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# A LONG AND WINDING ROAD OF THE TOBACCO-FREE AREAS IMPLEMENTATION IN SEMARANG

## Perjalanan Panjang dan Berliku Penerapan Kawasan Tanpa Rokok di Kota Semarang

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## Abstract

**Background:** The Tobacco-Free Areas (TFA) policy is an effective way to control the negative effects of smoking on the community, especially passive smokers. Semarang has had a TFA policy since 2013. However, some people still smoke freely in some areas, such as workplaces, kindergartens, and other public places.

**Aims:** Identifying the implementation of Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas.

**Methods:** This was qualitative research using the case study method. Data were collected using in-depth interviews with some key informants according to the inclusion criteria. Triangulation was conducted through observation and in-depth interviews with some informants. Data were analyzed using content analysis.

**Results:** Some violations still mainly occurred at the workplace and educational places, including government offices and schools. Violations happened due to inadequate support of the office's heads, insufficient workers and the society's awareness, policy rejection, inadequate financial support, lack of media exposure, and obscurity of the regulation articles, which led to misinterpretation. For example, Article 7 verse 3 states that the TFA regulation will be regulated by a mayor's decree. This statement weakens the regulation itself since the mayor's decree is not as strong as the local regulation.

**Conclusion:** The implementation of Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas has not been carried out properly in all TFA areas. Violations were still found in many areas.

**Keywords:** regulation, secondhand smokers, smoking, tobacco-free areas

## Abstrak

**Latar Belakang:** Kebijakan Kawasan Tanpa Rokok (KTR) adalah cara yang efektif untuk mencegah dampak negatif dari rokok pada perokok pasif. Kota Semarang telah memiliki Peraturan Daerah (Perda) untuk KTR sejak tahun 2013. Namun, peraturan ini belum dilaksanakan dengan baik. Pelanggaran masih terjadi di beberapa Kawasan, seperti tempat kerja, taman anak-anak, dan tempat umum lainnya.

**Tujuan:** Mengidentifikasi pelaksanaan Peraturan Daerah Kota Semarang No. 3 Tahun 2013 tentang Kawasan Tanpa Rokok.

**Metode:** Merupakan penelitian kualitatif menggunakan metode studi kasus. Pengumpulan data dilakukan dengan metode wawancara mendalam pada beberapa informan. Data dianalisis dengan analisis konten.

**Hasil:** Pelanggaran pada pelaksanaan Perda KTR masih terjadi. Pelanggaran paling banyak terjadi di Kawasan Tempat Kerja dan Kawasan Pendidikan, termasuk kantor pemerintahan dan sekolah-sekolah. Pelanggaran terjadi karena kurangnya dukungan dari pimpinan instansi, kurangnya kesadaran dari pekerja dan masyarakat, penolakan terhadap pelaksanaan Perda, kurangnya dukungan finansial, kurangnya publikasi media, dan ketidakjelasan salah satu pasal pada Perda yang membuat misinterpretasi pada pelaksanaan Perda itu sendiri. Pada pasal 7 ayat 3 menyatakan bahwa pemberlakuan Perda KTR akan ditetapkan dengan Keputusan Walikota. Ayat ini melemahkan Perda itu sendiri karena Surat Keputusan Walikota tidak sekuat Peraturan Daerah.

**Kesimpulan:** Pelaksanaan Perda KTR belum dilaksanakan dengan baik di seluruh Kawasan Tanpa Rokok di Kota Semarang. Pelanggaran terhadap Perda KTR masih banyak ditemukan.

