

*World No Tobacco Day 2023*

# Tobacco's Impact on Food Security



Global Alliance  
for Tobacco Control

May 25, 2023

# Speakers



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# Agenda

- Tobacco's impact on food security.
- Tobacco farming's impact on food security.
- Tobacco's impact on food deserts – linkages between Poverty, Food Insecurity, Stress, and Tobacco Use.
- Local example – the work DC is starting on the overlap between tobacco use and food security, addressing tobacco use in food access.

# Submitting Questions

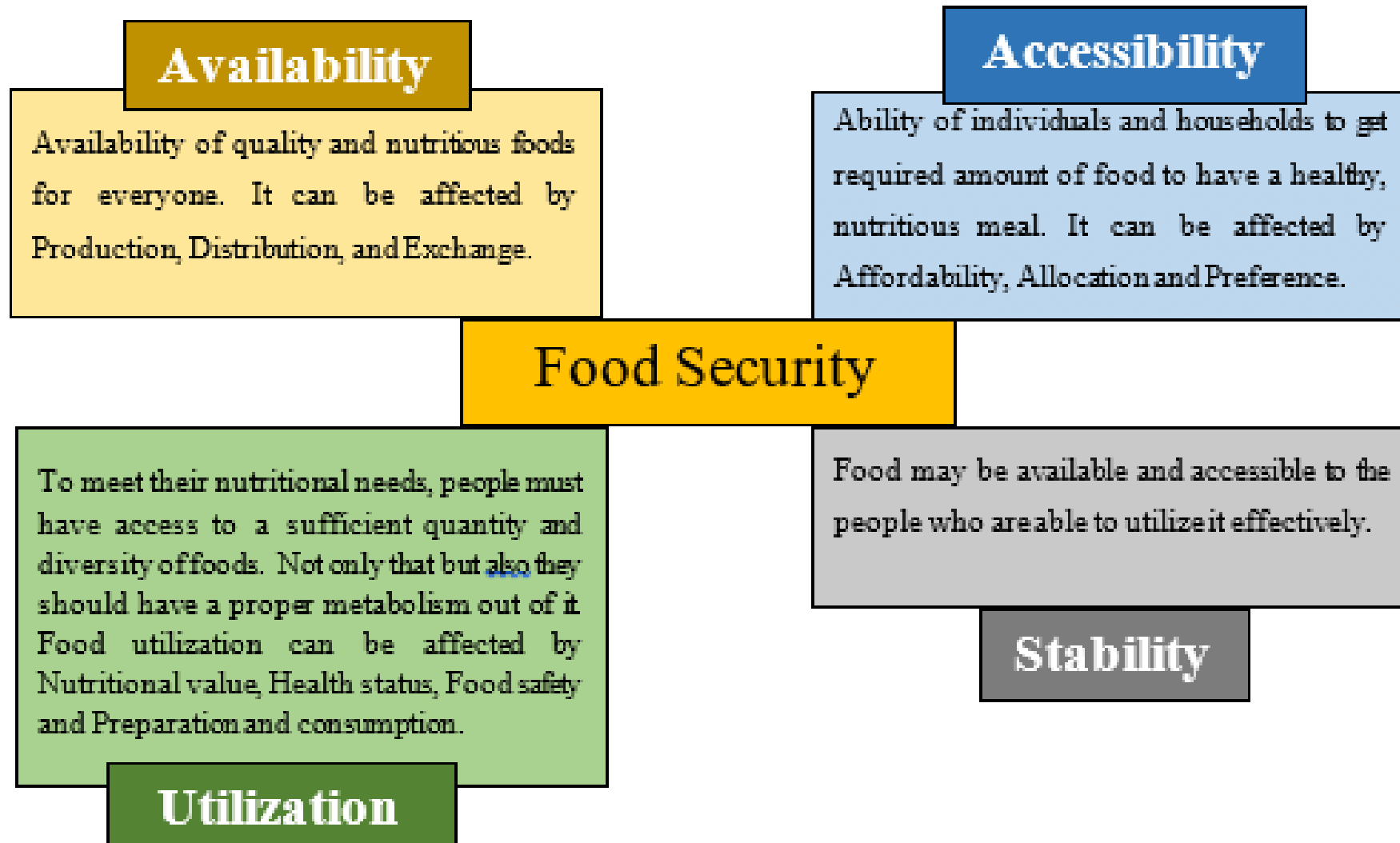


# What is food insecurity?

Based on the [1996 World Food Summit](#), food security  
is exists when

*“all people, at all times, have physical and economic access to sufficient safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life.”*

# What is food insecurity?



# Food (in)security and tobacco control

- Tobacco production and consumption may negatively impact all of these dimensions.
- Research has demonstrated negative impacts on *physical availability of food* and *the economic and physical access to food*.



<https://foodtank.com/news/2022/04/new-hunger-hotspots-report-identifies-drivers-of-global-food-insecurity/>

# Food (in)security and tobacco control

## Tobacco Consumption:

- Expenditure on tobacco, particularly on cigarettes represents a major burden for the poorest households.
- Tobacco expenditures exacerbate the effects of poverty and cause significant deterioration of living standards amongst the poor.
- A study found that an estimate 10.5 million people could have had adequate diets if money spent on tobacco were to be spent on food instead.



Source: <https://www.aao.org/eye-health/tips-prevention/smokers>



# Food (in)security and tobacco control

Aside from consumption, studies on the impact of tobacco production on food security demonstrate:

- On one hand, tobacco has income from tobacco sales being used to purchase food in high yield years; **However**, tobacco production has also been linked to food insecurity in various countries.
- The link between tobacco and food insecurity has been attributed in part to:
- the labor hours required to produce tobacco,
- use of quality land that can be used to produce food;
- as well as the harsh impact of tobacco production on soil which hinders food production.



Source: <https://tobaccotactics.org/article/tobacco-farming/>

# The role of FCTC implementation

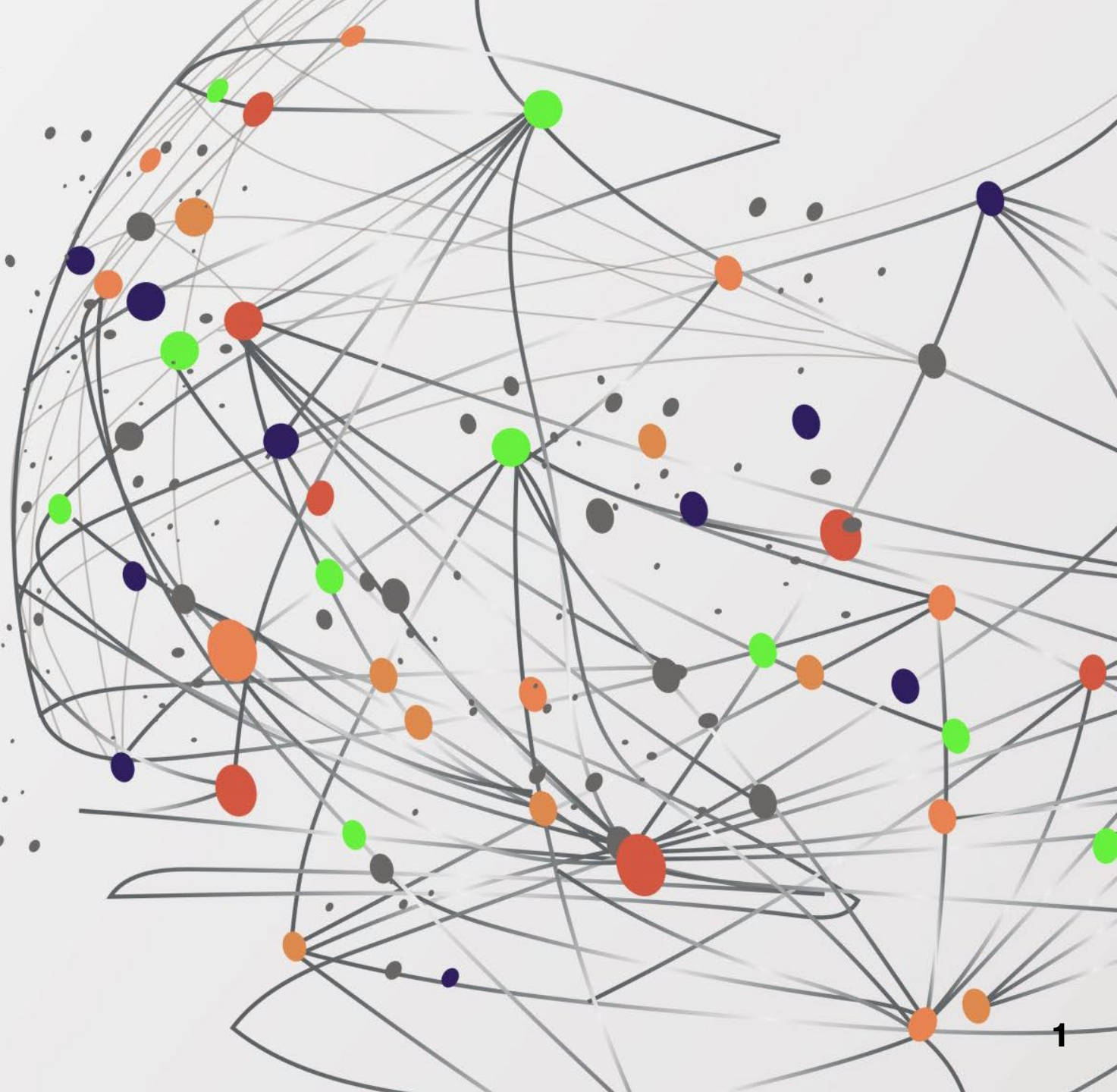
- The Framework Convention for Tobacco Control (FCTC) is an evidence based global health treaty that tackles the causes of the tobacco epidemic, including cross broader effects such as trade liberation and direct investment, tobacco investment and more.
- This includes measures to decrease both supply and demand for tobacco; or in other words the production and consumption of tobacco.
- The FCTC presents opportunities to improve policy coherence between tobacco control and food security.

# What conditions shape tobacco growing and how can we pursue alternatives?

Raphael Lencucha, PhD

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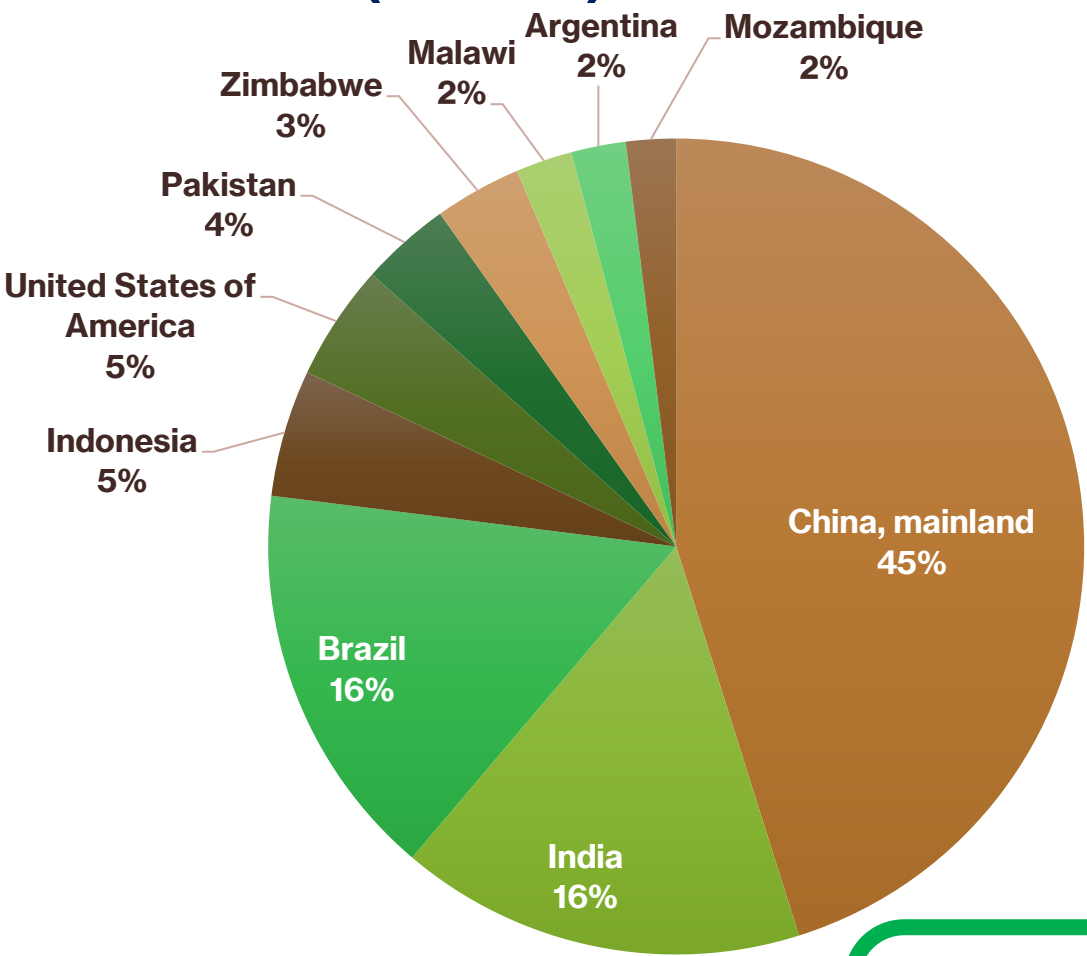




