

A Comparative Analysis of Smoke-Free Compliance in Aceh

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ABSTRACT

Background: Aceh Province has a smoke-free area policy. At the district level, 22 of 23 have implemented the policy. However, the effectiveness has varied significantly. One aspect of concern is compliance with establishing indoor smoke-free environments. **Aims:** This study conducts a comparative analysis of the success of implementing smoke-free policies in Aceh. **Methods:** The effectiveness is calculated based on seven indoor compliances: signage, cigarette butt, smoking, ashtray, the smell of smoke, selling, as well as cigarette advertising/promotion/ sponsorship. The data utilized are from compliance surveys conducted by the Aceh Institute in 2022 and 2023. **Results:** The average signage compliance is 28.45 percent with Banda Aceh City having the highest compliance at 50,8 percent. Regarding compliance with no smoking activities, the average is 88.48 percent. However, the existence of cigarette butt is relatively high, with an average of 17,69 percent with Nagan Raya having the lowest rate. This study finds three main conditions related to the effectiveness of a smoke-free policy. First, the commitment of the government to disseminate, implement, and monitor the policy. More activities conducted by the government seem to increase compliance. Second, the collaboration between government and stakeholders. Collaboration is encouraged in the policy for more effective implementation. Third, resources to implement the policy. Adequate resources improve the implementation such as the signage coverage and policy enforcement. **Conclusion:** The compliance level of the smoke-free policy varies in each district in Aceh. Factors that influence it are commitment, collaboration, and availability of resources.

Keywords: compliance, policy, smoke-free areas.

INTRODUCTION

The smoke-free area (SFA) policy is crucial in protecting public health from the dangers of cigarette smoke, both for active and passive smokers. By implementing SFA in public places such as offices, schools, hospitals, and public transportation, the risk of chronic diseases such as heart disease, lung cancer, and respiratory problems can be reduced significantly. Apart from that, this policy also encourages smokers to reduce or stop smoking, as well as increasing public awareness about the dangers of smoking. In Indonesia, the obligation to establish SF Policy in the regions is ordered in on Government Regulation Number 109/2012.

Aceh Province, with its strong cultural and religious background, is committed to implementing the SFA policy in its territory. At the district level,

22 out of 23 have SFA policies, both regulated by regional law and the mayor/regent decree. However, the level of compliance with SFA policy varies. Some districts/cities may demonstrate high levels of compliance, while others still face various challenges in implementation. This difference in compliance means that the SFA has not been able to provide conditions under the expectations of these regulations. This condition has also become a public question as to why this difference occurs.

The compliance rate and its effectiveness as well as the barriers have been academic concern (Septiono et al., 2020). Studies of compliance are conducted in several regions in Indonesia. Di Bengkulu, low compliance is caused by low awareness, budget limitations and weak regional government coordination (Yunarman et al., 2020). In Jayapura, the low compliance of SF policy caused by

limited budget, lack of support from local non-government organizations and universities, lack of public awareness, and lack of leadership on SF policy (Wahyuti et al., 2019). Further political will is crucial to policy effectiveness (Kramer et al., 2023).

Although there have been several studies on SFA compliance in Indonesia, none have discussed it in the context of Aceh. Therefore, this research discusses the level of SFA compliance in Aceh by comparing several districts/cities.

METHODS

This study is exploratory research. The data utilized are from compliance surveys conducted by the Aceh Institute in 2022 and 2023. The policy review is conducted by analyzing the policy and the advocacy notes of Aceh Institute during its smoke-free advocacy 2019-2024 in Aceh Province. However, we only focus on three districts, namely Banda Aceh City, East Aceh Regency, and Nagan Raya Regency. The effectiveness is calculated based on seven indoor compliances: signage, cigarette butt, smoking, ashtray, the smell of smoke, selling, as well as cigarette advertising/promotion/sponsorship. The number of observations is different. In Banda Aceh is 250 venues, Nagan Raya 204 venues, and East Aceh Regency is 200 venues.



