparency and Accountability Programs Improve Health? Experimental Evidence from Indonesia and Tanzania', *World Development*, 142 (2021), 105369 https://doi.org/10.1016/j.worlddev.2020.105369



- Baumont, Monique, Wenny Wandasari, Ni Luh Putu Maitra Agastya, Sally Findley, and Santi Kusumaningrum, 'Understanding Childhood Adversity in West Sulawesi, Indonesia', *Child Abuse and Neglect*, 107.October 2019 (2020), 104533 https://doi.org/10.1016/j.chiabu.2020.104533
- Chan, Ho Fai, Katharina Gangl, Mohammad Wangsit Supriyadi, and Benno Torgler, 'The Effects of Increased Monitoring on High Wealth Individuals: Evidence from a Quasi-Natural Experiment in Indonesia', *Journal of Economic Behavior and Organization*, 215 (2023), 244–67 https://doi.org/10.1016/j.jebo.2023.09.017
- Christian, Parul, Kristen M. Hurley, John Phuka, Yunhee Kang, Julie Ruel-Bergeron, Audrey J. Buckland, and others, 'Impact Evaluation of a Comprehensive Nutrition Program for Reducing Stunting in Children Aged 6-23 Months in Rural Malawi', *Journal of Nutrition*, 150.11 (2020), 3024–32 https://doi.org/10.1093/jn/nxaa236
- Cini, Karly I., Nisaa R. Wulan, Dorothea Dumuid, Alifah Nurjannah Triputri, Iffat Abbsar, Luo Li, and others, 'Towards Responsive Policy and Actions to Address Non-Communicable Disease Risks amongst Adolescents in Indonesia: Insights from Key Stakeholders', *The Lancet Regional Health Southeast Asia*, 18.August (2023), 100260 https://doi.org/10.1016/j.lansea.2023.100260
- Dewey, Kathryn G., Charles D. Arnold, K. Ryan Wessells, Elizabeth L. Prado, Souheila Abbeddou, Seth Adu-Afarwuah, and others, 'Preventive Small-Quantity Lipid-Based Nutrient Supplements Reduce Severe Wasting and Severe Stunting among Young Children: An Individual Participant Data Meta-Analysis of Randomized Controlled Trials', American Journal of Clinical Nutrition, 116.5 (2022), 1314–33 https://doi.org/10.1093/ajcn/nqac232
- Dong, Bin, Zhiyong Zou, Yi Song, Peijing Hu, Dongmei Luo, Bo Wen, and others, 'Adolescent Health and Healthy China 2030: A Review', *Journal of Adolescent Health*, 67.5 (2020), \$24–31 https://doi.org/10.1016/j.jadohealth.2020.07.023
- Fadmi, Fitri Rachmillah, Bambang Widjanarko Otok, Kuntoro, and Soenarnatalina Melaniani, 'Analysis of Factors Affecting the Number of Stunting and Wasting in Southeast Sulawesi Using Geographically Weighted Bivariate Generalized Poisson Regression', *Journal of Law and Sustainable Development*, 12.2 (2024), e2354 https://doi.org/10.55908/sdgs.v12i2.2354
- Fahmida, Umi, Indriya Laras Pramesthi, Sari Kusuma, Giri Wurjandaru, and Doddy Izwardy, 'Problem Nutrients and Food-Based Recommendations for Pregnant Women and Under-Five Children in High-Stunting Districts in Indonesia', *Current Developments in Nutrition*, 6.5 (2022), nzac028 https://doi.org/10.1093/cdn/nzac028
- Firmansyah, Amrie, Amardianto Arham, Resi Ariyasa Qadri, Puji Wibowo, Ferry Irawan, Nur Aisyah Kustiani, and others, 'Political Connections, Investment Opportunity Sets, Tax Avoidance: Does Corporate Social Responsibility Disclosure in Indonesia Have a Role?', *Heliyon*, 8.8 (2022) https://doi.org/10.1016/j.heliyon.2022.e10155
- Gabain, Isobel L., Anouschka S. Ramsteijn, and Joanne P. Webster, 'Parasites and



- Childhood Stunting a Mechanistic Interplay with Nutrition, Anaemia, Gut Health, Microbiota, and Epigenetics', *Trends in Parasitology*, 39.3 (2023), 167–80 https://doi.org/10.1016/j.pt.2022.12.004
- Gamalliel, Nico, and Ahmad Fuady, 'Indonesia's New Health Law: Lessons for Democratic Health Governance and Legislation', *The Lancet Regional Health Southeast Asia*, 23 (2024), 100390 https://doi.org/10.1016/j.lansea.2024.100390