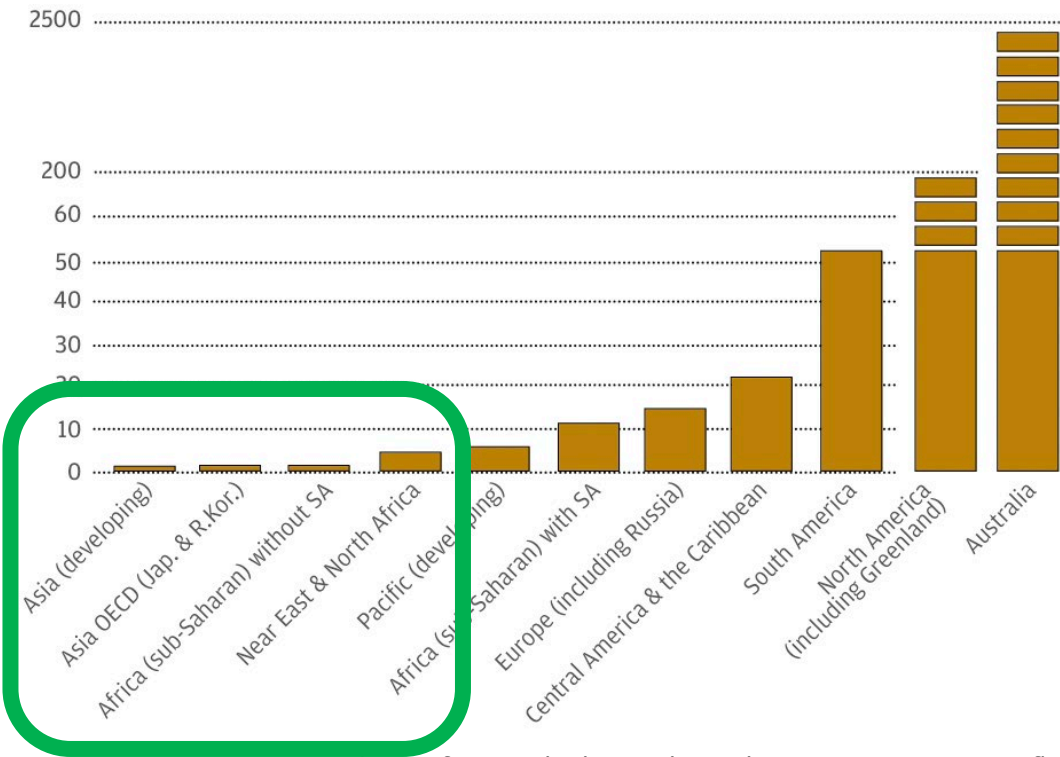
**Where is tobacco  
grown?**



# Total Tobacco Production 2021 (Tonnes)



AVERAGE SIZE OF AGRICULTURAL HOLDINGS (ha)



([www.fao.org/nr/water/docs/Enduring\\_Farms.pdf](http://www.fao.org/nr/water/docs/Enduring_Farms.pdf))

## Global Food Security Index 2022

(<https://impact.economist.com/sustainability/project/food-security-index>)

Rank (113 countries)	Overall score	Affordability	Availability	Quality and Safety	Sustainability and Adaptation
=91 <sup>st</sup> Malawi	48.1	33.6	52.9	52.0	58.2
93 <sup>rd</sup> Uganda	47.7	48.3	41.0	45.1	57.0
94 <sup>th</sup> Mozambique	47.3	42.6	49.4	41.8	56.5



**How do  
governments view  
tobacco?**

## Zambia to raise tobacco production to 30 MT in 2017

The tobacco industry intends to increase production next year from the current 23 million tonnes to about 30 million tonnes to promote the local producers as they expand their businesses. Tobacco Board of Zambia (TBZ) chairman Rhidah Mung'omba said in an interview that tobacco was an important crop and part of agriculture which contributed 3 percent of Zambia's Gross Domestic Product (GDP).

"Tobacco is part of agriculture; it contributes 3 percent of the GDP, it can improve. Agriculture is not just something you can eat, it is a contribution to the economy by everybody. "Part of our plans for next year is that we intend to increase production from 23 million tonnes to maybe about 30 million tonnes; this will enable us to also increase tobacco exports," he said.

## ***Zimbabwe's minister of Agriculture, Anxious Jongwe Masuka, explains how the country will build a \$5 billion tobacco industry by 2025.***

By Taco Tuinstra

Following the resignation of Zimbabwe's longtime president, Robert Mugabe, in late 2017, the new government invited private citizens to provide ideas on how to improve agriculture. Drawing on his extensive background in agriculture, policy and strategy, Anxious Jongwe Masuka wrote a letter in which he detailed the steps that he believed would help the nation achieve a prosperous, sustainable and competitive agricultural sector.

**"We want businesses, such as BAT, to continue to grow. To make sure that the environment is conducive for them to continue to expand their business, so that **if they win, we win**" (BAT Distribution Hub Opening, Cabinet Secretary of the Ministry of Industrialization and Enterprise)**



# Why do some governments want tobacco production to grow?

A photograph showing two women in a lush green tobacco field. The woman in the foreground is wearing a blue and white striped headscarf and an orange shirt, focused on harvesting leaves. The woman in the background is wearing a red headscarf and a green shirt, also working in the field. The background is filled with rows of tobacco plants and tall trees under a bright sky.

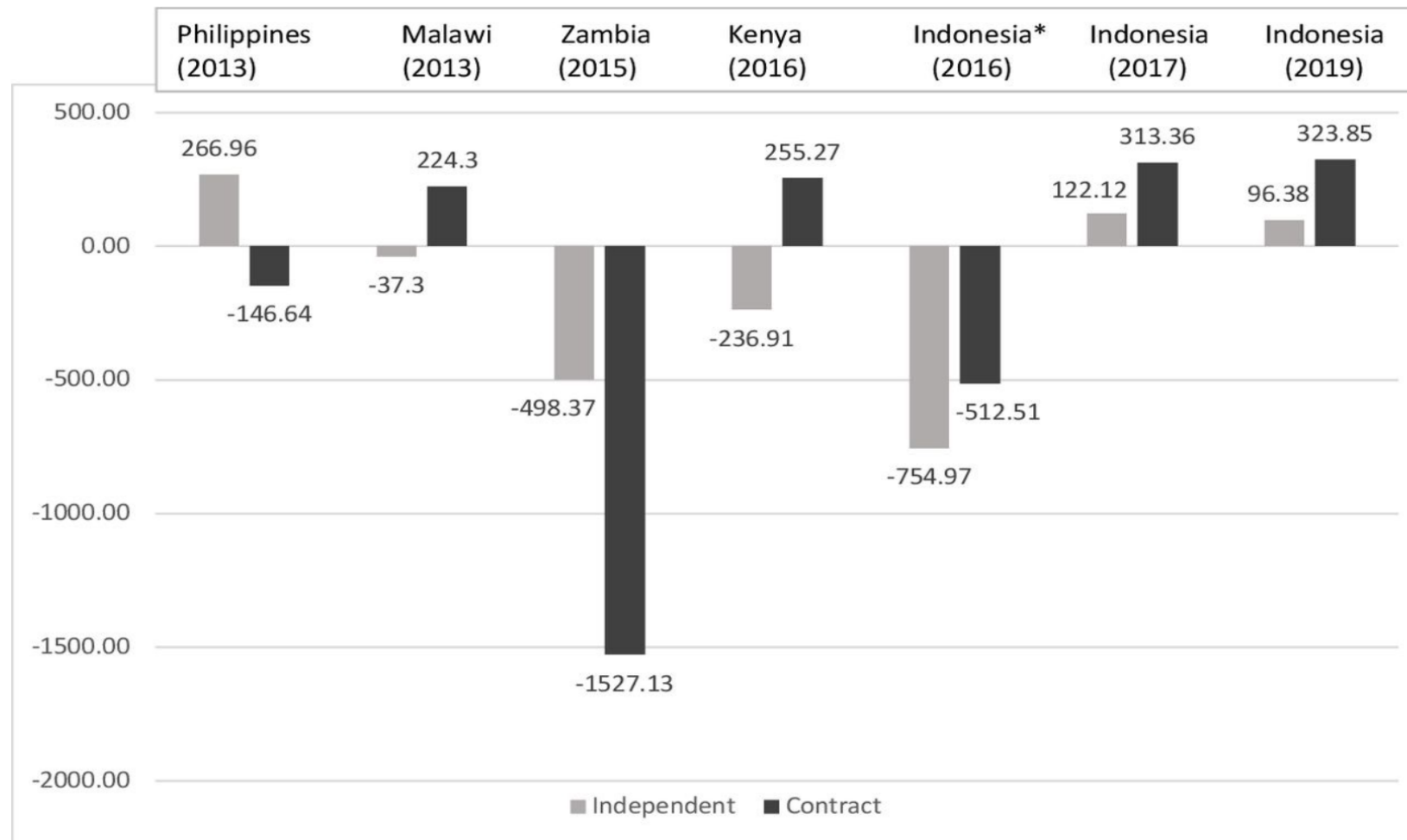
The representative of *Zambia* said that for *many sub-Saharan African* countries tobacco production and trade accounted for a large proportion of rural income.