**Kata kunci:** Kawasan Tanpa Rokok (KTR), merokok, peraturan daerah, perokok pasif



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## Introduction

In 2015, more than 1.1 million people worldwide were smokers. Indonesia is one of the countries with the highest number of smokers in the world (WHO, 2015). Based on the Basic Health Research 2013, 36.3% of Indonesian smokers were 15 years old and over. It is worsened by the fact that 1.4% of them were 10-14 years old. These data indicate that smokers in Indonesia start smoking at a very early age. The Basic Health Research 2013 also shows that 9.9% of smokers were unemployed, and 32.2% were in the lowest income quintile group. The average number of cigarettes Indonesians smoke was around 12.3 cigarettes daily or equivalent to a pack of cigarettes a day, and Bangka Belitung Province was reported to have the highest cigarette consumption, as many as 18.3 cigarettes or equivalent to 1.5 packs of cigarettes a day (Ministry of Health, 2013). In addition, Basic Health Research 2018 reported that the prevalence of smokers among those  $\geq 10$  years old in Indonesia was 28.8%, and 9.1% among 10-18 years old (Ministry of Health, 2018).

Smoking can endanger the health of smokers and others who inhale the smoke, often referred to as passive smokers (Khoramdad *et al.*, 2020). The Global Adults Tobacco Survey in Indonesia in 2011 found that out of five respondents, four of them were passive smokers who were exposed to smoke at home, and four of five passive smokers were exposed to smoke at restaurants (WHO, 2011).

Cigarette smoke contains 7,000 chemicals, with at least 250 harmful chemicals for the body, including hydrogen cyanide, carbon monoxide, and ammonia. Of the 250 dangerous chemicals, 69 chemicals can trigger cancers in the lungs, esophageal, laryngeal, mouth, throat, kidney, uterus, liver, pancreas, stomach, cervix, colon, rectum, and acute myeloid leukemia. These chemicals are detrimental to passive smokers (U.S. Food and Drug Administration, 2020; Cancer Research UK, 2021).

An optimal quality of people's lives may be achieved with a high degree of health condition. Therefore, the state must

perform integrated and comprehensive health efforts for its citizens. Realizing the efforts, the Semarang city government has made regulations and is expected to protect community health. For example, it regulates the limitation of smoking activity to provide rights to the community's health. In 2009, the Semarang city government stipulated Tobacco-Free Areas (TFA) through the Mayor Regulation Number 12 of 2009 concerning Non-Smoking Areas and Limited-Smoking Areas. However, the implementation of this regulation is considered ineffective due to the lack of commitment of the implementers (Kompas, 2009). From the first evaluation of this regulation, the TFA policy has been re-strengthened through local regulations to expand the regulatory coverage and further strengthen the regional government's commitment. This regulation is known as the Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas.

Several studies have shown that the implementation of the TFA policy is an effective way to reduce smoking behavior and provide clean air to the community (Levy *et al.*, 2018; Feliu *et al.*, 2019). However, the local government regulation has not been implemented optimally as people still smoke freely in many public places, such as workplaces, playgrounds, and other public places (Handayani *et al.*, 2020; Simaibang and Kismartini, 2016). Recognizing this evolving problem, this study aimed to identify the implementation of Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas.

## Method

This was descriptive research using a quasi-qualitative approach. Data were collected through in-depth interviews in late 2018. Informants involved in this study fulfilled the inclusion criteria, such as they should be the implementers of Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas as mentioned in Mayor's Decree No. 440/423/2015. Informants were interviewed by the researchers using Bahasa

Indonesia, and sometimes it was mixed with Javanese. The interview process was noted and recorded according to the informants' agreement. In-depth interviews were conducted with seven key informants, three of whom represented those from educational institutions, three others were from government offices, and the others were from a healthcare facility. All informants were the implementers of the TFA regulation in Semarang City.

The results of the interviews were then transcribed. After that, the transcriptions were simplified, sorted, and coded. Then, the data were displayed, presented, and concluded. After that, the other researchers rechecked to ensure the data and conducted the content analysis by comparing it with the triangulation result.