- Gani, Aspar Abdul, Veni Hadju, Akmal Novrian Syahruddin, Anang S. Otuluwa, Sukri Palutturi, and Abdul Razak Thaha, 'The Effect of Convergent Action on Reducing Stunting Prevalence in Under-Five Children in Banggai District, Central Sulawesi, Indonesia', Gaceta Sanitaria, 35 (2021), S421–24 https://doi.org/10.1016/j.gaceta.2021.10.066
- Hastuti, Vivilia Niken, Diana Nur Afifah, Denny Nugroho Sugianto, Gemala Anjani, and Etika Ratna Noer, 'Socio-Demographics, Dietary Diversity Score, and Nutritional Status of Children Aged 2–5 Years: A Cross-Sectional Study of Indonesian Coastal Areas', *Clinical Epidemiology and Global Health*, 27.March (2024), 101599 https://doi.org/10.1016/j.cegh.2024.101599
- Hatijar, 'The Incidence of Stunting in Infants and Toddlers', *Jurnal Ilmiah Kesehatan Sandi Husada*, 12.1 (2023), 224–29 https://doi.org/10.35816/jiskh.v12i1.1019
- Hijrawati, Andi Nilawati Usman, Syafruddin Syarif, Veni Hadju, Suryani As'ad, and Yusring Sanusi Baso, 'Use of Technology for Monitoring the Development of Nutritional Status 1000 Hpk in Stunting Prevention in Indonesia', *Gaceta Sanitaria*, 35 (2021), S231–34 https://doi.org/10.1016/j.gaceta.2021.10.028
- Huicho, Luis, Elisa Vidal-Cárdenas, Nadia Akseer, Samanpreet Brar, Kaitlin Conway, Muhammad Islam, and others, 'Drivers of Stunting Reduction in Peru: A Country Case Study', *American Journal of Clinical Nutrition*, 112 (2020), 816S-829S https://doi.org/10.1093/ajcn/nqaa164
- Lowe, Callum, Mattthew Kelly, Haribondhu Sarma, Alice Richardson, Johanna M. Kurscheid, Budi Laksono, and others, 'The Double Burden of Malnutrition and Dietary Patterns in Rural Central Java, Indonesia', *The Lancet Regional Health Western Pacific*, 14 (2021), 100205 https://doi.org/10.1016/j.lanwpc.2021.100205
- McGovern, Mark E., Aditi Krishna, Victor M. Aguayo, and S. V. Subramanian, 'A Review of the Evidence Linking Child Stunting to Economic Outcomes', *International Journal of Epidemiology*, 46.4 (2017), 1171–91 https://doi.org/10.1093/ije/dyx017
- Meiyetriani, Eflita, Arindah Nur Sartika, Meirina Khoirunnisa, Evi Ermayani, Indriya Laras Pramesthi, Aziz Jati Nur Ananda, and others, 'P24-084-23 Understanding the Spatial Predictors of Stunting Among 0–11 Months Children in Sambas District Indonesia Using Spatial Autoregressive Model', *Current Developments in Nutrition*, 7 (2023), 100372 https://doi.org/10.1016/j.cdnut.2023.100372
- Mudirah Ulya, Andi, Karita Sakharina, and Muh Hasrul, 'Human Rights Law



- Regulations against Stunting Patients in Indonesia', *Scholars International Journal of Law*, 4.6 (2021), 2017–19 https://doi.org/10.36348/sijlcj.2021.v04i06.002
- Mulu, Nega, Bekrie Mohammed, Haile Woldie, and Kegnie Shitu, 'Determinants of Stunting and Wasting in Street Children in Northwest Ethiopia: A Community-Based Study', *Nutrition*, 94 (2022) https://doi.org/10.1016/j.nut.2021.111532
- Nneli, Amarachi, Cesar Revoredo-Giha, and Wisdom Dogbe, 'Could Taxes on Foods High in Fat, Sugar and Salt (HFSS) Improve Climate Health and Nutrition in Scotland?', *Journal of Cleaner Production*, 421.August (2023), 138564 https://doi.org/10.1016/j.jclepro.2023.138564
- Pineda, Elisa, Mathilde Gressier, Danying Li, Todd Brown, Sarah Mounsey, Jack Olney, and others, 'Review: Effectiveness and Policy Implications of Health Taxes on Foods High in Fat, Salt, and Sugar', *Food Policy*, 123.October 2022 (2024), 102599 https://doi.org/10.1016/j.foodpol.2024.102599
- Poole, Nigel, Jason Donovan, and Olaf Erenstein, 'Viewpoint: Agri-Nutrition Research: Revisiting the Contribution of Maize and Wheat to Human Nutrition and Health', Food Policy, 100 (2021), 101976 https://doi.org/10.1016/j.foodpol.2020.101976
- Rahut, Dil Bahadur, Raman Mishra, and Subhasis Bera, 'Geospatial and Environmental Determinants of Stunting, Wasting, and Underweight: Empirical Evidence from Rural South and Southeast Asia', *Nutrition*, 120 (2024), 112346 https://doi.org/10.1016/j.nut.2023.112346