The measure introduced by Canada would have a direct impact on the ***lives of these rural communities whose livelihood revolved around tobacco production*** (G/TBT/M/52)

**Rural Livelihoods**



**Average profits and losses for individual tobacco farming households in USD. \*Indonesia data include tobacco and non-tobacco farming profits.**



(Lencucha, R., Drope, J., Magati, P., & Sahadewo, G. A. (2022). Tobacco farming: overcoming an understated impediment to comprehensive tobacco control. *Tobacco Control*, 31(2), 308-312)

# What are the key economic problems with tobacco growing?

Type of farmer	Input cost	Levy	Transport	Interest	Household labour	Hired labour	Annual Income	Annual Profit	Monthly net income	International extreme poverty standard (2.15/person/day) Monthly equivalent for 4-person household
Contract	321.93	39.02	13.33	1.53	252.87	117.08	1349.9	604.14	50.35	258
Independent	257.31	7.26	10.24	0	338.72	109.95	1204.35	480.87	40.07	

(Magati P, Hecock RD, Li Q, Drope J. 2020. The Economics of Tobacco Farming in Kenya: A Longitudinal Study. Nairobi: International Institute of Legislative Affairs // Chicago: Tobacconomics, University of Illinois at Chicago)

# Why do some governments want tobacco production to grow?

... [FCTC] ... was [seen as] a threat to tobacco producing countries and as you know members of SADC, mostly a number of them are involved in tobacco production and there was fear that **regulations might affect tobacco-producing countries in terms of revenue** (SADC Representative)

**Economy of the  
Country**

# Tobacco's contribution to GDP

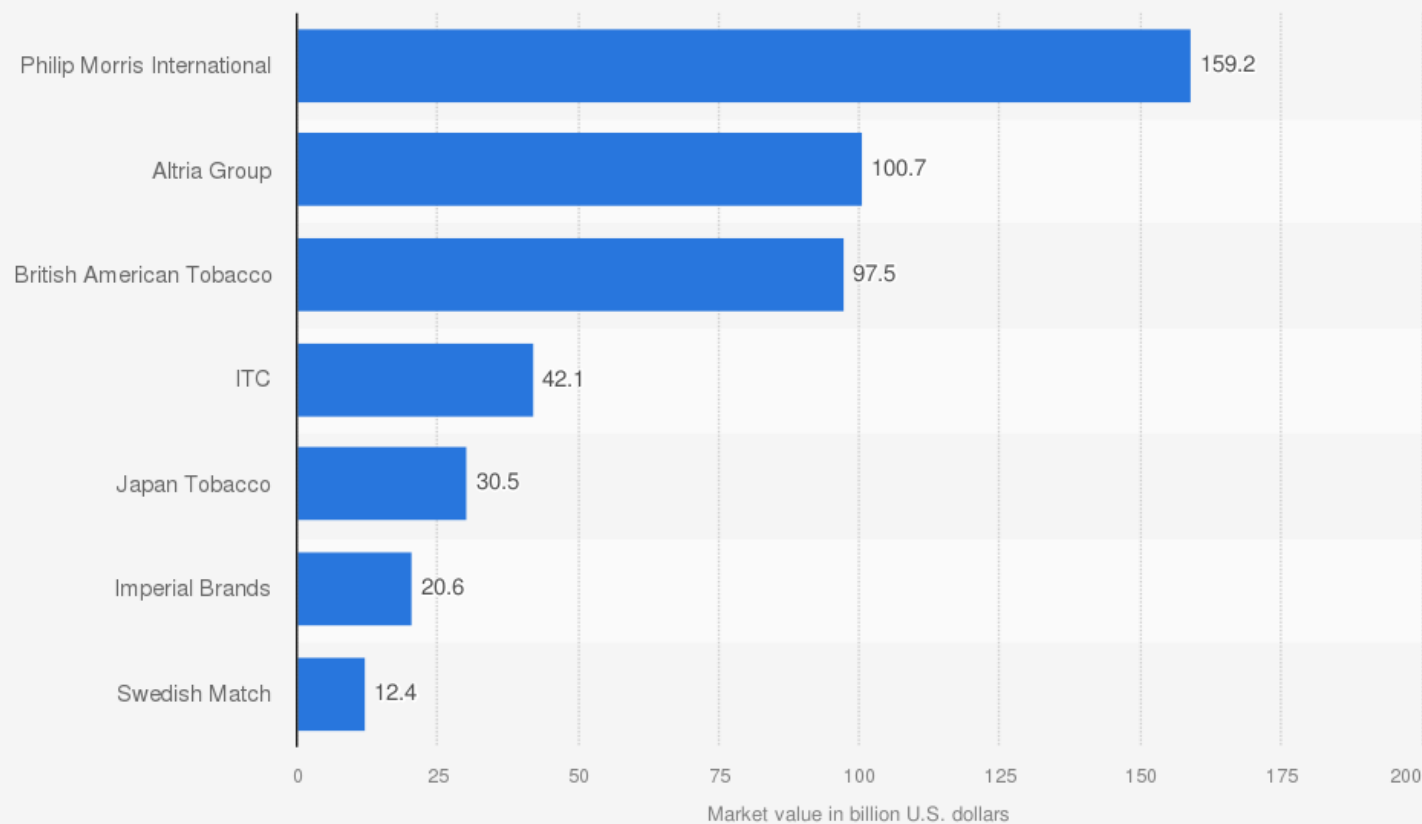
Country-level data of tobacco production for the top tobacco-producing countries in the world\*

Country	The share of tobacco farming to GDP in 2018 (%)	Numbers of tobacco farmers by country	Share of tobacco farmers to total employment in agriculture sector (%)	Share of tobacco farmers to overall employment (%)	Share of tobacco exports to total commodity export in 2018 (%)	Share of tobacco exports to overall exports in 2018 (%)	Share of agricultural land for tobacco farming in 2014 (%)
China	0.067480	5 497 000 (2017)	1.9262394	0.7127087	0.0564555	0.0539464	3.57
India	0.037924	48 806 (2020)	0.1353900	0.0744266	0.3136025	0.3078659	0.24
Brazil	0.073748	60 200 (2020)	0.7302897	0.1692893	0.8351883	0.8214403	0.15
Zimbabwe	2.881452	22 323 (2020)	2.4862904	1.8300320	15.3586822	13.8091314	0.49
USA	0.005314	150 (2020)	0.0378173	0.0038069	0.1077477	0.1157419	0.04
Indonesia	0.025456	27 688 (2017)	1.0117532	0.4248894	0.4017758	0.4022222	0.37
Zambia	1.250362	7 637 (2020)	0.3775204	0.2709508	2.0192082	1.5741121	0.28
Bangladesh	0.030106	00 000 (2017)	0.3119531	0.1550109	0.3457389	0.2576211	0.55
Tanzania	0.006931	0 005 (2018)	0.3016069	0.2327625	9.6420765	6.2570922	0.22
Argentina	0.041801	1 389 (2019)	0.6571323	0.1140339	0.6106504	0.6136438	0.04
Kenya	0.023098	6 000 (2019)	0.2112974	0.1557356	2.5454545	2.3123123	0.04
Malawi	0.201952	0 816 (2020)	1.0161168	0.6692127	69.3137976	58.9067308	2.14
Mozambique	0.399495	37 042 (2017)	1.5167903	1.1456254	5.2399423	3.1689756	0.15

• \*Data sources: tobacco raw production value data from Food and Agriculture Organization (<http://www.fao.org/faostat/en/%23data/QV2>). Tobacco farmer data from the database of various sources (eg. COMESA) at the International Tobacco Growers Association (an active opponent to tobacco control with direct ties with industry) (<https://atlas.tobaccoleaf.org/>) and tobacco farmer data for Kenya from Tobacco Tactics (<https://tobaccotactics.org>). Sectoral employment data for elementary occupations and skilled agricultural, fishery and forestry workers and overall country level employment data from International Labour Organization ([https://www.ilo.org/shinyapps/bulkexplorer35/?lang=en&segment=indicator&id=EMP\\_2EMP\\_SEX\\_OCU\\_NB\\_A4](https://www.ilo.org/shinyapps/bulkexplorer35/?lang=en&segment=indicator&id=EMP_2EMP_SEX_OCU_NB_A4)). Export data of commodities from Total Trend Economy ([https://trendeconomy.com/data/commodity\\_h2/TOTAL](https://trendeconomy.com/data/commodity_h2/TOTAL)) and Bangladesh commodity export data from Bangladesh Bank ([https://www.bb.org.bd/econdata/export/exp\\_rcpt\\_comodity.php](https://www.bb.org.bd/econdata/export/exp_rcpt_comodity.php)). Tobacco export data and total export data from The Observatory of Economic Complexity (<https://oec.world/en>) that uses source data from CEPII French Economic Research Center and country-level data.<sup>6</sup> The share of agriculture land from Tobacco Atlas (6th edition) (<https://tobaccoatlas.org/>).

# WHO IS WINNING?

Leading tobacco companies worldwide in 2021, based on market value (in billion U.S. dollars)



Source  
Forbes  
© Statista 2023

Additional Information:  
Worldwide; Forbes; 2021



**If farmers aren't  
winning, why do they  
continue to grow  
tobacco?**



At least the tobacco farming has the technicians, the other farming of things like maize, beans you work it out on your own” (Farmer, Kenya)

Reasons for Growing Tobacco						
Reasons	Malawi		Kenya		Zambia	
	Initiation (%)	Currently (%)	Initiation (%)	Currently (%)	Initiation (%)	Currently (%)
Ready market	6	9.2	13	12	12	16
Only viable crop	63.5	58.8	31	50	31	31
Inherited	8.5	N/A	7	N/A	4	N/A
Accustomed to growing	N/A	10.9	N/A	6	N/A	6
Availability of land	0.3	0.3	2	2	0	1
Influenced by other tobacco producers	15.3	1.5	12	5	15	2
Incentives from tobacco companies	0.3	0.1	8	7	6	5
Highly lucrative	6.1	3.9	19	7	15	19

(Appau, A., Drope, J., Goma, F., Magati, P., Labonte, R., Makoka, D., ... & Lencucha, R. (2020). Explaining why farmers grow tobacco: evidence from Malawi, Kenya, and Zambia. *Nicotine and Tobacco Research*, 22(12), 2238-2245)

Category	Sub-Category	Representative Quotes
Perceived Viability	Profitability	"The other crops can only give us a minimal income"
	Availability of Market	"You have to scout for buyers, unlike in tobacco that regardless of the amount you want to sell, there is always a market"
	Environmental Factors	"I have said before; the land is only suitable for tobacco and marijuana"
Financial Context	Access to Financial Loans and Lack of Capital	"Despite the hardship in planting tobacco, I will still plant tobacco. If I stop, I will not be able to borrow money"
	Lump-Sum Accumulated Savings	"As long as we have sent it to (company), then going home with money is already called refreshing"

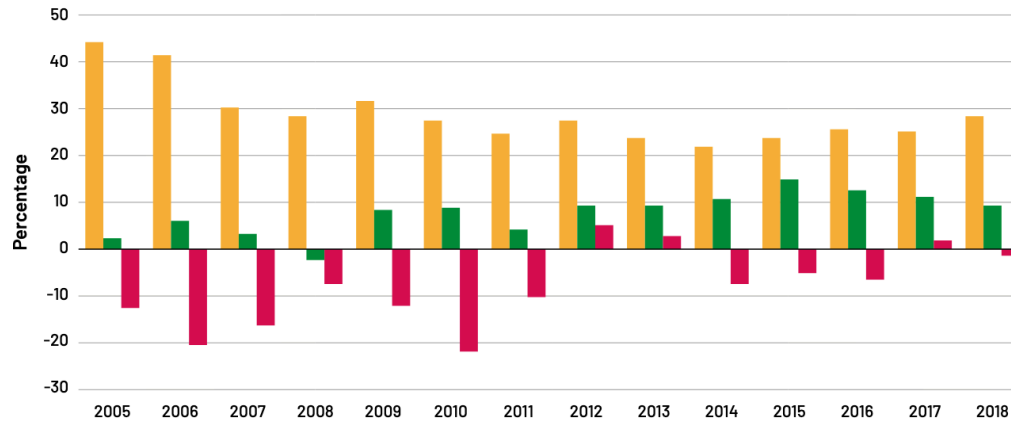
(Appau, A., Drope, J., Witoelar, F., Chavez, J. J., & Lencucha, R. (2019). Why do farmers grow tobacco? A qualitative exploration of farmers perspectives in Indonesia and Philippines. *International Journal of Environmental Research and Public Health*, 16(13), 2330.)