Validity and reliability were confirmed through triangulation. The triangulation was done through observation and in-depth interviews with three informants who were the supervisory team members from educational institutions, government offices, and a healthcare facility. Observations were conducted in 35 places, including seven areas of concern in the TFA regulation. Each of the areas was observed for as many as five places. The seven areas of concern were educational institutions including, junior high schools, senior high schools, and vocational high schools; working areas including, governmental institutions; public areas, including traditional markets, tourist attractions, and the mall; health care facilities, including a health center, public health care center, and hospital; worship areas including mosques, churches, pagodas, and monasteries; children's playground areas; and public transportation areas including train stations and bus stations. Observations were done at approximately the same time to reduce bias. Each place was divided into 4 to 10 spots, depending on the building area, the number of rooms, and the visibility limit. The observations were conducted for 10 minutes at each spot by observing the positive and negative indicators.

## Result and Discussion

In 2009, the Semarang City's Government established TFA through Mayor Regulation Number 12 of 2009 concerning Tobacco-Free Areas and Limited Smoking Areas. However, the implementation of this regulation was considered ineffective due to the lack of commitment from the implementers. Therefore, the determination of the TFA was strengthened again by making the Regional Regulations to expand the regulatory reach and further strengthen regional commitment. This regulation is known as Semarang City Regional Regulation Number 3 of 2013 concerning Tobacco-Free Areas, which was placed in the 2013 Semarang City Regional Gazette Number 3.

One of the articles of the TFA regulation contained a paragraph stating that the implementation of the Local Regulation of Semarang City No. 3 of 2013 was further regulated by the Mayor's Decrees, namely in Article 7 concerning the Establishment of a Smoking Area in paragraph (3). This paragraph says, "The enforcement of Tobacco-Free Areas in places or areas as referred to in paragraph (2) shall be stipulated by a Mayor's Decree." Thus, the Mayor's Decree No. 440/423/2015 was issued regarding the Stipulation of TFA in Semarang City which regulated, only three focus Tobacco-Free Areas, such as health service facilities, educational places, and government offices in Semarang City. Since then, until this study was conducted, no other mayor's decree regulated the other five Tobacco-Free Areas.

Another Mayor's Decree No. 440/501/2015 was the derivative of the local government regulation concerning formulating a supervision team from 2015-2016. It was the Mayor's Decree No. 440/501/2015. This decree regulates the supervision team of Local Regulation of Semarang City Number 3 of 2013, but the service period was only for 2015-2016. By the time this study was conducted, no amendment or new regulation replaced the expired regulation of the supervision team. Therefore, this study considers that the derivative regulation, the mayor's decree,

weakened the local government regulation of TFA.

### The Implementation of TFA Regulation in Semarang City

The district health office mentioned that the TFA regulation was first applied in three areas, including educational places, healthcare facilities, and government offices. However, only two areas, namely educational places and healthcare facilities, had the best implementation.

*"Until now, out of 7 areas, only 2 have well-performed TFA regulation. These include health facilities and educational places..."* (Informant 1, Government Agencies)

This was in line with the Mayor's Decree of Semarang City No. 440/423/2015 concerning the stipulation of TFA in Semarang that regulates the focus of three tobacco-free areas, such as healthcare facilities, educational places, and government offices.

Several informants also mentioned the enabling factors, such as the lack of smoking room availability. It was consistent with the observation results that showed only 8 out of 35 places (22.86%) have smoking areas. The eight places were included only in three areas, which are the government office area, public transportation area, and public places.

Another crucial enabling factor was financial support. For example, in implementing TFA, some informants hoped that the government would provide smoking areas in certain places. However, there was no budget to build smoking areas since it contradicted public health principles. In addition, funding for policy enforcement existed, but it was considered insufficient. The government required a larger budget to carry out more frequent and repetitive efforts in regulation implementation. Currently, the civil service police unit receives a budget of IDR 500,000,000 per year to enforce the implementation of the TFA regulation in Semarang City (2018).

