Youth empowerment in tobacco control: community-based participatory research in rural Indonesia

Health Education

Received 9 May 2023 Revised 1 October 2023 Accepted 19 April 2024

Heni Trisnowati

Fakultas Kesehatan Masyarakat, Universitas Ahmad Dahlan, Yogyakarta, Indonesia Abdillah Ahsan

Fakultas Ekonomi dan Bisnis, Universitas Indonesia, Depok, Indonesia, and Elisabeth Kramer

Southeast Asia Centre, University of Sydney, Sydney, Australia

Abstract

Purpose – This paper describes the planning and implementation program of Remaja Berdaya Sehat Tanpa Rokok (JayaStar) or Empower Youth Healthy without Smoking (EYHWS). This is a pilot tobacco control program for smoking behavior with a community-based participatory research (CBPR) approach in a rural area of Indonesia.

Design/methodology/approach — This research used the participatory rural appraisal (PRA) method. The paper would describe three stages of the JayaStar program that started from diagnosis, planning action and taking action. Participants in this research were all youths aged 17–25 years including as many as 33 people. The key informants were the village head, the hamlet head, the hamlet head's wife, the youth leader, health promotion officers at the Pleret Health Center and the Health Promotion Section of the Bantul Health Office.

Findings – The determinants of the youth empowerment process are divided into (1) predisposing factors, (2) group structure and (3) group climate. It has an important role in the success of the youth empowerment process in smoking behavior control. The implementation of the JayaStar program consisted of (1) outbound, and training with the theme of increasing self-potential; (2) training on the impact of cigarettes/vapors on the health of youths; (3) discussion and practice of making health campaign videos; (4) parenting program with the theme of the important role of parents in creating a healthy and superior young generation; (5) declaration and inauguration of JayaStar volunteers.

Originality/value – This research is an example of a successful community-based youth project that resulted in a demonstrable positive outcome. It demonstrates the importance of good relations between stakeholders. The JayaStar movement could be a potential model for youth empowerment projects to control smoking behavior among future generations in Indonesia.

Keywords Youth empowerment, Community-based participatory research, Tobacco control, Rural area **Paper type** Research paper

Introduction

Youth smoking rates in Indonesia are comparatively high compared to other middle-income countries. One in four youths (15–30 years) in Indonesia are smokers, and almost half of the young men have smoked in the past month (Badan Pusat Statistik-Central Statistics Agency, 2018). Efforts to prevent the uptake of smoking are required to protect young people from the harm associated with tobacco consumption. Part of these efforts includes the development of

The authors thank the youth community of Karet Hamlet (Madiska)-Pleret Sub District, the Head of Karet Hamlet and His Wife for supporting this study. The authors also thanks to Addellia Yoma Hastani, SKM Lauri Nuralita Dewi, SKM, Enge Surabina Ketaren, SKM, MKM for serving as a research assistants for the JayaStar Project.



Health Education © Emerald Publishing Limited 0965-4283 DOI 10.1108/HE-05-2023-0050 effective educational programs that promote a healthy lifestyle while also improving awareness of the risks associated with smoking. Integral to this is an empowerment strategy that can contribute to initiating social change (Backinger et al., 2003). Empowerment as a health promotion strategy can improve the health status of individuals, groups and communities (Laverack, 2006) and it is the most effective approach to preventing smoking behavior and ensuring program sustainability (Golechha, 2016).

Some examples of activities that might be undertaken using empowerment as a health promotion strategy include speaking in front of policymakers, organizing community members, writing articles in newspapers and distributing petitions (Holden *et al.*, 2004). In Indonesia, empowerment strategies have been used to initiate non-communicable disease prevention programs in Yogyakarta, Indonesia (Tetra Dewi *et al.*, 2013). Meanwhile, youth empowerment strategies in the tobacco control program of smoking behavior using participatory action research methods have never been carried out in Indonesia.

This paper outlines details and outcomes from a community-based participatory research (CBPR) project undertaken in a rural area of the province of Yogyakarta, Indonesia. CBPR is a long-established research approach that is valued in health education, public health and other health and social sciences (Wallerstein *et al.*, 2020). Recognizing society as a social and cultural entity with the active involvement and influence of community members in all aspects of the research process (Israel *et al.*, 2001; Lucero *et al.*, 2018). CBPR focuses on environmental, structural and physical injustice through the active involvement of community members, organizational representatives and researchers in all aspects of the research process (Israel *et al.*, 2001).

This paper aims to: (1) describe the determinants of youth participation in the empowerment program for tobacco control; (2) describe the planning action for youth empowerment in tobacco control programs; (3) describe the implementation of the JayaStar or EYHWS program. This puts into practice the ethos that youth involvement is an important factor in the success of health education and promotion targeting this demographic (Anyon et al., 2018). Moreover, this article explores the lessons learned through the project's development and implementation phases. The focus of empowerment throughout these stages facilitates learning about social construction and change in youths to understand their community, think about alternative futures and plan social action (Jovens, 2010).

In the last decade, individual studies on the use of CBPR, as well as systematic reviews, have increasingly documented results in the form of community support, community empowerment, sustainable partnerships, healthier behavior, policy change and health promotion. However, CBPR partnership pathways that lead to successful outcomes remain poorly understood and there is little research documenting best practices (Wallerstein *et al.*, 2020). This article aims to broach this lacuna by discussing an example of a CBPR partnership that had positive outcomes. The paper also demonstrates the importance of good relations between stakeholders. The JayaStar movement could be a potential model for youth empowerment projects to control smoking behavior among future generations in Indonesia.

Method

Study context

This study was conducted in a rural area of Bantul Regency, Yogyakarta Province, Indonesia. Yogyakarta is bordered by the Indonesian Ocean to the south and otherwise surrounded by the province of Central Java (BPS DIY, 2019). Furthermore, this research was conducted in Karet Hamlet, Pleret District, Bantul Regency, Yogyakarta.

Most of the people's livelihoods are agricultural laborers. The number of youth aged 17–25 years is 36.2%, and most of the participants attend high school. Generally, they work after graduating from high school, but some participants continue to undergraduate programs.

They come from low socioeconomic status so 72.2% of young parents earn less than IDR Health Education 1,572,150 (Minimum wage in Bantul district) (Trisnowati et al., 2020; Trisnowati et al., 2019).