- Rivami, D.S., W. Song, and L. Weatherspoon, 'Maternal Nutrition-Related Factors Associated With Stunting And Wasting In Indonesian Children 6-23 Months Of Age', *Clinical Nutrition ESPEN*, 54 (2023), 604 https://doi.org/10.1016/j.clnesp.2022.09.430
- Rizal, Muhammad Fikru, and Eddy van Doorslaer, 'Explaining the Fall of Socioeconomic Inequality in Childhood Stunting in Indonesia', *SSM Population Health*, 9 (2019), 100469 https://doi.org/10.1016/j.ssmph.2019.100469
- Rozaki, Zuhud, Food Security Challenges and Opportunities in Indonesia Post COVID-19, Advances in Food Security and Sustainability, 1st edn (Elsevier Inc., 2021), VI https://doi.org/10.1016/bs.af2s.2021.07.002
- Sadler, Kate, Philip T. James, Zulfiqar A. Bhutta, André Briend, Sheila Isanaka, Andrew Mertens, and others, 'How Can Nutrition Research Better Reflect the Relationship Between Wasting and Stunting in Children? Learnings from the Wasting and Stunting Project', *Journal of Nutrition*, 152.12 (2022), 2645–51 https://doi.org/10.1093/jn/nxac091
- Sassano, Michele, Carolina Castagna, Leonardo Villani, Gianluigi Quaranta, Roberta Pastorino, Walter Ricciardi, and others, 'National Taxation on Sugar-Sweetened Beverages and Its Association with Overweight, Obesity, and Diabetes', *American Journal of Clinical Nutrition*, 119.4 (2024), 990–1006 https://doi.org/10.1016/j.ajcnut.2023.12.013



- Soofi, Sajid Bashir, Shabina Ariff, Gul Nawaz Khan, Atif Habib, Sumra Kureishy, Yasir Ihtesham, and others, 'Effectiveness of Unconditional Cash Transfers Combined with Lipid-Based Nutrient Supplement and/or Behavior Change Communication to Prevent Stunting among Children in Pakistan: A Cluster Randomized Controlled Trial', American Journal of Clinical Nutrition, 115.2 (2022), 492–502 https://doi.org/10.1093/ajcn/nqab341
- Stoneham, Melissa, Melinda Edmunds, and Christina Pollard, 'Local Governments' Decade of Organisational Change to Promote Child Health and Wellbeing: A Western Australian Qualitative Study', *Australian and New Zealand Journal of Public Health*, 45.4 (2021), 355–63 https://doi.org/10.1111/1753-6405.13128
- Sudigyo, Digdo, Alam Ahmad Hidayat, Rudi Nirwantono, Reza Rahutomo, Joko Pebrianto Trinugroho, and Bens Pardamean, 'Literature Study of Stunting Supplementation in Indonesian Utilizing Text Mining Approach', *Procedia Computer Science*, 216.2022 (2022), 722–29 https://doi.org/10.1016/j.procs.2022.12.189
- Supadmi, Sri, Agung Dwi Laksono, Hastin Dyah Kusumawardani, Hadi Ashar, Afi Nursafingi, Ina Kusrini, and others, 'Factor Related to Stunting of Children under Two Years with Working Mothers in Indonesia', *Clinical Epidemiology and Global Health*, 26.October 2023 (2024), 101538 https://doi.org/10.1016/j.cegh.2024.101538
- Uliniansyah, Mohammad Teduh, Indra Budi, Elvira Nurfadhilah, Dian Isnaeni Nurul Afra, Agung Santosa, Andi Djalal Latief, and others, 'Twitter Dataset on Public Sentiments towards Biodiversity Policy in Indonesia', *Data in Brief*, 52 (2024), 109890 https://doi.org/10.1016/j.dib.2023.109890
- Valizadeh, Pourya, and Shu Wen Ng, 'Promoting Healthier Purchases: Ultraprocessed Food Taxes and Minimally Processed Foods Subsidies for the Low Income', *American Journal of Preventive Medicine*, 000.000 (2024) https://doi.org/10.1016/j.amepre.2024.02.019
- Waugh, Anne, Patricia Thille, Kerstin Roger, Andrea Bombak, Kelsey Mann, and Natalie Riediger, "Coke's Not a Food": A Critical Discourse Analysis of Sugar-Sweetened Beverage Tax Acceptability by White Residents from an Upper-Middle Class Neighborhood in Winnipeg Manitoba', *Heliyon*, 10.9 (2024), e30089 https://doi.org/10.1016/j.heliyon.2024.e30089