The lack of financial support also affected other aspects of the TFA implementation, such as the smoking ban

signs, media for the risks of smoking information, and, most importantly, media for the TFA regulation information, including the penalties. For example, the observations showed that only 57.14% of places had smoking ban signs, only 22.86% had media for the risks of smoking information, and only 28.57% had media for the TFA regulation information.

Low awareness of government officials and the community might impede the success of the regulation implementation. Generally, people did not dare to remind and reprimand each other when they saw someone smoking in regulated places. It could also be an act of avoiding being mistreated by violators.

*"...people just read and do not want to take any actions. Avoiding smoking in a prohibited place (the awareness) should be from the individuals who take care of each other and obey the rules...If, if someone else knows, he or she is asked to remind them...If there is an incident that the person who reminds the violator is being mistreated, the government needs to provide protection..."*(Informant 6, Educational Institutions)

Indeed, the TFA regulation has been disseminated by various institutions that have participated in the regulation drafting agenda. For example, the district health office conducted outreach services to schools and government institutions by collaborating with the legal department, civil service police unit, and environmental services. Smoking bans should be posted on TFA information signs in several areas. However, the informants considered the promotion was not robust yet as they did not know about this regulation. This finding was in line with the statement of the triangulation informant below.

*"The government must be more aggressive in informing and approaching the community to talk together. So, based on that, it will become our foothold to move directly..."* (Informant 10, Supervisory Team)

## The Implementation of TFA Regulation within the Institutions

The implementation of TFA regulation was implemented in almost all areas studied, although it still had some flaws. For example, signs of a smoking ban had been installed in the areas. The following were statements from several informants regarding the implementation of the TFA regulation.

*"... Maybe you can see there are banners and stickers everywhere. We try to post non-smoking signs everywhere...even in the room. If we smell cigarette smoke, we will directly reprimand and give a fine as the penalty to the smoker"* (Informant 7, Health Care Facility)

However, some informants stated that their institutions had not implemented the regulation because it was considered unnecessary despite the presence of the local government regulation and the mayor's decree. Moreover, there was no initiation to implement it because they felt it was unnecessary. The informants also stated that there were no instructions to post a smoking ban sign. This finding indicates that the community still did not understand the TFA regulation.

*"There is no implementation yet. The smoking area is also unnecessary. Most of this place is open, so we do not need it (TFA). There are no posters or stickers too (signs of smoking ban)...But if there is an order or an instruction to put up a no-smoking sign, we are ready for that."* (Informant 4, Government Office)

This study discovered that there were some violations, especially in educational places and government offices. This result was supported by the discovery of cigarette butts and ashtrays around the educational institution/school environment, the presence of employees who smoked, and the discovery of ashtrays in the school environment. The same things were also found in government offices. In almost all observed government offices, cigarette

butts were found inside the offices. The observation results showed that staff members who smoked inside the TFA were found in 31.43% of the places, visitors who smoked inside the TFA were found in 42.86% of the places, the smell of cigarette smoke was found inside the TFA in 51.43% of the places, cigarettes' buds were found inside the TFA (outside trashcans) in 80% of the places, and packs of cigarettes were found inside the TFA (outside trashcans) in 34.29% of the places.

Almost all informants stated that the implementation of the TFA regulation was influenced by the community awareness of the TFA regulation implementation. This finding was associated with bad supervisory roles of the leaders. Some informants even stated that there was no internal supervision in their institution, while ideally, the institution head was responsible for the supervision according to the TFA regulation.

*"There is none (internal supervision), and this institution does not enforce the regulation, but implementing it. (supervising) It is the duty of civil service police unit..."* (Informant 4, Government Office)

The implementation of the TFA regulation required the support of the leaders or the heads of the offices, but some of them gave wrong role models as they still smoked, even inside their rooms in the offices. Thus, the informants who saw the violations made by the leaders were afraid to comment on or remind them not to smoke in the offices.