Bantul Regency has regulations about smoke-free areas, namely Regent Regulation No. 18 of 2016. Moreover, Karet Hamlet is an area in Pleret District that has been declared a smoke-free home. Karet Hamlet has a youth community called Madiska (Muda Mudi Dusun Karet) as a driving force for social and religious activities (Trisnowati et al., 2020). It also has leaders who are very supportive of youth activities. A close relationship between a researcher with youth leaders and stakeholders in the Karet Hamlet has facilitated the empowerment process.

The challenge of this study is many young people are already smokers and smoking hoped to overturn this perception and discourage young people from trying cigarettes altogether. However, these leaders had no experience in developing activities to improve youth health awareness. In formulating this project and discussing desired outcomes, these leaders hoped that the empowerment strategies used would both raise awareness of the risks of smoking while also protecting the next generation of the nation.

Study design

This study used the PAR method which is also known as the action research (AR) method. PAR was a type of research that used the perspective of needs and knowledge that was prioritized through collaboration with community members during the research process (Coghlan and Brannick, 2014; Montgomery et al., 2015; Smith et al., 2010). PAR plays a role in various fields such as community development, agricultural expansion, education, health and organizational management (Lennie, 2005).

The PAR cycle is applied in the EYHWS program that includes stages: diagnosis, planning action, taking action and evaluation action (Coghlan and Brannick, 2014). Empowered youth will be easily achieved by PAR because there was the direct involvement of youths (participants) from the beginning of the research process to the evaluation. This approach is suitable for contextualizing the problems encountered in the process of developing and implementing youth empowerment in tobacco control programs (Trisnowati et al., 2020). This paper will describe three stages of the JayaStar program that start from diagnosis, planning action and taking action. The stages undertaken as part of the JayaStar program can be seen in Table 1.

Participants in this research were all youths aged 17–25 years who were willing to be involved in the program and voluntarily agreed to sign an informed consent before participating in the study. The Participants were members of the "Karangtaruna" organization—youth community in the Hamlet. In the early stages, the key informants were the village head, the hamlet head, the hamlet head's wife, the youth leader, health promotion officers at the Pleret Health Center and the Health Promotion Section of the Bantul Health Office. The number of youth involved in the study was 33 people. Meanwhile, the research team consisted of the main researcher, two research assistants and two co-researchers, namely the wife of the village head and youth community leader.

The trustworthiness of the research was carried out through three different techniques, namely: through long-term involvement in the community, peer debriefing of research participants and triangulation of resources with the research team. The main researcher and research assistants were present at regular youth meetings and youth group activities during the implementation and evaluation of empowerment programs. The main researcher creates a qualitative data matrix to be read criticized and then interpreted. Finally, the research team confirms or modifies the description of the research outcome domain.

Qualitative data processing was conducted using an open code 4.03 application. The processed qualitative data is the result of the Focus Group Discussion with the youth community. The presentation of qualitative data is in the form of tables of coding results,

HE	Research stages	Objective	Activities	Result
	Diagnosis	Describe the determinants of adolescent empowerment: (1) predisposing adolescents: motivation, the experience of involvement in smoking prevention programs, significant others, smoking environment; (2) group structure: incentives, decision-making processes, group relations, opportunities for engagement, resource support; (3) group climate: group resilience, group strength, collective efficacy, outcome efficacy	 Focus group discussions on male youth groups (6–12 people) Women's youth group discussion (6–12 people) 	Data on the Determinants of youth empowerment
	Planning action	Presenting the results of youth assessment on the domain of youth empowerment in Karet Hamlet Determine empowerment goals, strategies and resources needed, division of responsibilities Make a list of activities to increase the empowerment domain	Presentation and discussion with Madiska group	 The youth empowerment domain has been agreed Agreement on youth empowerment program planning: dummy framework for youth empowerment planning strategy Agreement on the list of activities to be carried out to increase the empowerment domain
Table 1.	Taking action	Implementing a healthy youth program without smoking or JayaStar	 Life skills training for youth: outbound boosts self-potential Training: smoking (vapor) and addiction, making videos for health campaigns Contest to make a video about the impact of smoking on the lives of teenagers Inauguration of JayaStar volunteers Declaration of healthy youth movement without Smoking (JayaStar) Parenting with the theme of the role of 	Programs that have been planned can be implemented Madiska is directly involved from planning to program implementation
A summary of JayaStar program stages: diagnosis-planning action-taking action	Source(s):	: Table created by Trisnowati (20)	parents in realizing a healthy and superior young generation 21)	

categories and research themes to make it easier to understand (Utarini, 2020). At the conclusion and verification stage, the researcher carries out the process of interpreting and determining the meaning of the available data. This research has received ethical clearance from the Ethics Committee of the Faculty of Medicine, Public Health and Nursing, Universitas Gadjah Mada No.KE/FK/1334/EC/2019.

Results

Determinants of young people's engagement in empowerment programs to control smoking behavior

This study found several determinants that influenced whether young people became involved in the program and the nature of their involvement. These included: (1) predisposing factors, (2) group structure includes, (3) group climate. These three factors played an important role in the success of the youth empowerment process in tobacco control programs. To understand the relevance of the data with the researcher's interpretation, the coding table, categories and themes of the determinants of adolescent empowerment are presented in Table 2.

Planning action of youth empowerment in tobacco control program

The discussion on empowerment planning with the youth community was attended by 33 young men and women. This meeting began with the socialization of youth empowerment programs to create a healthy and excellent generation. The content of the material includes the understanding of youth, an overview of current adolescent health, data on adolescent smokers and the importance of involving youths in tobacco control programs. The results of the discussion of the empowerment strategy plan can be seen in Table 3.

All groups emphasized the need to increase the nine empowerment domains so that Madiska's organization (youth community) could be more advanced. Outbound and training are agreed upon as activities programs. Furthermore, the Planning of outbound and training was consulted with psychologists who have experience assisting youths in organizations. The psychologist supported the proposed activities of the youth and gave some input on outbound material. Outbound was chosen as a means of refreshing and increasing the cohesiveness of Madiska members.