# Pursuing alternatives



Nominal rate of assistance as a percentage of production value, by income level



Corn dominates Top 10 farm subsidy recipients



**... a note on  
agricultural  
subsidies and  
supports ...**

*“For a Malawian farmer to compete with  
an American or European farmer who are  
heavily subsidized, it is very difficult.”  
(Government Official, Agriculture)*



**What can be done?**

### ***Financial support***

- Facilitate **access to individual or group loans** to cover production costs
  - Establish necessary infrastructure to ensure efficient movement from farm to market (local, national and international)
  - Implement investment incentives at processing and manufacturing, as well as in the distribution chain, to attract investment
  - **Subsidized career development and employment opportunities.**
- Reduce tobacco industry influence

## Input support

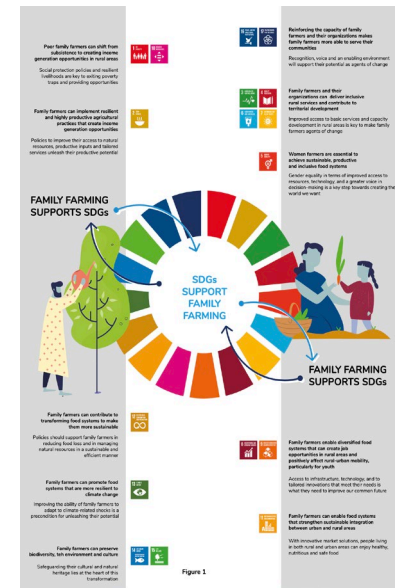
- Oversee the supply of inputs and infrastructure to support **affordable inputs including seed, fertilizer and pesticides**
  - Work with communities and suppliers to reduce input costs
  - Participate in initiatives by **community extension services** to explore environmentally sustainable, financially accessible and productive alternatives to agrochemical cultivation
- Support communities to identify sustainable and healthy food crops

### *Output support/restrictions*

- Manage minimum crop pricing standards
- Enforce **predictable and comprehensive** trade policies
- Establish and manage **market information systems**
- Ensure fair dealings in international markets
- Participate in trade and investment negotiations

## Technical support

- Establish **research facilities** to inform
- Establish **training facilities** and processes to support farmers in the transition to alternative crops
- Support extension workers to provide on-farm support throughout the growing season.



# NATIONAL COORDINATING MECHANISMS FOR TOBACCO CONTROL

Toolkit for Parties to implement Article 5.2(a) of  
the World Health Organization Framework  
Convention on Tobacco Control





National Institutes  
of Health



CIHR IRSC

Canadian Institutes of Health Research  
Institut de recherche en santé du Canada

**Thank you**





# Intersections of Poverty, Food Insecurity, Stress, and Tobacco Use

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May 25, 2023

WNTD 2023, Tobacco's Impact on Food Security

*No conflicts of interests to declare*



SCHOOL OF MEDICINE  
CASE WESTERN RESERVE  
UNIVERSITY





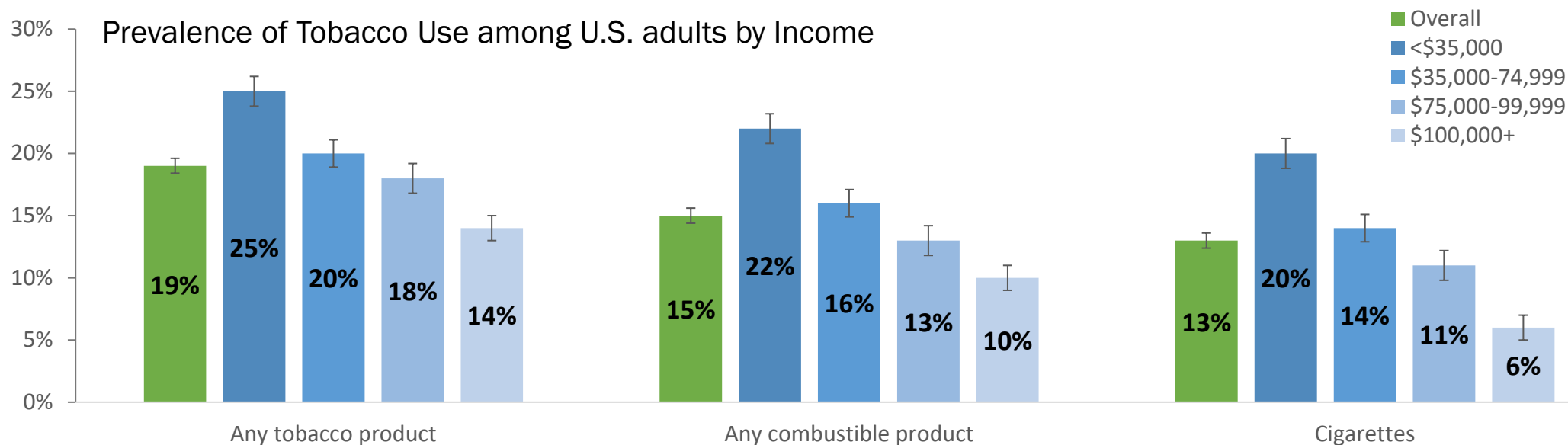


# Presentation Objectives

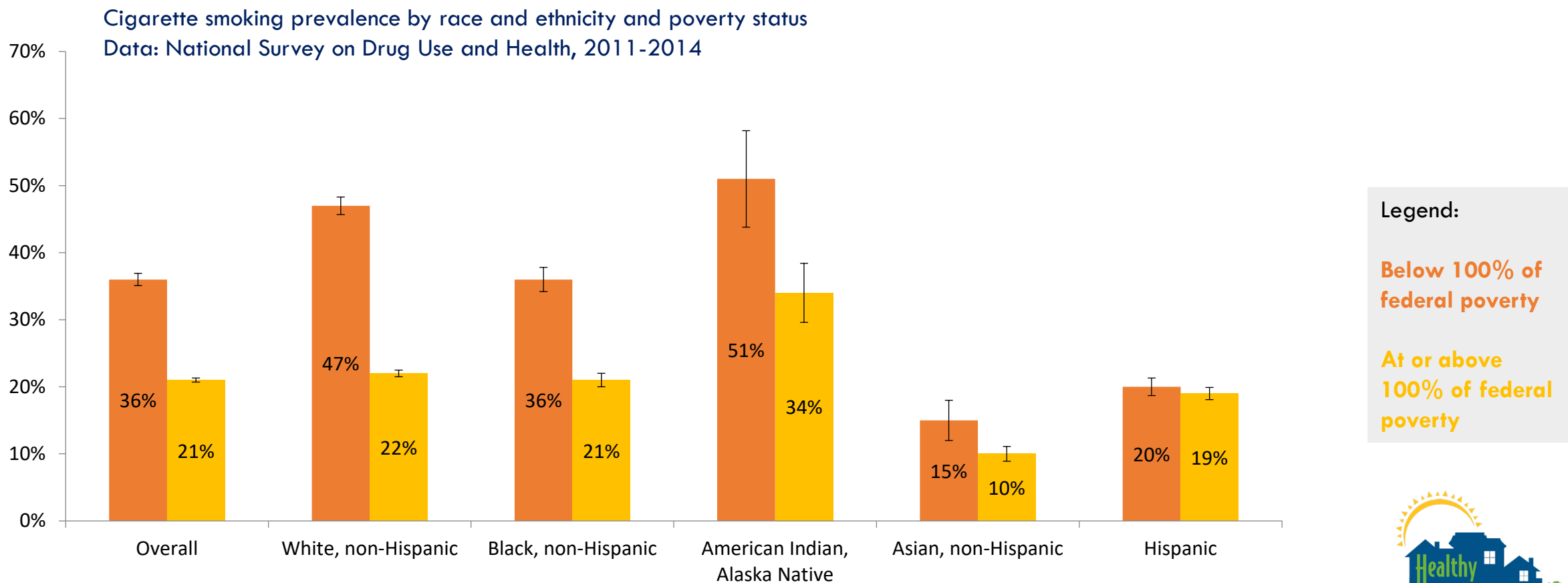
1. Explain linkages between food insecurity and tobacco use from a social ecological perspective
2. Provide a broad overview of public health research findings on food insecurity and tobacco use
3. Understand bidirectionality of food insecurity and tobacco use

# Tobacco-Related Health Disparities

In the U.S. context, socioeconomic disparities in smoking are widening



# Socioeconomic disparities in smoking exist for nearly all racial and ethnic groups in the U.S.







# Disparities in Successful Quitting

- Most U.S. adults who smoke – regardless of socioeconomic circumstance – desire to quit and attempt to quit each year
  - However, success rates vary by socioeconomic status
- Existing tobacco control efforts have not been enough to address disparities

*“Tobacco control interventions are unlikely to be able to counter embedded life patterns and underlying stress-causing conditions such as income instability, poor housing, and run-down neighborhoods.”*

(Hiscock, Bauld, Amos, Fidler, & Munafò, 2012)

- Social drivers of poor health and tobacco use



# Disparities in Successful Quitting

Fundamental Cause Theory (Link & Phelan, 1995)

- *What are the risk factors for the risk factors?*
- *Systems of exposure; factors that shape or constrain health behavior*

# Fundamental causes of smoking

## Original research

### Using systems science to advance health equity in tobacco control: a causal loop diagram of smoking

Sarah D Mills <sup>1,2</sup> Shelley D Golden <sup>1,2</sup> Meghan C O'Leary,<sup>2,3</sup> Paige Logan,<sup>1</sup> Kristen Hassmiller Lich<sup>3</sup>

► Additional supplemental material is published online only. To view, please visit the journal online (<http://dx.doi.org/10.1136/tobaccocontrol-2021-056695>).

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#### ABSTRACT

**Objectives** Develop and use a causal loop diagram (CLD) of smoking among racial/ethnic minority and lower-income groups to anticipate the intended and unintended effects of tobacco control policies.

**Methods** We developed a CLD to elucidate connections between individual, environmental and structural causes of racial/ethnic and socioeconomic disparities in smoking. The CLD was informed by a review of conceptual and empirical models of smoking, fundamental cause and social stress theories and 19 qualitative interviews with tobacco control stakeholders. The CLD was then used to examine the potential impacts of three tobacco control policies.

**Results** The CLD includes 24 constructs encompassing individual (eg, risk perceptions), environmental (eg, marketing) and structural (eg, systemic racism) factors associated with smoking. Evaluations of tobacco control policies using the CLD identified potential unintended consequences that may maintain smoking disparities. For example, the intent of a smoke-free policy for public housing is to reduce smoking among residents. Our CLD suggests that the policy may reduce smoking among residents by reducing smoking among family/friends, which subsequently reduces pro-smoking norms and perceptions of tobacco use as low risk. On the other hand, some residents who smoke may violate the policy. Policy violations may result in financial strain and/or housing instability, which increases stress and reduces feelings of control, thus having the unintended consequence of increasing smoking.

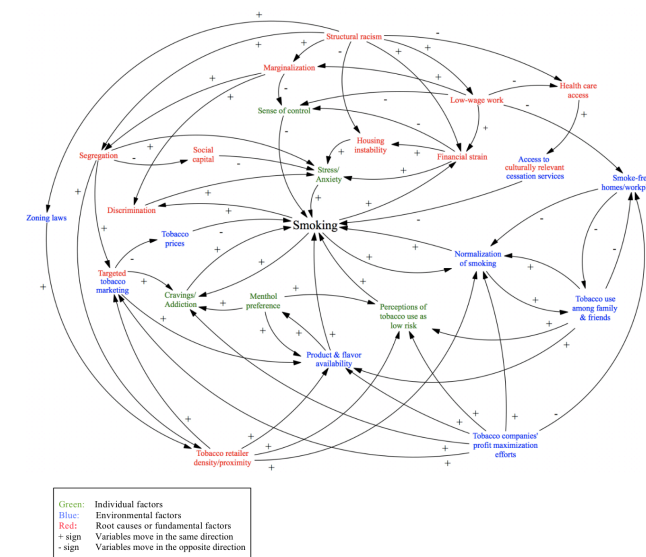
**Conclusions** The CLD may be used to support stakeholder engagement in action planning and to identify non-traditional partners and approaches for tobacco control.