*"Yes, that is one of the difficulties. They know they should be a good role model (for other staff members). I do not feel good when my boss smokes in the office, and I do not dare to remind them."* (Informant 5, Government Office)

## Knowledge

This study revealed that almost all key informants did not understand the TFA concept and the implementation of the TFA regulation in Semarang City. They only

understood that TFA is a place free from cigarette smoke. They did not know that the TFA regulation also prohibited any activities related to cigarette production, cigarette promotion and advertisement, cigarette sales, and smoking activities.

*"Tobacco- Free Areas according to my knowledge are areas free from cigarette smoke..."* (Informant 2, Educational Institution)

Furthermore, the interview results showed that many informants considered people should not smoke in air-conditioned office rooms (although some still smoked in air-conditioned rooms). While they still thought people were still able to smoke in non-air-conditioned (AC) rooms.

*"My office room is air-conditioned, and thus you need to go outside to smoke. Here (outside the informant's room but still inside the office) there is no AC so we can smoke here..."*(Informant 4, Government Office)

Most of the informants were aware of the TFA regulation, but some informants did not know about the regulation. The district health office and civil service police unit have promoted the regulation to many institutions and the community.

*"I do not understand. Maybe I heard about it...Frankly, we do not understand (about the TFA regulation)"* (Informant 3, Educational Institution)

Only a few informants could correctly name eight Tobacco-Free Areas determined in the TFA regulation. The head of the supervision team could not mention the eight TFA completely and correctly. Meanwhile, the informants from the civil service police unit and district health office could mention the eight TFAs correctly. The civil service police unit needed to be able to identify the TFA as it became the enforcer of the local government regulation, while the district health office was the driving force in the implementation of the TFA regulation.

*"...only at malls, at offices, that's it. Smoking at schools is not allowed already, and neither is in open places nor public places such as airports, stations, and ports too..."* (Informant 8, Supervisory Team)

Furthermore, this study also explored the informants' opinions regarding the TFA regulation. All informants, either smokers or not, agreed with the regulation. They were aware of the benefits of the regulation to protect the rights of others.

*"In my opinion, it is very good. Why? Because we want to protect passive smokers. After being investigated, active smokers can affect non-smokers too..."* (Informant 5, Government Agencies)

## Discussion

The Semarang City Local Government Regulation Number 3 of 2013 promulgated 8 (eight) Tobacco-Free Areas (TFA) in 2013. The promotion of this regulation has taken two years since 2015. However, some informants still could not understand and misinterpreted the TFA regulation in recent years. According to the Indonesian Ministry of Law and Human Rights, regulations need to be published in many ways, not only through direct promotion but also through printed media, electronic media, and others, to reach more audiences (Ministry of Law and Human Rights, 2010).

Informants' knowledge of the TFA regulation indicated several things. It suggested that the government provided insufficient assistance in the implementation of TFA regulations. The previous promotion of the regulation was only in the form of announcements that did not provide deep information about the TFA regulation and its implementation. Furthermore, inadequate awareness of informants and institutions also affected the success of the regulation implementation. Although smoking prohibition signs had been posted in some institutions, people still violated the regulation. Moreover, lack of supervision and law enforcement was



associated with the ineffective implementation of the regulation. Research conducted in Indonesia found that the implementation of TFA had to be supported by all parties, not only the government or society, but must also be committed by everyone (Azkha, 2013; Taruna, 2016; Yanthi, Sando and Hayana, 2021).

This study found some obstacles regarding the implementation of TFA regulation in Semarang City. There were predisposing factors such as low knowledge and lack of awareness that might hinder the implementation of TFA regulation. Research conducted in three schools in different cities found that knowledge and attitude correlated to the behavior of complying with the TFA regulation (Hutapea, Rumayar and Maramis, 2017; Sualang, Rumayar and Tucunan, 2019; Hariyanti, Hidayah and Sari, 2021)