The outbound and training program was named by JayaStar, which stands for "Remaja Berdaya Sehat Tanpa Rokok" or Empower Youth to be Healthy without Smoking (EYHWS). This program aimed to increase the capacity of youth as agents of change, such as increasing cohesion, cooperation, leadership and creativity of participants. Outbound and training materials are as follows:

- (1) Healthy life skills for youths was an approach to improving one's psychosocial ability to meet needs and deal effectively with problems in daily life which includes social skills (self-awareness, interpersonal relationships, empathy and effective communication); thinking skills (creative thinking, critical thinking, problemsolving and decision making) and emotional skills (overcoming stress and controlling emotions) (Kemenkes RI, 2018).
- (2) The impact of smoking on the lives of youths: cigarettes and addiction, the impact of smoking on the economy and health and how to refuse an invitation to smoke (Kemenkes RI, 2017).
- (3) The material on the stages of making videos for healthy living campaigns is delivered through direct discussions with Madiska, then the practice of making videos using PowerPoint.

,	7
	panu
•	ntin
	8

Open code	Category	Core category	Theme
To have activity Happy together /get together Meet friends Could experience To advance community To advance organization To multiply member To get familiarity To get familiarity To get friends and knowledge Sending ideas Learning organization Serving community 1 year 2 years 4 years 6 years Artist/public figure Religious figures 8 hice person, smart Elderly people Knowledgeable friend Artist/public figure Religious figures Nice person, smart Elderly people Knowledgeable friend Conventional cigarette use Lots friend smoker Bectric-cigarette use Member family no smoke Majority man smoke Majority man smoke Some young people have smoked	Motivation youth organization "Madiska" Duration joined at Madiska Significant others Environment of youth	Characteristics Youth predisposing	Determinant of Youth empowerment

Table 2. Coding, category and theme determinant of youth empowerment

Open code	Category	Core category	Theme
There is no counseling for youth Anti-drug student forum Counseling for forthere	The experience involved in smoking prevention activities	Characteristics youth predisposing	Determinant of Youth empowerment
Counseing for fathers Old member	Membership status of Madiska		
New Meinoer Over 17 years Since than 50 years	Length of a family member smoking		
Since fight school high school and above over 17 years old	Age member Madiska		
Award	Incentives /rewards	Group structure	Determinant of Youth
Door prize (instant noodles, soap) Thank-you note The meeting was led by the chairman Decision-based on consensus	Decision making		empowerment
Vote There is parental support Reminded for meeting	Relationship with Adult group		
Support from community leaders Support from the community Everyone is entitled to an opinion Have equal	Opportunity to involved	Group structure	
rights	Owned resources		
Funds from the head of the hamlet Funds from the village youth organization			
Member's laptop Human Resources Donations from residents	Impact of support		
Permission activity easy	and the constant		(continued)
Table 2.			Health Education

Open code			
	Category	Core category	Theme
Activity routine always walk Make planning Make the program run Spirit rise	Group resilience	Group Climate	Determinant of Youth empowerment
Sure you can Pray for unity Walking together If there is a compact way If the meeting is not compact Collaboration to manage events Self-awareness	Group cohesion		
Self-commitment Everyone participates on the day of the event			
Activities will be successful Sure you can if it's compact Activities will be successful Sure you can do it together There is a division of roles Formed a committee and responsible	Collective efficacy		
Sure success Lack of confidence in organizational ability Lack of confidence in organizational ability It's hard to persuade people not to smoke It's difficult because some members smoke It's not good to rebuke privacy Not sure if you can invite people not to smoke Source(s): Table created by Trisnowati (2024)	Outcome efficacy		

Domain of	Initial assessment Initial	ment	Strategy development		
Empowerment	assessment	Reason	How to upgrade	Implementation	Resource
1. Youth participation in activities	XI = 0.55	Because each member has business outside the organization such as work, college Not all members have free time according to their respective activities The level of individual awareness is still lacking in attending activities Busy personal activities, don't care about the organization Lack of awareness of youth in social organizations Monotonus meeting	Create an administrator who can attract active members to the organization Make programs that are not boring so they are not monotonous Rewards Given responsibility Improved regulations, for example, giving a warning letter (SP) Creating an interesting earthering atmosphere	creating programs that involve many people Rewards in the form of a door prize or interesting snacks Become a manager Giving Warning Letter Conducting meetings in open areas (outdoor) such as outbound	- Funds, management - Money - Food and goods - Manager - Finance - Fund, Human - Resources
2. Ability to identify problems	X2 = 1.24	Many members smoke - Self-awareness/teenagers are not in sync with the current situation - Teenagers' awareness of the dangers of smoking is still lacking - Many teenagers smoke - Aware but not able to reduce smoking - Some teenagers have problem identification skills but some are less active and supportive	Raise awareness about the dangers of smoking on the body It's better to prevent than to stop smoking Conducting socialization on the dangers of smoking Increase self-awareness	Socialization No smoking during the meeting Socialization Increase socialization of the dangers of smoking	Human Resources who understand health science Human Resources, Youth Lower the price of igauid Facilitator, motivator Human Resources, Fund

Table 3.
The results of the discussion of youth empowerment strategy planning for smoking control

	Resource	Human Resources, Knowledge of leadership Funds, manpower, infrastructure Support from the community Power Human Resouces Human Resouces - Youth, Society Fund, Human Resources	(continued)
	Implementation	Leadership training Increase socialization and counseling Collaboration between organizational leaders and the community Communication and diligent discussion diligent discussion Collaborating with the whole community Hold regular meetings Go to the regular meeting Active in community activities	
Strategy development	How to upgrade	Improve management/ Leadership knowledge Community support is needed so that activities run smoothly Still need training to improve the quality of youth Improve youth skills involving community leaders in every major activity (religious activity, healthy walks) Learn from the seniors Increase cooperation between village-level organizations Active in community activities Active in community activities Organizations Active in community Active in community Active in community Attend regular meetings Organized activities for youth	
ent	Reason	There are still many policies that are not following the state of the organization To create activities, collaboration and community support are needed Some activities get support from outsiders Don't have the skills yet—Lack of support from community leaders Still lack experience and management Lots of support from outside the organization By advancing the village we must collaborate with organizations and the community There are regular meetings Motivate other teenagers who have not participated in the socialization of the dangers of smoking Organization and the community Organization and the community	
Initial assessment Initial	assessment	X3 = 2.33 $X4 = 2.16$	
Domain of	Empowerment	3. Local leadership 4. Youth organizational structure	