Although there are evidence-based strategies for reducing smoking prevalence overall, it is less clear how to reduce racial/ethnic and socioeconomic disparities in smoking.<sup>3–4</sup> Tobacco control efforts have evolved from high-risk approaches (targeting those identified at most risk) to an emphasis on population-level interventions (changing norms and environments that increase risk exposure).<sup>5</sup> Popular tobacco control strategies like education and awareness campaigns and smoke-free air laws may not impact all populations equally, however, possibly resulting in increased disparities.<sup>6</sup>

Several theories provide insight into why racial/ethnic and socioeconomic disparities in smoking persist. Fundamental cause theory defines root, or 'fundamental', causes of health disparities as factors that emerge or continue to be associated with poor health outcomes, even when proximal risk factors, like prevention and treatment interventions, are developed.<sup>7–8</sup> Such associations remain over time because fundamental causes limit access to key resources (eg, money, health services) necessary for maintaining health. Examples of fundamental causes include socioeconomic status,<sup>7</sup> racism,<sup>9</sup> residential segregation<sup>10</sup> and stigma.<sup>11</sup>

Social stress theory argues that social hierarchies produce higher exposure to stress, including both experiential (eg, job loss) and structural (eg, discrimination) stress, among socially disadvantaged groups.<sup>12–14</sup> Both stress sources can negatively impact mental and physical health. Also, coping resources like social connections and personal resources, which can ameliorate the association of stress with health, are theorized to be socially distributed, such that people with lower social status may have less access to coping resources.<sup>12–14</sup>

- Marginalization
- Discrimination
- Segregation
- Social capital
- Housing instability
- Structural racism
- Healthcare access
- Low-wage work
- Financial strain
- Targeted tobacco marketing
- Tobacco retailer density/proximity
- Access to culturally relevant cessation services



# Food Insecurity at the Household/Individual Level

*Food security* refers to access at all times to enough food for an active, healthy life

*Food insecurity* occurs when there is limited or uncertain access to enough food due to lack of money or other resources

U.S. Overall = ~**10%** in 2021

< 100% of FPL = 32%

< 130% of FPL = 31%

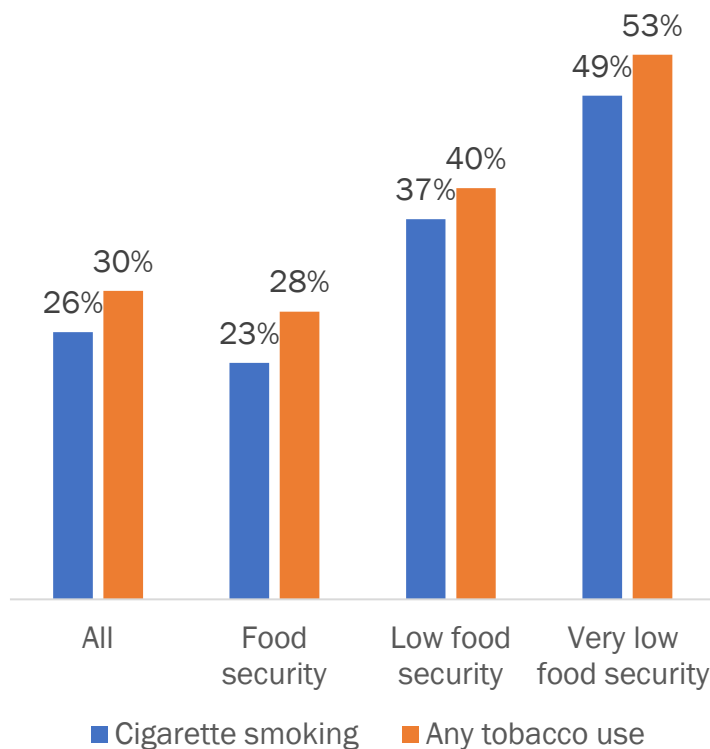
< 185% of FPL = 27%

≥ 185% of FPL = 5%

(FPL = federal poverty level)

# Smoking Prevalence Increases as the Severity of Food Insecurity Increases


Prevalence of Cigarette Smoking and Tobacco Use by Food Security Status  
1999-2014 U.S. National Health and Nutrition Examination Survey



# Food Insecurity and Smoking

## Review Article

### *The Intersection of Food Insecurity and Tobacco Use: A Scoping Review*

Jin E. Kim-Mozeleski, PhD<sup>1</sup>   
Rajshree Pandey, PhD, MPH<sup>1</sup>

Cigarette smoking is increasingly concentrated in socioeconomically disadvantaged groups, and food insecurity also disproportionately affects lower-income groups. Recent studies have suggested that smoking and food insecurity operate as risk factors for one another, but there is limited understanding of their intersection. This scoping review aimed to synthesize the published literature on the association between food insecurity and tobacco use across population groups in the United States and Canada. We searched PubMed, Web of Science, and PsycINFO using key words. Studies included were published in English between 2008 and 2018, reported empirical findings, measured both tobacco use and food insecurity, and considered either variable as a study outcome. Nineteen articles were identified; 6 examined tobacco use as an outcome variable and 13 examined food insecurity as an outcome variable. Most articles were of studies using cross-sectional designs. Study samples ranged from general populations, clinical samples, and underserved populations. For each article, we extracted information including specific findings related to the association between food insecurity and tobacco use. We synthesized the current research by formulating a model by which food insecurity and tobacco use are bidirectionally associated. This scoping review concludes that the co-occurrence of food insecurity and tobacco use exists across populations in the United States and Canada. As the evidence is largely from cross-sectional investigations, there is a need for longer term, comprehensive assessments of relationships between tobacco use and food insecurity. Such investigations can inform policies and interventions aimed toward addressing the inequitable

burden of tobacco use and of food insecurity among disadvantaged populations.

**Keywords:** tobacco; cigarette smoking; food insecurity; scoping review

#### ► BACKGROUND

Tobacco use, particularly cigarette smoking, is disproportionately concentrated among populations of lower socioeconomic status (Hiscock, Bauld, Amos, Fidler, & Munafò, 2012; Jamal et al., 2018), and largely contributes to social gradients in health (Stringhini et al., 2010). Causes of socioeconomic disparities in smoking are complex, necessitating a social ecological approach to understand and address such disparities (U.S. National Cancer Institute, 2017). Previous reviews

<sup>1</sup>University of Massachusetts Amherst, Amherst, MA, USA

**Authors' Note:** The writing of this article was supported by the National Institutes of Health, grant number K01DA043659. The funding agency had no involvement in the design and conduct of the study, interpretations of the data, and preparation and submission of the article. The authors have no conflicts of interests to declare. Address correspondence to Jin Kim-Mozeleski, Department of Health Promotion and Policy, School of Public Health and Health Sciences, University of Massachusetts Amherst, 715 North Pleasant Street, Amherst, MA 01003, USA; e-mail: jinkim@umass.edu.

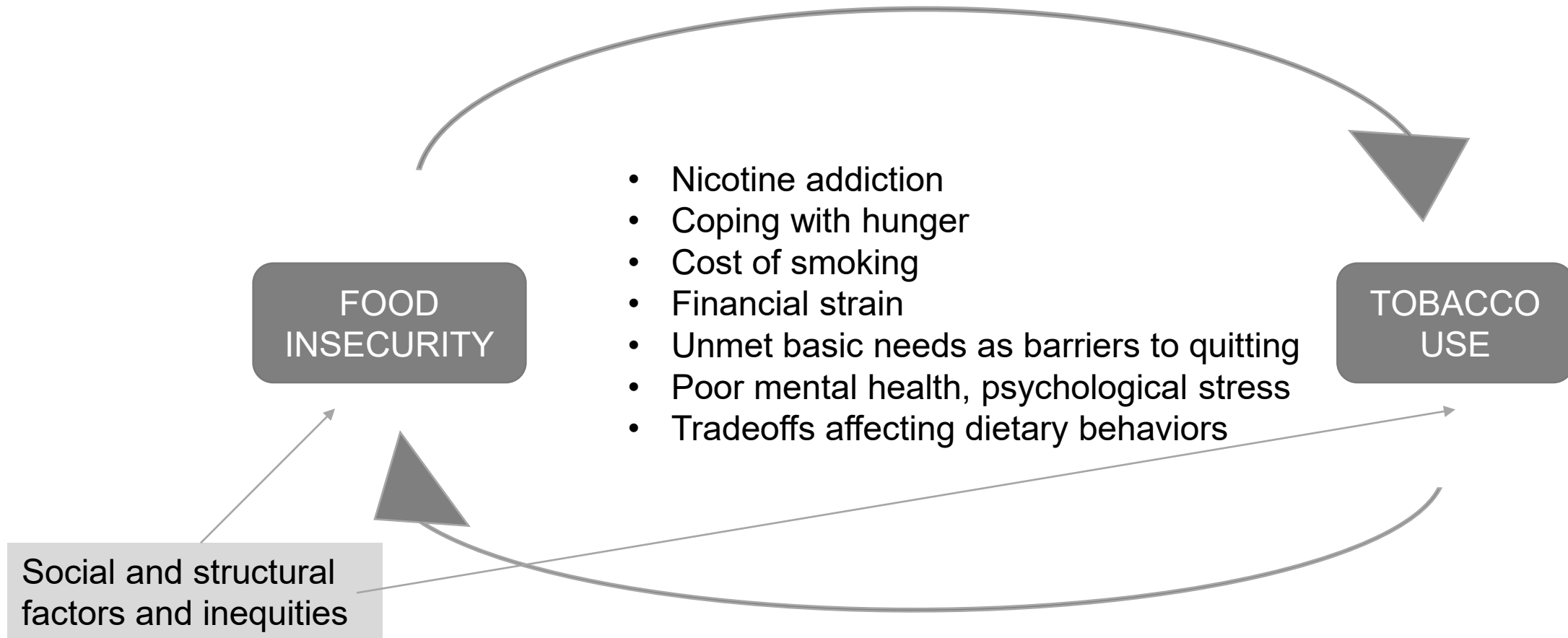
**Supplement Note:** This article is part of the Health Promotion Practice supplement, "Tobacco and Health Equity: Interventions, Research, and Strategies to Address Tobacco Use Among Diverse Populations," developed under the guidance of the Society for Public Health Education (SOPHE). SOPHE received funding from the Food and Drug Administration's Office of Minority Health and Health Equity (Grant number HHSF223201820377A) to support printing and open access dissemination. The views and findings expressed in these manuscripts are those of the authors and do not imply endorsement or reflect the views and policies of the U.S. Government. The entire supplement issue is available open access at [https://journals.sagepub.com/toc/hppa/21/1\\_suppl](https://journals.sagepub.com/toc/hppa/21/1_suppl).

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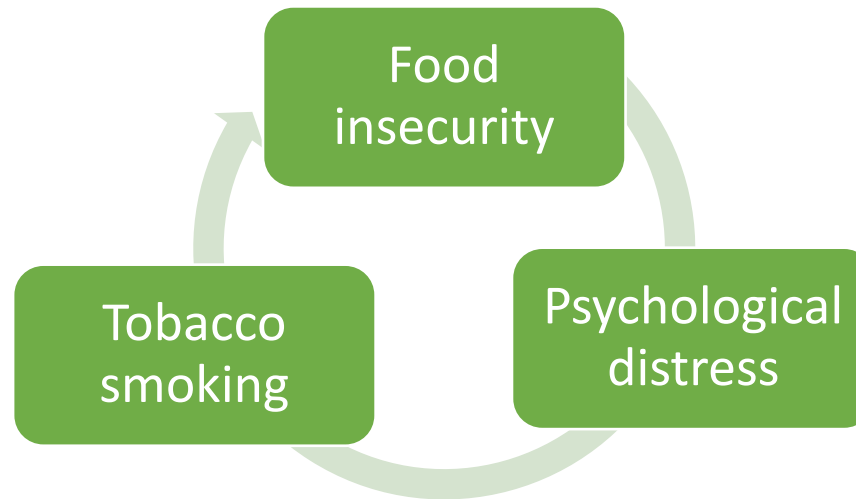
- Review of 19 quantitative studies, published between 2008 and 2018
  - English-language peer reviewed articles, study samples from U.S. and Canada
- Study Participants: general populations, clinical samples, and specific health disparity groups
- Tobacco use and food insecurity are risk factors for each other
  - Potential mechanisms?