Others that affected the implementation involved enabling factors such as lack of financial support and lack of facilities and infrastructure. According to Green, predisposing factors are internal factors that contribute to human behavior. These involved sociological factors, knowledge, attitude, belief, and others (Green and Kreuter, 2005). Some researchers in Indonesia found that enabling factors were correlated with the implementation of regulations. These factors included sufficient facilities, infrastructures, human resources, and budgeting (Dewi, Nuraini and Lionardo, 2018; Adhiguna, 2020; Fitria and Wibisono, 2020). Other researchers also found that resources supported the implementation of the TFA regulations. A study by Monica and Pambudi (2017) found that human resources, finance, and facilities were the driving factors in the implementation of TFA in Yogyakarta. The same result was also found in Khairatunnisa and Telaumbanua's study. It was stated that the lack of facilities, lack of infrastructure, and the absence of specific guidelines were correlated to the TFA implementation in one of Medan's high schools (Monica and Pambudi, 2017; Khairatunnisa and Telaumbanua, 2021).

Based on the informants' statements and observations, people still violated the TFA regulation, especially at government offices and educational places such as schools. Employees and visitors were more dominant in violating the TFA regulation at government offices, while in educational places, school employees and students were the ones who violated the rule. Based on the observation result, staff or employees were still found smoking in the TFA area, in the office, inside the building, and at the security post inside the fence (the TFA area). Forty percent of educational places or schools were identified with smoking employees and smell of cigarette smoke, and 60% of the schools were found to have cigarette butts within the TFA area. Furthermore, the observation result of the government offices found smoking employees in 50% of the offices. It was also found that cigarette butts were also found in the offices (83.3%). A study in Palembang, Indonesia, found that only 30.4% of employees in the government offices complied with the TFA regulation (Dewi, Nuraini and Lionardo, 2018). Other studies also found that the age at which a person started smoking for the first time was under 12 years old (Yang *et al.*, 2019; Husodo *et al.*, 2020). It indicated that teachers needed to educate their students about the dangers of smoking and the implementation of TFA at schools. However, this had to be done by providing full support to students through a social-psychological approach and giving good examples, such as avoiding smoking in front of students, done by teachers and the school employees.

At the institutional level, violations happened due to a lack of support from the head, a lack of supervision, a lack of employee awareness, regulation rejection, and a lack of financial support. According to Green, reinforcing factors, including leader support, contribute to human behavior (Green and Kreuter, 2005). Other studies found that support and commitment from all parties were necessary for the implementation of the TFA regulation (Iriani, 2019; Marchel, 2019; Handayani *et al.*, 2020).

## Conclusion

The implementation of Semarang City Local Government Regulation Number 3 of 2013 concerning Tobacco-Free Areas has not been carried out properly in all TFA areas. In fact, the Semarang Mayor's Decree No. 440/423/2015 concerning the Determination of TFA in Semarang, which regulates the focus of only three places of TFA, still contains violations, namely in educational places and government offices. Therefore, the government should amend the Semarang City Local Government Regulation Number 3 of 2013 to reinforce and strengthen the application of TFA in Semarang City. The amendment of the regulation should be promoted later on through several media to reach more audiences. Lastly, support from all parties, especially the government and heads of each of institutions, is necessary to properly perform the TFA regulation.

## Abbreviations

TFA: Tobacco-Free Areas; KTR: Kawasan Tanpa Rokok; Perda: Peraturan Daerah; AC: Air Conditioning; WHO: World Health Organization.

## Declarations

### Ethics Approval and Consent Participant

All informants in this study were given explanations about the research objectives and a statement of consent form with the right to withdraw from participation at any time. This study has obtained ethical clearance No. 217/EA/KEPK-FKM/2018 from the Faculty of Public Health, Diponegoro University.

### Conflict of Interest

The authors declare that there is no significant conflict of interest in this study.

### Availability of Data and Materials

Not applicable.

### Authors' Contribution

NH, BW, and KC conceptualized the study; NH and BW created the methodology; NH, BW, AA, and DK wrote, reviewed, and

edited the manuscript; NH wrote the original draft.

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