Domoin of	Initial assessment	nent	Strategy development		
Empowerment	assessment	Reason	How to upgrade	Implementation	Resource
5. Resource utilization 6. Relationship with organization/ individual	X5 = 1.71 $X6 = 1.83$	Human Resources already exists but distribution is not evenly distributed If there are no resources, the program will not run smoothly and resources are still limited Resources are channeled for joint activities Not many organizations have embraced or socialized Limited sources of funds and human resources The funds obtained have been disbursed properly Young People are often involved in activities carried out by other communities Lack of socialization among teenagers from outsiders Adolescents are not involved by outsiders in program development Well helped The organization is still closed There have been activities involving outside parties	Conduct training, and socialization about the organization Need support in terms of material and labor resources from the community Distribution of resources is done openly Garbage Bank, entrepreneurship, Madiska canteen Financial management training Increase cooperation with outside parties Communicating and socializing with outsiders and youth Outside parties are more embracing and inviting to the youth community in various programs Speeding up brotherhood More open with outsiders More open with outsiders	- Organizational training - Selling to earn income - Held training - Participate in programs implemented by outside parties - Respect each other's differences - Healthy walk between villages - Collaborating with outsiders	Human Resources who understand the organization Fund Manpower, infrastructure, funds Human Resources Youths Energy, infrastructure, funds Human Resources, funds funds funds
					(continued)

	Initial assessment	nent	Strategy development		
Empowerment	assessment	Reason	How to upgrade	Implementation	Resource
7. Critical thinking skills	X7 = 0.16	Because young people are not interested in the dangers of smoking We are less creative in terms of smoking socialization There has been no discussion among teenagers about the dangers of smoking There is no socialization about health, it's still limited Lack of socialization from	Raise awareness about health Conducting socialization with teenagers about smoking behavior Providing socialization on the dangers of smoking and adolescent health Socialization about the dangers of smoking	Socialization Cooperation with outsiders Socialization event on the dangers of smoking	Human Resources who understand health science Resource persons, infrastructure Manpower, infrastructure, funds
8. Program management	X8 = 1.83	The program is very monotonous and less interesting The program is carried out by youth groups that have not received training Lack of experience in	Improve organizational management Keeping in touch Sharing expertise in management	Socialization Providing training for youth groups Many friends, it's important to die	- Human Resources who understand the organization - Interviewees - Human Resources, funds
9. Relations with external parties (agencies, sponsors, etc.)	X9 = 1.50	mplementing the program Decisions get support from outside parties and facilitate organizational activities One organization has a mission so that decisions are mutually agreed upon – Continuous agents and youth Lefs be compact because there is a mutual agreement There are routine activities supported by outside agents	Increase cooperation with outside parties Deliberation Teenagers make proposals to agents/sponsors Respect other people's opinion Maintain trust between the two parties Increase collaboration and increase sponsors	Useful cooperation Compactness Honest, open to each other Looking for more sponsors	A lecturer with a health promotion background Proposal Funds, human resources, manpower

Note(s): Scale measurement 0-4. With description (0): no could accept; (1) very much no satisfactory; (2) no satisfactory; (3) satisfactory; (4) very much satisfied Source(s): Table created by Trisnowati (2024)

The taking action of "Remaja Berdaya Sehat Tanpa Rokok" (JayaStar) program The implementation of JayaStar program stage included six activities, as outlined further in the text:

1. Outbound and healthy life skills training for youths

The role of Madiska's management in this activity is to prepare event locations, facilities and infrastructure, prepare consumption, ensure the presence of Madiska members and coordinate with the head of the hamlet and his wife. Participants seemed enthusiastic during outbound and training activities. The results of the evaluation of the outbound and training activity process showed that the average value for the relevance of the training was the highest. The results of the training evaluation are presented in Appendix Figure A1.

2. Raising awareness about the impact of smoking

Madiska's management prepares infrastructure, invites participants and prepares consumption for this activity. There has been some addition of material about Covid-19 because it adjusts to the conditions of the Covid-19 pandemic which is currently a hot issue in the community. This is also following the request of Madiska's management. The material in this session contains, among others: why youths are the target of marketing cigarettes and vapors, the content of cigarettes/vapors and their effects on the body, cigarettes (vapor) and Covid 19, how to refuse an invitation to smoke and how to stop smoking (Kemenkes RI, 2017; Samidi, 2020). The results of the evaluation of the activity process show that the topics presented are by the needs of the participants. It can be seen in Appendix Figure A2.

3. Health campaign video-making training

The topic presented in this training is how to create and edit videos simply. Most of the participants are familiar with making videos so the practice process can be done independently. The video is made in a team consisting of a maximum of three people and each team is free to determine their group members. There are five videos that Madiska made and the five videos were uploaded on the social media of the Madiska organization as a tool of education for youths (Appendix Table A1).

4. Activities with parents

Topics discussed included tips for assisting children and adolescents during the COVID-19 pandemic to stay healthy and productive. Parenting activities are called "Ngobrol Santai (Ngobras) or Informal sharing. The event consists of two sessions and lasts 60 min. The first session presented the concept of holistic health, the causes of COVID-19 and how to prevent it by health promoters. Meanwhile, in the second session, it was explained the development of the youths, as well as tips for assisting youths a psychologist.

5. Follow-up planning for the JavaStar program

This discussion aims to explore the opinions of youths regarding the video produced by Madiska and discuss the continuation of the JayaStar program. The Madiska group did self-reflection, explained lessons learned during the JayaStar program and made a group follow-up planning. The matrix of the results of the discussion of the follow-up planning with Madiska can be seen in Table 4.

6. Inauguration of volunteers and declaration of the JayaStar movement

All Madiska administrators and members who actively participated in the JayaStar program from beginning to end were confirmed as JayaStar volunteers. JayaStar volunteers should be role models in healthy living behavior. The JayaStar declaration was led by the head of

HE	Group	Response to the JayaStar program and formation of "volunteers" "JayaStar"	Response to video works Madiska as an educational medium	Suggestions for contents movement JayaStar program
	1	The JayaStar program is very good because it helps youth appreciate health more by not smoking Agree to form JayaStar volunteers	Very good because it motivates smokers not to smoke	Create a smoke-free area Support the increase in cigarette prices Make positive activities Educate the public about the dangers of smoking Smoking kills you, making anti-smoking ads
	2	Strongly agree to form JayaStar volunteers because change requires role models	Strongly agree, because as a form of appreciation for the work that has been made by Madiska members	Socializing the dangers of smoking, making a move to stop smoking and giving examples of the benefits
	3	Agree to form JayaStar volunteers In our opinion according to this program, we have a responsibility to disseminate what we have learned	Social media is very useful for spreading education about the dangers of smoking, because today's generation Z spends more time on social media	Education on the dangers of smoking, inviting positive activities such as riding, community service, health checks for active and passive smokers and people who don't smoke at all, creating a smoke-free area
Table 4. Matrix the follow-up planning for the	4	Because youth play an important role as agents of healthy life change in society. Teenagers are a potential market for the cigarette industry Agree to form JayaStar volunteers	Agree that the existing messages can be conveyed to the communities so that they could aware that there was a need for a healthy life without smoking. Dissemination through social media is appropriate because this era is actively playing social media	No smoking in community gatherings Education through social media
JayaStar program	Source	(s): Table created by Trisnowati (2024)	

Madiska and followed by all participants. After the declaration, the JayaStar movement agreement was signed. The contents of the JayaStar declaration can be seen in Figure 1.