# Bidirectional Conceptualization

## A Working Model







Potential temporal ordering identified through cross-lagged analyses of population-level longitudinal data (U.S. Panel Study of Income Dynamics)



Article

# A Qualitative Investigation of the Experiences of Tobacco Use among U.S. Adults with Food Insecurity

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**Abstract:** Background: Low-income U.S. adults experiencing food insecurity have a disproportionately high prevalence of cigarette smoking, and quantitative studies suggest that food insecurity is a barrier to quitting. To guide effective tobacco control strategies, this study aimed to understand the experiences, perceptions, and context of tobacco use and cessation among low-income populations experiencing food insecurity. Methods: We conducted in-depth, semi-structured interviews with 23 adults who were currently smoking cigarettes and were experiencing food insecurity, mostly living in rural settings. Participants were recruited through food-pantry-based needs assessment surveys and study flyers in community-based organizations. The interview guide explored participants' histories of smoking, the role and function of tobacco in their lives, their interest in and barriers to quitting, as well as lived experiences of food insecurity. We used reflexive thematic analysis to analyze transcribed interviews. Results: Within a broader context of structural challenges related to poverty and financial strain that shaped current smoking behavior and experiences with food insecurity, we identified the following five themes: smoking to ignore hunger or eat less; staying addicted to smoking in the midst of instability; smoking being prioritized in the midst of financial strain; life stressors and the difficulty of quitting smoking and staying quit; and childhood adversity at the intersection of food insecurity and tobacco use. Conclusion: The context of tobacco use among adults with food insecurity was highly complex. To effectively address tobacco-related disparities among those who are socially and economically disadvantaged, tobacco control efforts should consider relevant lived experiences and structural constraints intersecting smoking and food insecurity. Findings are applied to a conceptualization of clustering of conditions contributing to nicotine dependence, food insecurity, and stress.

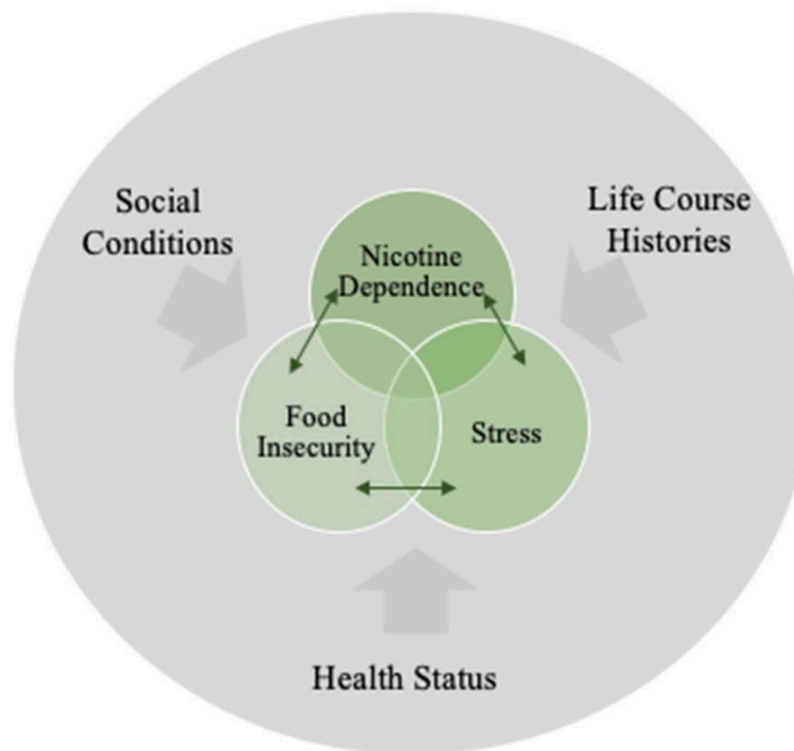
**Citation:** Kim-Mozeleski, J.E.; Shaw, S.J.; Yen, I.H.; Tsoh, J.Y. A Qualitative Investigation of the Experiences of Tobacco Use among U.S. Adults with Food Insecurity. *Int. J. Environ. Res. Public Health* **2022**, *19*, 7424. <https://doi.org/10.3390/ijerph19127424>

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## Outcomes of Clustering (Study Themes)

- Smoking as a strategy to ignore hunger or eat less
- Staying addicted to smoking in the midst of instability
- Smoking is prioritized in the midst of financial strain
- Life stressors, including adverse childhood experiences, make it difficult to quit and stay quit

# Public Health Implications & Areas for Further Research

- Importance of structural interventions to eliminate tobacco-related health disparities
  - Addressing unmet basic needs to reduce food insecurity and related stress to enhance smoking cessation
- Utilizing multiple and multilevel research methodologies



## Contact Info

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# TOBACCO CONTROL & FOOD SECURITY IN DC

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AN INITIATIVE TO SUPPORT CESSATION AND IMPROVE FOOD ACCESS

Carrie Dahlquist, MPH | May 25, 2023

# COMPREHENSIVE TOBACCO CONTROL

## The Objective

Tobacco control initiatives have been a success...

- Smoke-free laws
- Age restrictions to purchase – Tobacco 21
- Counter marketing mass media campaigns
- Cessation programs & support



# COMPREHENSIVE TOBACCO CONTROL

## The Objective

Tobacco control initiatives have been a success...

- Smoke-free laws
- Age restrictions to purchase – Tobacco 21
- Counter marketing mass media campaigns
- Cessation programs & support

*...but the benefits are not shared across all communities*

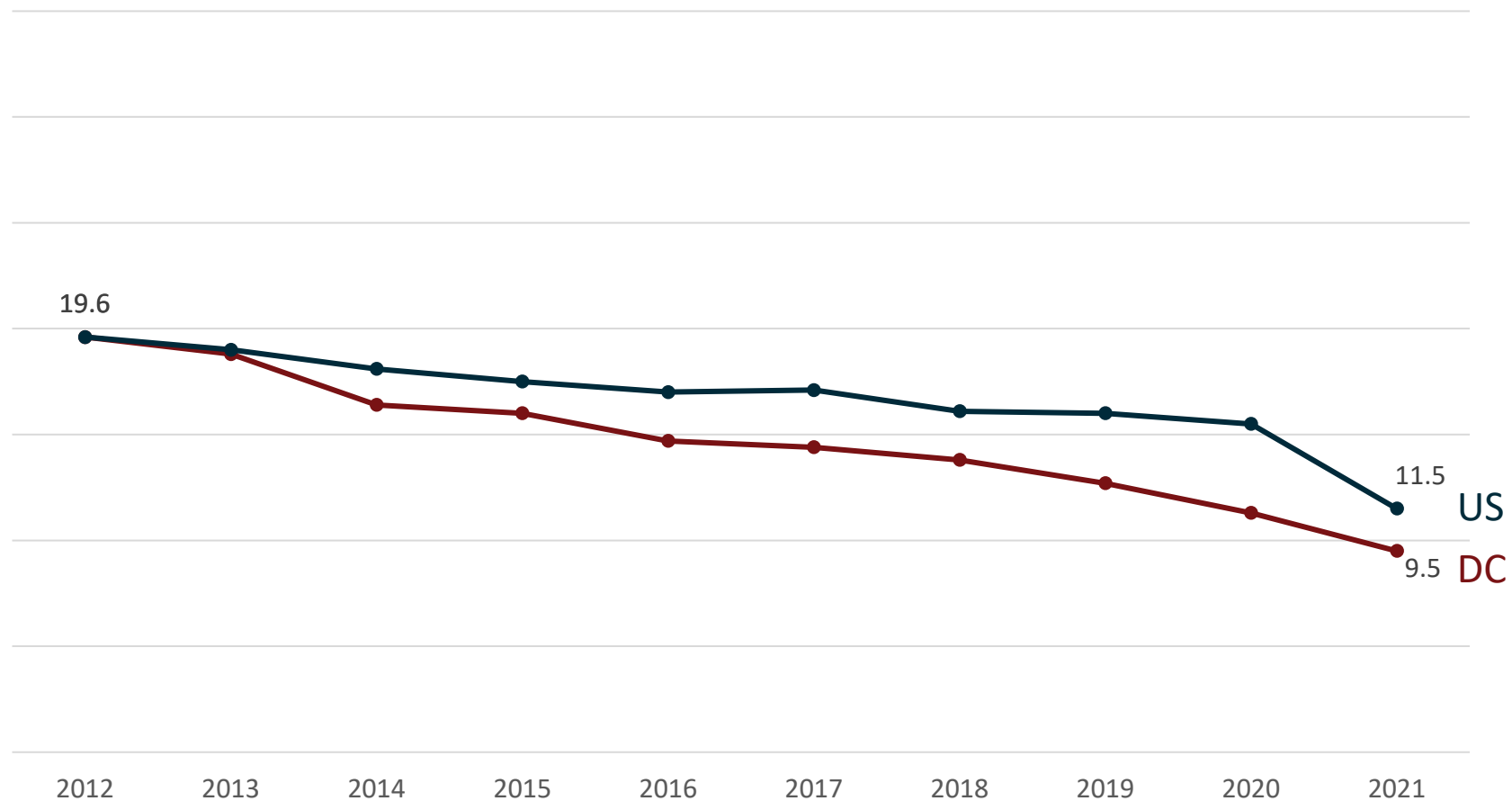
# COMMUNITY-BASED WORK

## The Mission & Objective

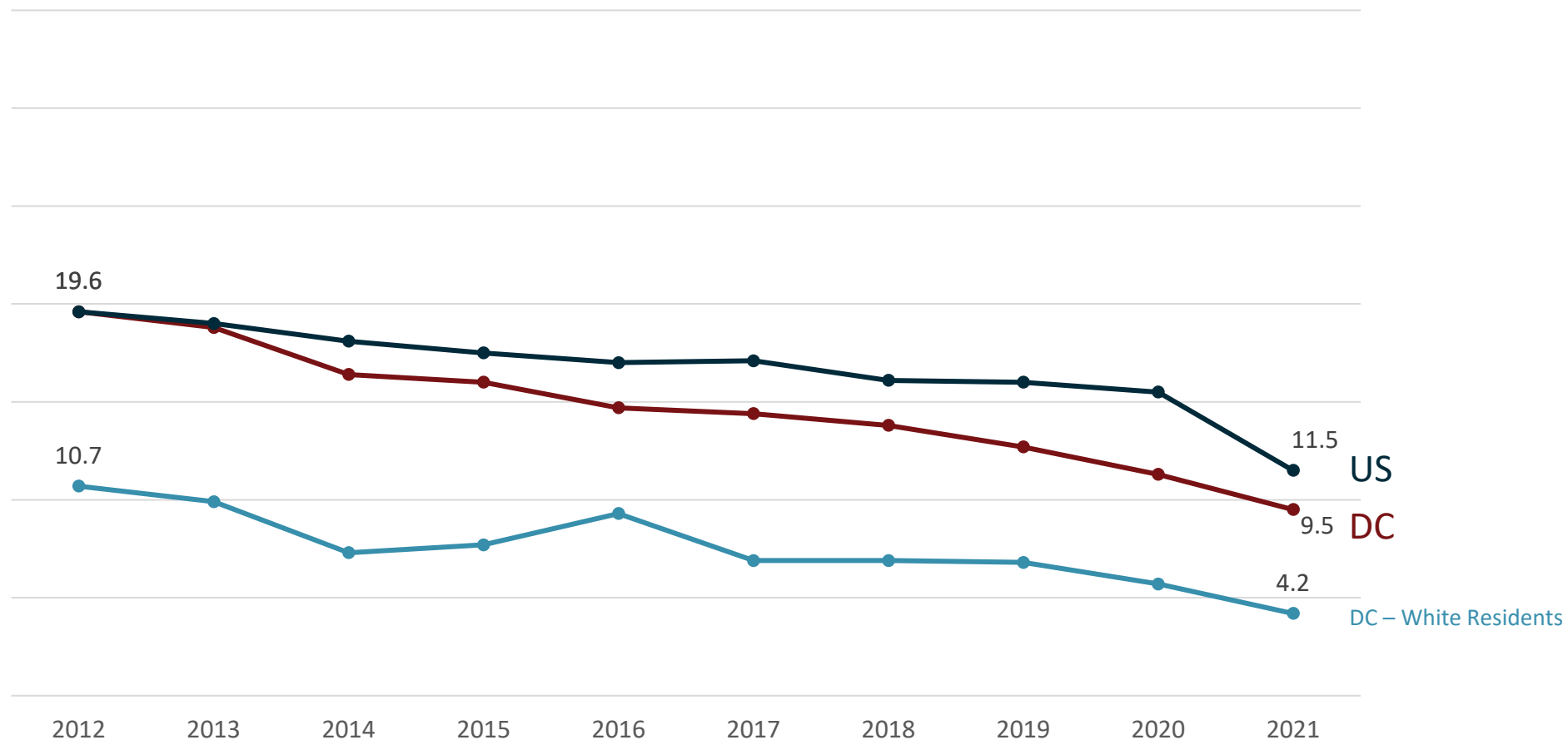
- Identify a population disproportionately affected by tobacco use
- Assess barriers to living tobacco/smoke-free
- Engage a community-based organization to serve as the local lead agency
  - Experience addressing a social determinant of health such as housing, healthcare access, food access, or job opportunities
- Implement sustainable high-reach strategies and activities to integrate tobacco control interventions in a program addressing at least one social determinant of health