Discussion

The organizations that the participants participate in are not specifically tobacco control organizations, so participant motivation for becoming involved is varied. Most youths have never had experience in a smoking prevention program. Although most of the participants had never been involved in a smoking prevention program, they had a positive motivation in organizing. This motivation has an impact on the sincerity in participating in every activity organized by Madiska. Motivation is one of the important predisposing factors for adolescents that influence their participation in smoking prevention and control programs as stated by previous researchers (Holden *et al.*, 2004). The seriousness of being involved in the program will be different between adolescents who have the motivation to want to change the environment where have experiences of family members dying from smoking-related diseases compared to youths whose motivation is just to spend time hanging out with friends (Hajjar *et al.*, 2020; Ken-Opurum *et al.*, 2020; McMillin, 2020).

The environmental conditions around majority of participants are smokers, from the home environment to school. These environmental conditions are an obstacle for adolescents



Figure 1. Declaration of the JayaStar movement

to be involved in smoking prevention programs (Cortés et al., 2021; Suen et al., 2020). However, the involvement of participants in smoking prevention and control programs is quite good as indicated by an attendance rate of more than 75%, and engagement of participants in each activity such as discussions, meetings, etc.

The nature of the group structure encouraged participation and strengthened the empowerment process. Group structures that affect the youth empowerment process include: whether or not incentives are provided for participants who participate in organizational programs (Butterfoss, 2006; McMillin, 2020), whether or not youth are involved in the decision-making process (Butterfoss et al., 1996), the existence of better support from adult groups can increase youth participation, there are opportunities for youths to be involved or act as decision-makers, as well as the availability of resources needed in the empowerment process (Holden et al., 2004; Kirk et al., 2017; Rachmawatie et al., 2020).

Group climate factors also affect the empowerment process. Group resilience is the extent to which groups can survive when experiencing failure to achieve goals, their confidence in working when facing problems as a group that affects group climate based on reports of youths in the group (Holden et al., 2004; Laddu et al., 2021). This can be seen from the enthusiasm and confidence of the management to continue to rise from the failures that have been experienced.

The group cohesiveness was demonstrated through various activities organized by Madiska. For example, the youth prayed for the success of the activity with a spirit of togetherness. As the theory states group cohesiveness includes a situation when the group is united in achieving its goals or not and commits to achieving program goals. In addition, the length of time group members spend together at formal meetings will also strengthen group cohesiveness (Cortés *et al.*, 2021; Vetter *et al.*, 2019).

Participants have the confidence to achieve success in every activity. On the other hand, the outcome efficacy was shown that participants lacked confidence in the organization's ability to influence views about smoking. This condition becomes a common challenge and even becomes an opportunity for youth empowerment programs to prevent and control smoking behavior among youths. Collective efficacy is the belief of group members to be able to work together to achieve goals (Hajjar et al., 2020). Meanwhile, collective efficacy and outcome efficacy have a positive role in the youth empowerment process in the context of tobacco control and prevention as the theory that has been described by previous researchers (Holden et al., 2004; Macharia et al., 2016).

The development of youth empowerment strategies in smoking behavior prevention programs is carried out by making a list of activation programs to increase the empowerment domain. The agreed youth activation program aims to encourage youth who are members of the Madiska organization to become agents of change and role models in practicing a healthy lifestyle. Outbound material containing fun games has collaborated with healthy life skills education (HLSE) material for adolescent health cadres (Kemenkes RI, 2018). This material was mixed in outbound activities for prospective JavaStar volunteers.

Outbound activities and healthy life skills training for participants were well-implemented. Outbound was carried out in an open space with experiential learning as its basis. This method is more effective because the participants directly practice (Ashshiddiqi, 2019; Buchori *et al.*, 2016; Diana *et al.*, 2020; Hakim and Kumala, 2016; Susanta, 2010). A relaxed and pleasant atmosphere when outbound allows the creation of fresh ideas so that problem-solving skills are trained (Susanta, 2010). In outbound activities, participants' psychomotor, affective and cognition abilities can be touched together (Rudianto, 2010; Susanta, 2010). Briefly, youths who are equipped with healthy life skills will be able to prevent adverse effects on their health and avoid various risky behaviors (Kemenkes RI, 2018).

The material on the dangers of smoking was inserted at the end of the training session through video screenings and testimonials from former smokers so that there would be no rejection of the participants considering that some of the participants were smokers. This is reinforced by previous researchers who stated that health messages that follow community values and beliefs have a stronger impact on changing people's behavior and public policies (Dorfman *et al.*, 2005). Moreover, moral values function to legitimize public health policies and to motivate public health workers, including healthy volunteers-youth community (Andriyani, 2020; Magrath, 2017).

Madiska's videos were used as educational media and disseminated through WhatsApp groups and social media such as Instagram, YouTube and Facebook by Madiska's secretary.

These videos are the first works given by Madiska as a contribution to youth tobacco control programs. The results of this study showed relevance to other researchers who explain that interventions in groups of adolescents carried out by adolescents have proven to be effective for prevention programs for smoking behavior and the use of alcohol and marijuana (Macarthur *et al.*, 2016).

The JayaStar declaration and the inauguration of JayaStar volunteers were made as a commitment and support for the JayaStar program. The declaration is part of the process of developing a community-based health program with an empowerment strategy. Declarations have been made in other similar projects such as the development of a smoke-free house program in the city of Yogyakarta (Padmawati *et al.*, 2018) and the development of a smoke-free house program in rural areas in Bantul Regency, Yogyakarta (Trisnowati *et al.*, 2019).

Government policies related to tobacco control in the form of smoke-free areas (SFA) are more top-down, starting from the central to district levels. The reality is that the implementation of the SFA policy has not yet reached the rural level, while the number of

smokers in rural areas continues to grow and even exceeds that in urban areas. The JayaStar program is one solution to improve the current SFA policy, while the JayaStar program is bottom-up or community-based. The declaration of the JayaStar movement is an example of a community-based tobacco control policy because the content of the movement is an agreement from the community for public health in general. Furthermore, advocacy efforts are needed to encourage village governments to gradually implement SFA in their areas.

Various efforts are needed to ensure the sustainability of the empowerment program (JayaStar) including strengthening collaboration with local health institutions such as Public Health Centers and District Health Offices. The involvement of the health promotion section from Pleret Health Office since the beginning of program planning can ensure the continuity of program Jayastar. Commitment from local stakeholders such as hamlet heads and the youth organization to continue the program is also an opportunity for program sustainability. Moreover, the sustainability of the program can also be carried out through collaboration with universities on practical field learning programs for public health students. Students can carry out community assistance activities to continue the programs that have been implemented. Finally, dissemination of research results at the local and national level is also needed to influence the government and stakeholders in supporting the program.

Strengths and limitations

The JayaStar program was born from the need for youths to have a smoking behavior control program. The activation program aims to encourage youth to become agents of change and role models in practicing a healthy lifestyle. The topic of smoking prevention and control is included in the agreed programs. The health message conveyed is not directly about the dangers of smoking or smoking bans but emphasizes the importance of maintaining and improving a healthy lifestyle. Health messages are also conveyed through an approach to moral or religious values that are believed by participants to avoid public debate. This program involves the youth community directly as planners and implementers of the activation program to address the social determinants of smoking behavior to ensure the sustainability of the empowerment program.

The empowerment program can be interpreted as degrading the target (community). A good relationship between program holders and the target needs to be fostered properly so that mutual trust arises. When the target has a sense of trust and a positive view of the program holder, the program will run smoothly. The obstacle encountered in the field is that smoking control programs are prone to rejection from the community because smoking is part of the culture of the local community. Empowerment programs for smoking prevention and control are carried out carefully and do not directly address smoking issues. An example is through the approach of active participation of program holders in every community activity (youth).

Conclusion

The determinants of the youth empowerment process are divided into (1) predisposing factors, (2) group structure and (3) group climate. These three factors have an important role in the success of the youth empowerment process in smoking prevention and control programs. The development of planning action in smoking behavior control is carried out by making six of activation programs. The whole series of activities could run smoothly because of good cooperation between participants and researchers as well as commitment from stakeholders and Madiska's management.

This research is an example of a successful community-based youth project that resulted in a demonstrable positive outcome. It demonstrates the importance of good relations between stakeholders. JayaStar movement could be a potential model for youth empowerment projects to control smoking behavior among future generations in Indonesia.

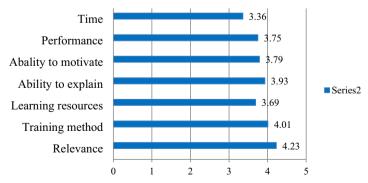
References

- Andriyani, J. (2020), "Peran Lingkungan Keluarga Dalam Mengatasi Kenakalan Remaja", At-Taujih: Bimbingan Dan Konseling Islam, Vol. 3 No. 1, p. 86, doi: 10.22373/taujih.v3i1.7235.
- Anyon, Y., Bender, K., Kennedy, H. and Dechants, J. (2018), "A systematic review of youth participatory action research (YPAR) in the United States: Methodologies, youth outcomes, and future directions", *Health Education and Behavior*, Vol. 45 No. 6, pp. 865-878, doi: 10.1177/ 1090198118769357.
- Ashshiddiqi, A.M. (2019), "Pelatihan Pengembangan Organisasi Kepemudaan Satuan Pemuda-Pemudi Dirgantara Asri (SAPDA)", *Jurnal Abdimas Madani Dan Lestari (JAMALI*), Vol. 1 No. 1, pp. 1-17, doi: 10.20885/jamali.vol1.iss1.art1.
- Backinger, C.L., Fagan, P., Matthews, E. and Grana, R. (2003), "Adolescent and young adult tobacco prevention and cessation: current status and future directions", *Tobacco Control*, Vol. 12 No. SUPPL. 4, pp. IV46-53, doi: 10.1136/tc.12.suppl_4.iv46.
- Badan Pusat Statistik-Central Statistics Agency (2018), Statistik Pemuda Indonesia 2018, Badan Pusat Statistik, Jakarta, Indonesia.
- BPS DIY (2019), "Provinsi Daerah Istimewa Yogyakarta Dalam Angka 2019", Yogyakarta: Badan Pusat Statistik Propinsi D.I. Yogyakarta/BPS-Statistics of D.I. Yogyakarta province.
- Buchori, S., Ibrahim, M. and Saman, A. (2016), "Pengaruh character education training melalui outbound training untuk peningkatan kejujuran dan integritas", *Jurnal Kajian Psikologi Pendidikan Dan Bimbingan Konseling*, Vol. 2 No. 1, p. 12, doi: 10.26858/jpkk.v2i1.2089.
- Butterfoss, F.D. (2006), "Process evaluation for community participation", *Annual Review of Public Health*, Vol. 27 April, pp. 323-340, doi: 10.1146/annurev.publhealth.27.021405.102207.
- Butterfoss, F.D., Goodman, R.M. and Wandersman, A. (1996), "Community coalitions for prevention and health promotion: factors predicting satisfaction, participation, and planning", *Health Education and Behavior*, Vol. 23 No. 1, pp. 65-79, doi: 10.1177/109019819602300105.
- Coghlan, D. and Brannick, T. (2014), Doing Action Research in Your Own Organization, SAGE Publications, available at: https://uk.sagepub.com/en-gb/eur/doing-action-research-in-your-own-organization/book240933
- Cortés, Y.I., Berry, D.C., Perreira, K.M., Stuebe, A., Stoner, L., Giscombé, C.W., Crandell, J., Santíago, L., Harris, L.K. and Duran, M. (2021), "A multi-component, community-engaged intervention to reduce cardiovascular disease risk in perimenopausal Latinas: pilot study protocol", *Pilot and Feasibility Studies*, Vol. 7 No. 1, pp. 1-16, doi: 10.1186/s40814-020-00756-1.
- Diana, D., Salasiah, S. and Fatah, M.A. (2020), "Pengembangan Karakter Diri melalui Kegiatan outbound Pada Santri Rumah Tahfidz Nur Fadhillah", PLAKAT (Pelayanan Kepada Masyarakat), Vol. 2 No. 1, p. 25, doi: 10.30872/plakat.v2i1.3821.
- Dorfman, L., Wallack, L. and Woodruff, K. (2005), "More than a message: Framing public health advocacy to change corporate practices", *Health Education and Behavior*, Vol. 32 No. 3, pp. 320-336, doi: 10.1177/1090198105275046.
- Golechha, M. (2016), "Health promotion methods for smoking prevention and cessation: a comprehensive review of effectiveness and the way forward", *International Journal of Preventive Medicine*, Vol. 7 No. 7, pp. 1-5, doi: 10.4103/2008-7802.173797.
- Hajjar, L., Cook, B.S., Domlyn, A., Ray, K.A., Laird, D. and Wandersman, A. (2020), "Readiness and relationships are Crucial for coalitions and collaboratives: concepts and evaluation tools", New Directions for Evaluation, Vol. 2020 No. 165, pp. 103-122, doi: 10.1002/ev.20399.
- Hakim, A. and Kumala, F. (2016), "Pengembangan karakter melalui kegiatan outbound", *Jurnal Moral Kemasyarakatan*, Vol. 1 No. 2, pp. 173-182.
- Holden, D.J., Messeri, P., Evans, W.D., Crankshaw, E. and Ben-Davies, M. (2004), "Conceptualizing youth empowerment within tobacco control", *Health Education and Behavior*, Vol. 31 No. 5, pp. 548-563, doi: 10.1177/1090198104268545.