*What can we add to the tobacco control toolkit to reduce tobacco-related disparities in use and health outcomes?*

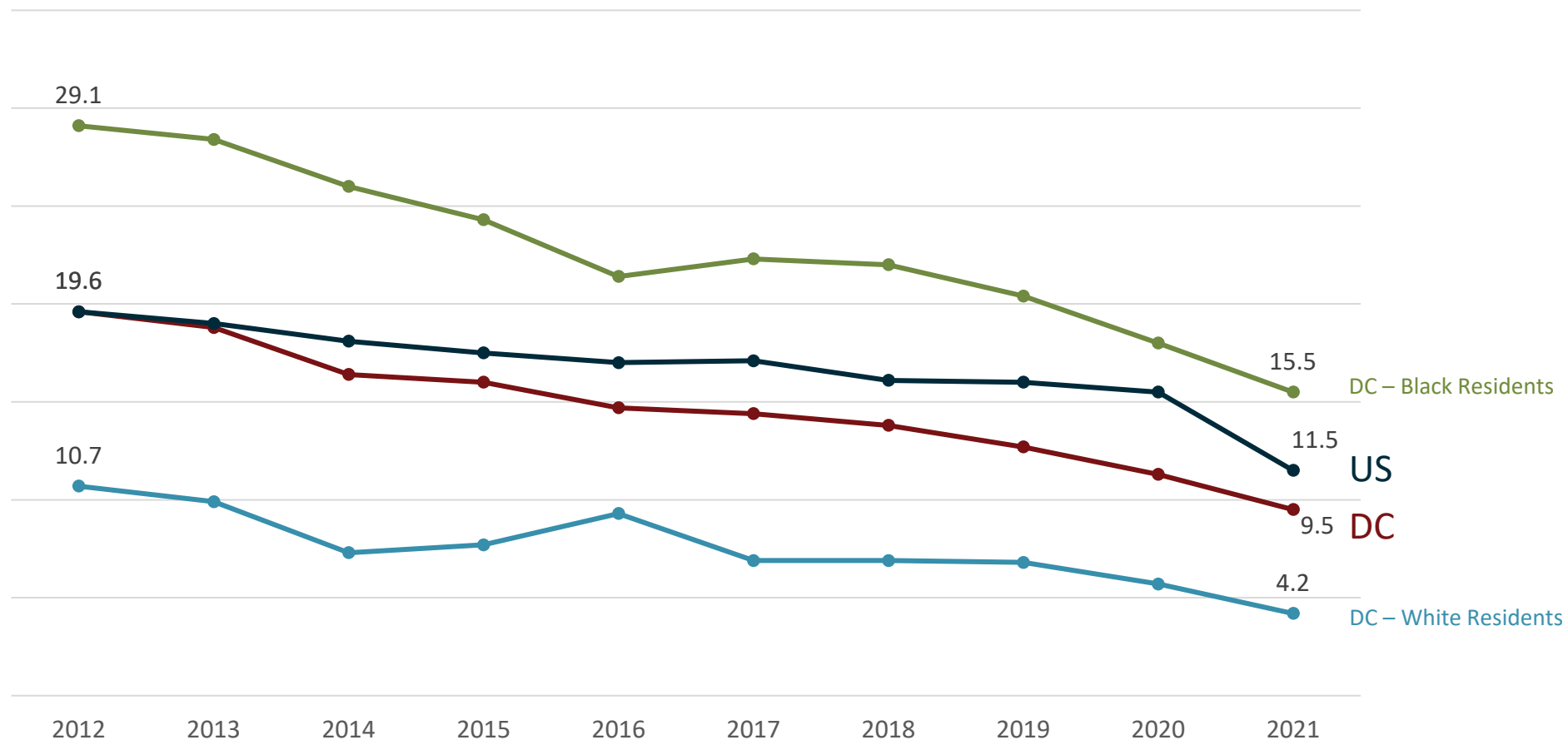
# SMOKING PREVALENCE TRENDS IN DC



# SMOKING PREVALENCE TRENDS IN DC



# SMOKING PREVALENCE TRENDS IN DC





# REDUCING DISPARITIES IN TOBACCO USE

## Drivers of Tobacco Use

- *Aggressive marketing* by tobacco companies targeting vulnerable populations
- *Environments* without strong protections against secondhand smoke
- *Social determinants of health* that create barriers to cessation and living smoke-free

*Safe Housing – Healthcare Access – **Healthy Food Access** – Job Opportunities – Education*

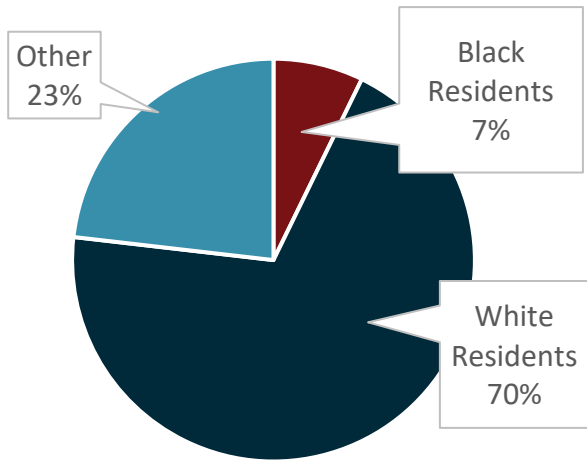
*Public Safety – Access to Social Support Services – Transportation Access – Active Living Opportunities*

*To address disparities in tobacco use, where can we have a significant impact aligned with a social determinant of health?*