- Israel, B.A., Schulz, A.J., Parker, E.A. and Becker, A.B. (2001), "Community-based participatory research: policy recommendations for promoting a partnership approach in health research", *Education for Health*, Vol. 14 No. 2, pp. 182-197, doi: 10.1080/13576280110051055.
- Jovens, P. (2010), "A guide to the literature on participatory research with youth Annika Ollner", MSW Student. Strategies, (June).
- Kemenkes, R.I. (2017), "Hidup Sehat Tanpa Rokok", in Kementrian Kesehatan Indonesia, Kementerian Kesehatan Republik Indonesia, Jakarta, Indonesia, available at: http://p2ptm.kemkes.go.id/uploads/VHcrbkVobjRzUDN3UCs4eUJ0dVBndz09/2017/11/Hidup_Sehat_Tanpa_Rokok.pdf
- Kemenkes, R.I. (2018), *Buku KIE Kader Kesehatan Remaja*, Kementerian Kesehatan Republik Indonesia, lakarta, Indonesia.
- Ken-Opurum, J., Darbishire, L., Miller, D.K. and Savaiano, D. (2020), "Assessing rural health coalitions using the public health logic model: a systematic review", American Journal of Preventive Medicine, Vol. 58 No. 6, pp. 864-878, doi: 10.1016/j.amepre.2020.01.015.
- Kirk, C.M., Lewis, R.K., Brown, K., Karibo, B., Scott, A. and Park, E. (2017), "The empowering schools project: identifying the classroom and school characteristics that lead to student empowerment", Youth and Society, Vol. 49 No. 6, pp. 827-847, doi: 10.1177/0044118X14566118.
- Laddu, D., Paluch, A.E. and LaMonte, M.J. (2021), "The role of the built environment in promoting movement and physical activity across the lifespan: implications for public health", *Progress in Cardiovascular Diseases*, Vol. 64, pp. 33-40, doi: 10.1016/j.pcad.2020.12.009.
- Laverack, G. (2006), "Improving health outcomes through community empowerment: a review of the literature", *Journal of Health, Population and Nutrition*, Vol. 24 No. 1, pp. 113-120, available at: http://www.jstor.org/stable/23499274
- Lennie, J. (2005), "An evaluation capacity-Building process for sustainable community IT Initiatives: empowering and disempowering impacts", *Evaluation*, Vol. 11 No. 4, pp. 390-414, doi: 10.1177/1356389005059382.
- Lucero, J., Wallerstein, N., Duran, B., Alegria, M., Greene-Moton, E., Israel, B., Kastelic, S., Magarati, M., Oetzel, J., Pearson, C., Schulz, A., Villegas, M. and White Hat, E.R. (2018), "Development of a mixed methods investigation of process and outcomes of community-based participatory research", *Journal of Mixed Methods Research*, Vol. 12 No. 1, pp. 55-74, doi: 10.1177/1558689816633309.
- Macarthur, G.J., Sean, H., Deborah, M.C., Matthew, H. and Rona, C. (2016), "Peer-led interventions to prevent tobacco, alcohol and/or drug use among young people aged 11-21 years: a systematic review and meta-analysis", *Addiction*, Vol. 111 No. 3, pp. 391-407, doi: 10.1111/add.13224.
- Macharia, J.W., Ng'Ang'A, Z.W. and Njenga, S.M. (2016), "Factors influencing community participation in control and related operational research for urogenital schistosomiasis and soil-transmitted helminths in rural villages of Kwale county, coastal Kenya", Pan African Medical Journal, Vol. 24, pp. 1-8, doi: 10.11604/pamj.2016.24.136.7878.
- Magrath, P. (2017), "2017 working paper series", Vol. 1, pp. 1-8, available at: https://iif.or.id/wp-content/uploads/2017/10/01-Magrath-Priscilla-Moral-Pluralism-in-Health-Governance.pdf
- McMillin, S.E. (2020), "Community coalition kick-off events: lessons learned on the launchpad", Families in Society: The Journal of Contemporary Social Services, Vol. 102 No. 2, pp. 104438942090776-277, doi: 10.1177/1044389420907764.
- Montgomery, A., Doulougeri, K. and Panagopoulou, E. (2015), "Implementing action research in hospital settings: a systematic review", *Journal of Health, Organisation and Management*, Vol. 29 No. 6, pp. 729-749, doi: 10.1108/JHOM-09-2013-0203.
- Padmawati, R., Prabandari, Y., Istiyani, T., Nichter, M. and Nichter, M. (2018), "Establishing a community-based smoke-free homes movement in Indonesia", *Tobacco Prevention and Cessation*, Vol. 4, November, 36, doi: 10.18332/tpc/99506.
- Rachmawatie, D., Rustiadi, E., Fauzi, A. and Juanda, B. (2020), "Driving factors of community empowerment and development through renewable energy for electricity in Indonesia", *International Journal of Energy Economics and Policy*, Vol. 11 No. 1, pp. 326-332, doi: 10.32479/ijeep.10533.

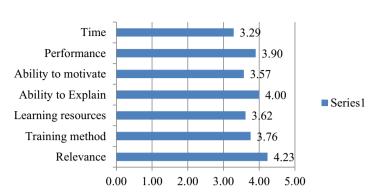
- Rudianto (2010), "Mengubah perilaku dengan outbond training", Yogaykarta: Penerbit Andi.
- Samidi, N. (2020), "Rokok Elektronik Makin Kenal Makin Enggan", Jakarta, Indonesia.
- Smith, L., Rosenzweig, L. and Schmidt, M. (2010), "Best practices in the reporting of participatory action research: embracing both the forest and the Trees", *The Counseling Psychologist*, Vol. 38 No. 8, pp. 1115-1138, doi: 10.1177/0011000010376416.
- Suen, J., Attrill, S., Thomas, J.M., Smale, M., Delaney, C.L. and Miller, M.D. (2020), "Effect of student-led health interventions on patient outcomes for those with cardiovascular disease or cardiovascular disease risk factors: a systematic review", BMC Cardiovascular Disorders, Vol. 20 No. 1, pp. 1-10, doi: 10.1186/s12872-020-01602-1.
- Susanta, A. (2010), Outbond Profesional: Pengertian, Prinsip Perancangan Dan Panduan Pelaksanaan, Penerbit Andi, Yogyakarta.
- Tetra Dewi, F.S., Stenlund, H., Utari Marlinawati, V., Öhman, A. and Weinehall, L. (2013), "A community intervention for behaviour modification: an experience to control cardiovascular diseases in Yogyakarta, Indonesia", *BMC Public Health*, Vol. 13 No. 1, p. 1043, doi: 10.1186/1471-2458-13-1043.
- Trisnowati, H., Kusuma, D., Ahsan, A., Kurniasih, D. and Padmawati, R. (2019), "Smoke-free home initiative in Bantul, Indonesia: development and preliminary evaluation", *Tobacco Prevention and Cessation*, Vol. 5, November, pp. 1-5, doi: 10.18332/tpc/113357.
- Trisnowati, H., Ismail, D., Padmawati, R.S. and Utarini, A. (2020), "Developing a framework for youth empowerment to prevent smoking behavior in a rural setting: study protocol for a participatory action research", *Health Education*, Vol. 121 No. 1, pp. 30-47, ahead-of-p(ahead-of-print), doi: 10. 1108/HE-06-2020-0045.
- Utarini, A. (2020), *Penelitian Kualitatif Dalam Pelayanan Kesehatan*, Gadjah Mada University Press, Yogyakarta.
- Vetter, M.K., Schreiner, L.A., Mcintosh, E.J., Learning, C. and Dugan, J.P. (2019), "Co-curricular involvement experiences to promote student thriving", *Journal of Campus Activities and Scholarship*, Vol. 1 No. 1, pp. 39-51.
- Wallerstein, N., Oetzel, J.G., Sanchez-Youngman, S., Boursaw, B., Dickson, E., Kastelic, S., Koegel, P., Lucero, J.E., Magarati, M., Ortiz, K., Parker, M., Peña, J., Richmond, A. and Duran, B. (2020), "Engage for equity: a long-term study of community-based participatory research and community-engaged research practices and outcomes", *Health Education and Behavior*, Vol. 47 No. 3, pp. 380-390, doi: 10.1177/1090198119897075.

Appendix 1



Source(s): Figure created by Trisnowati and Heni (2021)

Figure A1. Outbound evaluation results and training



Source(s): Figure created by Trisnowati and Heni (2021)

Health Education

Figure A2.
The results of the evaluation of the socialization of cigarettes (vapor) and Covid-19

No	Build team	Synopsis	
1	Group 1	We take the initiative to make this video to wake up people specifically youth that cigarettes are gate going to diseases	
0	C 9	Link: https://www.instagram.com/tv/CIXReI9DFJE/?utm_source=ig_web_copy_link	
2	Group 2	This video showed the differences of opinion between smokers and non-smokers regarding smoking behavior. Link: https://www.instagram.com/tv/CIUzgdeD5Ks/?utm_source=ig_web_copy_link	
3	Group 3	If your life is filled with cigarette smoke, you have only two choices: get life insurance or start walking away from it. Stop smoking now before the organs of the body do not function Let's live healthy without smoking. Link: https://www.instagram.com/tv/CIX_aiYDJPu/?utm source=ig web copy link	
4	Group 4	How to refuse a friend's invitation to smoke. Link: https://www.instagram.com/tv/CIYawDVDz0h/?utm_source=ig_web_copy_link	
5	Group 5	"Stop enjoying cigarettes, before smoking enjoys you" Protect yourself and others around you by quitting smoking. Link: https://www.instagram.com/tv/CIYMAAuDl3r/?utm_source=ig_web_copy_link	
Sou	rce(s): Tabl	le created by Trisnowati (2024)	

Table A1. List of educational videos created by Madiska

About the authors

Heni Trisnowati is a doctor in public health, especially in the field of Health Promotion and community empowerment. She is a lecturer at the Faculty of Public Health, Universitas Ahmad Dahlan (UAD) Yogyakarta, Indonesia. She is responsible for teaching health promotion, qualitative methodology, health research methods, evidence-based health promotion, interpersonal communication and advocacy and health promotion media. Her research interest is in tobacco control, smoking prevention, mental health and non-communicable diseases. Heni Trisnowati is the corresponding author and can be contacted at: heni.trisnowati@pascakesmas.uad.ac.id

Abdillah Ahsan currently works at the Faculty of Economics and Business, University of Indonesia. Abdillah conducts research on Tobacco Control Economics and Politics in Indonesia. His disciplines of interest include Public Finance, Public Economics, Quantitative Social Research, Qualitative Social Research and Social Policy.

HE

Elisabeth Kramer is deputy director at the Sydney Southeast Asia Centre University of Sydney, Australia, and an honorary associate at the School of Languages and Culture. Elisabeth began her academic career researching anticorruption in Indonesian elections but her research interests have since broadened, sitting at the scholarly intersection between politics, policy and interest-based advocacy in Indonesia. Her current research projects focus on tobacco industry regulation, opioid policy and sociopolitical inclusion for people with disabilities.