# TOBACCO USE & DEMOGRAPHICS

Making the Connection

## WARD 3



**Smoking  
Rate**

--%

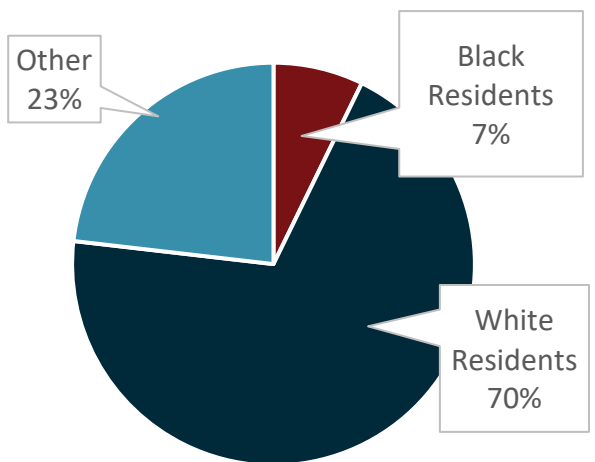
**Grocery  
Stores**

13

# TOBACCO USE & DEMOGRAPHICS

Making the Connection

## WARD 3



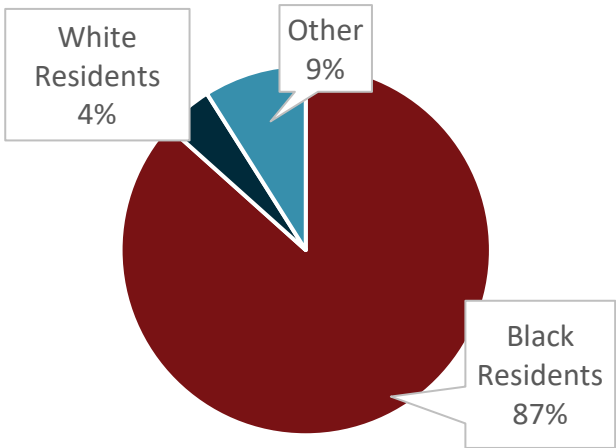
**Smoking  
Rate**

--%

**Grocery  
Stores**

13

## WARD 7



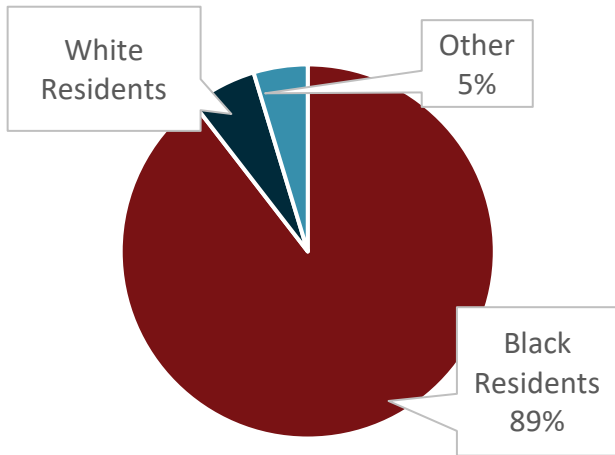
**Smoking  
Rate**

15.2%

**Grocery  
Stores**

3

## WARD 8



**Smoking  
Rate**

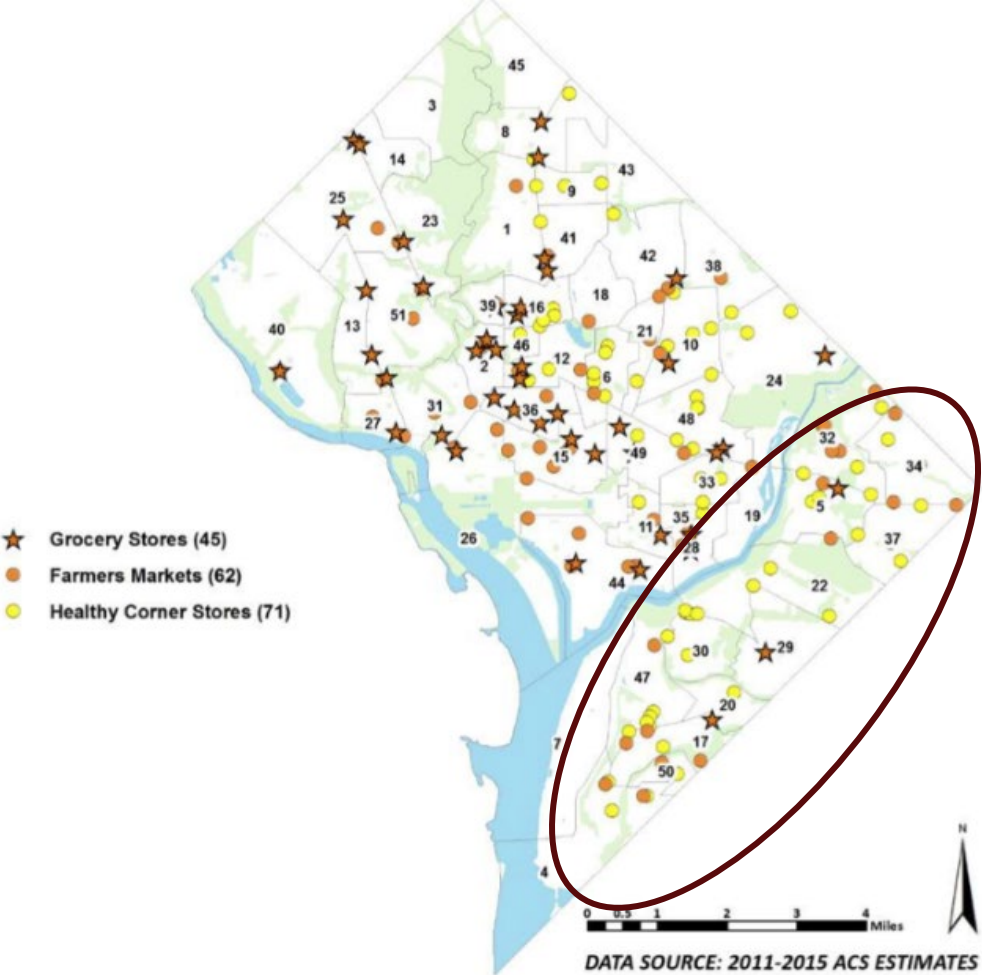
22.4%

**Grocery  
Stores**

1

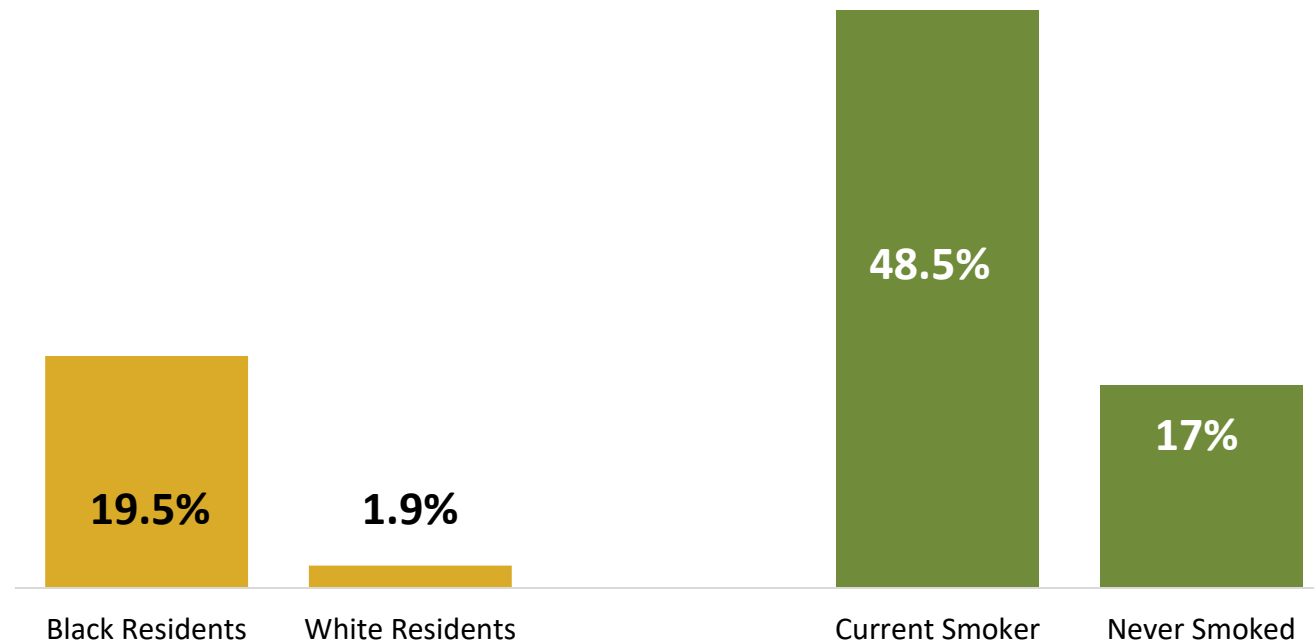
# FOOD ACCESS ENVIRONMENT

## Making the Connection



# TOBACCO USE & FOOD INSECURITY IN DC

Making the Connection





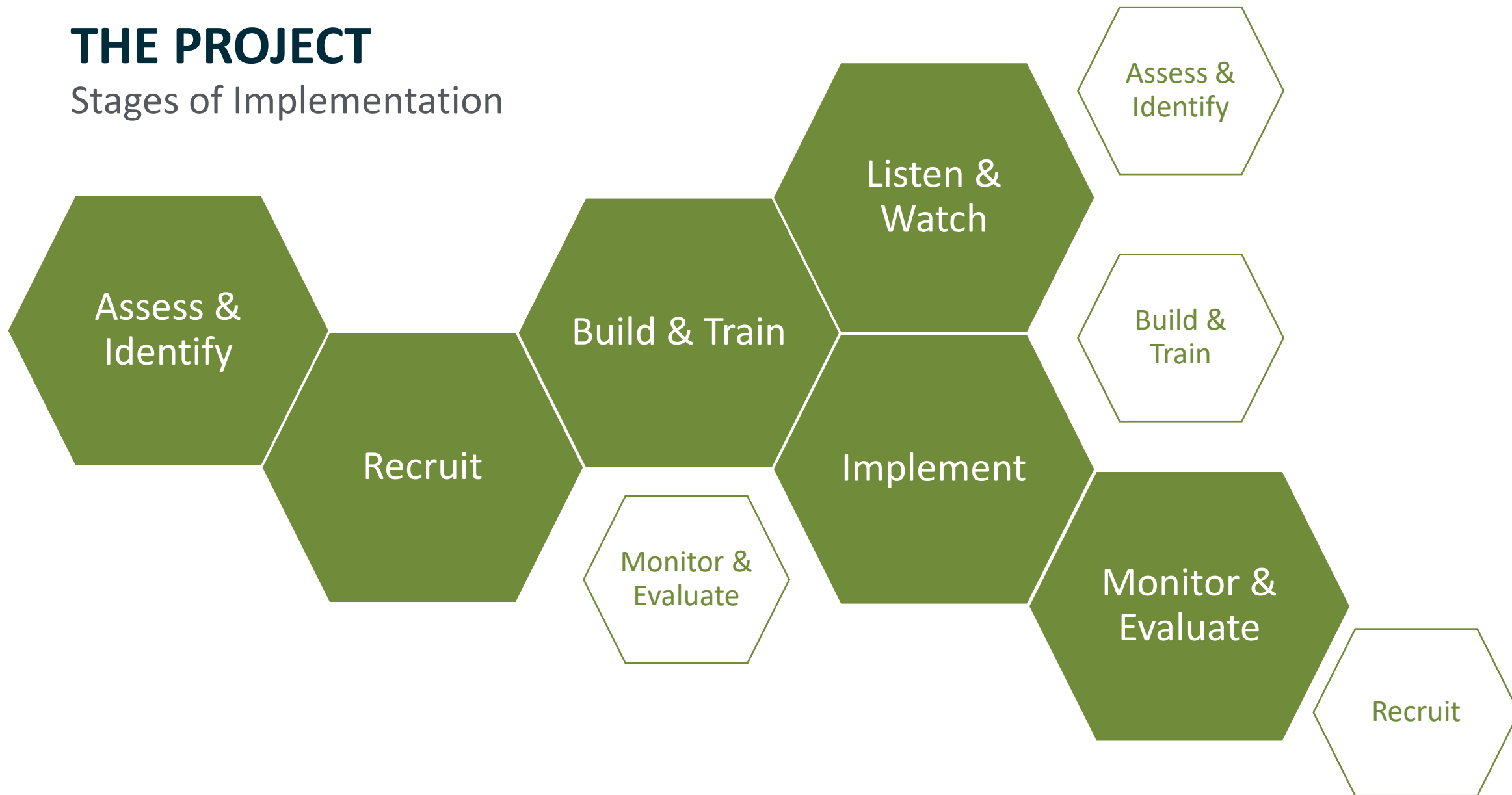
# THE PROJECT

## Addressing Tobacco Use through the Food Access Environment

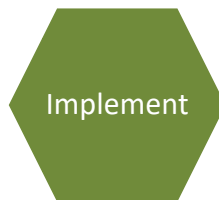
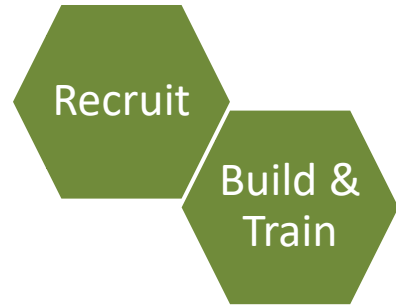
- Goal
  - Reduced disparities in tobacco use and tobacco-related health outcomes in Black DC residents
- Strategy
  - Change the social norms of tobacco use
- Objective
  - Engage non-traditional tobacco control partners working to address food insecurity
- Performance Measures
  - Process: Organizations engaged, people referred to DCQuitNow, reported quit attempts
  - Outcome: Smoking prevalence & disparity gap, food security, morbidity & mortality

# THE PROJECT

## Stages of Implementation



# WHERE WE ARE NOW: *Building the Foundation*



- Partnerships & Training/Development
  - Building the workgroup: Leadership Council for Healthy Communities (lead), DC Tobacco Free Coalition & 9 “non-traditional” partners
  - Providing capacity-building and communications technical assistance
- The Cigarette and Food Retail Environment
  - Assessing advertising, food access, tobacco product availability
- The Community
  - Listening sessions and town halls to learn about perceptions, barriers, what is needed, what works
  - Building relationships with business owners and community leaders
- DCQuitNow Cessation Services
  - Updated intake at registration to determine food security and refer to local resources

# WHERE WE ARE GOING: *Planning for Tomorrow*

Build &  
Train

- Providing Technical Assistance to Food Access Programs & Agencies
  - Understanding the connection between tobacco use & food insecurity
    - Resources, stress, appetite suppression
  - Connecting organizations to cessation resources such as DCQuitNow

Implement

- Incorporating Mass Marketing Campaign
- Community Support for Cessation & Tobacco-free Living
  - Working with faith communities, government agencies, multi-unit housing to support tobacco control initiatives and policies

Listen

Monitor  
&  
Evaluate

- Evaluation of Program Progress
  - Planning for Year 2 evaluation
    - Active partner engagement
    - Referrals to and utilization of DCQuitNow services
    - Feedback from the community: *what can we do better?*

# DESIRED OUTCOMES



- Increased utilization of DCQuitNow
- Increase quit attempts



- Decreased tobacco use among Black residents who have experienced food insecurity
- Decreased disparity of tobacco use between White and Black residents
- Decreased food insecurity among Black residents



- Improved food access environments



- *Reduced morbidity and mortality related to tobacco use*



# THANK YOU!

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Carrie Dahlquist

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# QUESTIONS

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# Stay Involved



Have you seen tobacco industry interference in public health policymaking? Email us the details at [info@ash.org](mailto:info@ash.org)!

## NEXT WEBINAR:

June 15, 2023

Combatting Tobacco Industry  
Lobbyists in Public Health

## Tools for Advocates

*Tobacco & Human  
Rights Hub*

[ash.org/hrhub](https://ash.org/hrhub)