Graphic 1. The Surveyed Venues in Nagan Raya Regency



Graphic 2. The Surveyed Venues in East Aceh



Graphic 3. The Surveyed Venues in Banda Aceh City

Table 1. Information of Policy in Selected City/Regency

No	City/District	Regulation No. & Year	Type of policy	Year Adopted	Population	Level of SF Policy
1	Aceh Timur Regency	Regulation 33/2019	Regulation	2019	432.849	100% SF
2	Nagan Raya Regency	Law/Qanun 3/2015	Law	2015	173.393	100% SF
3	Banda Aceh City	Law 5/2016 and Regulation 46/2017	Law	2017	257.635	100% SF

Source: The UNION and Statistical Bureau of Indonesia, 2024

RESULTS AND DISCUSSION

The survey data of the Aceh Institute survey show that the average level of compliance with the presence of SF stickers or smoking prohibition stickers in the three districts is 28.45 percent. This rate is different from the average of impressions related to indoor smoking which is at the level of 11.52 percent and the smell of cigarettes which is at the level of 14.75.

Regarding the SFA Policy sticker and smoking ban, Banda Aceh City is ahead with a compliance rate of 50.80 percent. This achievement is very far compared to Nagan Raya which is only 22.06 percent and East Aceh 12.5 percent. The results of the Aceh Institute's (AI) advocacy report show that the success of Banda Aceh City in placing SF stickers is due to the assistance of stickers from the tobacco control advocacy program conducted by AI.

Furthermore, the stickers in Banda Aceh City is more well managed where each sticker has a record position, thereby increasing the effectiveness of the stickers and there is no repetition in sticking the stickers in the same places.

This study also found significant differences regarding indoor smoking activities. Most violations occurred in East Aceh regency with 18.00 percent, relatively high compared to Nagan Raya which is only 7.35 percent. Based on

policy advocacy notes from the Aceh Institute, the high level of indoor smoking occurs because the SFA policy has not been well socialized in East Aceh Regency. Apart from that, the absence of stickers means that people and even government officials still smoke indoors. This is different from Banda Aceh City, the existence of sanctions and SFA stickers makes people reluctant or do not dare to smoke indoors, especially in government office buildings.

Table 2. Smoke-Free Compliance Regarding the Sign, Smoking, and The Smell

Response	Nagan Raya		Aceh Timur		Banda Aceh	
	Number	%	Number	%	Number	%
<i>A smoking sign on the main door</i>						
Yes	45	22,06	25	12,5	127	50,80
No	159	77,94	175	87,5	123	49,20
Total	204	100,00	200	100,00	250	100,00
<i>People smoking in the building</i>						
Yes	15	7,35	36	18,00	23	9,20
No	189	92,65	164	82,00	227	90,80
Total	204	100,00	200	100,00	250	100,00
<i>Smell cigarettes in the building</i>						
Yes	2	0,98	2	1,00	5	2,00
No	202	99,02	198	99,00	245	98,00
Total	204	100,00	200	100,00	250	100,00

Source: Surveys of Aceh Institute, 2022-2023

Table 3. Smoke-Free Compliance Regarding the Sign, Smoking, and The Smell

Response	Nagan Raya		Aceh Timur		Banda Aceh	
	Number	%	Number	%	Number	%
<i>Cigarette butts in the building</i>						
Yes	14	6,86	46	23,00	58	23,2
No	190	93,14	154	77,00	192	76,8
Total	204	100,00	200	100,00	250	100,00
<i>Ashtrays or something similar in the building</i>						
Yes	14	6,86	31	15,50	18	7,20
No	190	93,14	169	84,50	232	92,80
Total	204	100,00	200	100,00	250	100,00
<i>Any items or goods with promotions/advertising/sponsorship from cigarette brands/companies in the building</i>						
Yes	2	0,98	9	4,50	5	2,00
No	202	99,02	191	95,50	245	98,00
Total	204	100,00	200	100,00	250	100,00
<i>Any activity selling cigarettes in the building</i>						
Yes	2	0,98	90	32,14	8	3,20
No	202	99,02	190	67,86	242	96,80
Total	204	100,00	280	100,00	250	100,00

Source: Surveys of Aceh Institute, 2022-2023

Even though the city of Banda Aceh is leading in stickers, but not regarding the presence of cigarette butts. Banda Aceh City only got a score of 76.80, still inferior to Nagan Raya which was 93.14. For indoor advertising/sponsorship compliance, the three regions have the same level, namely above 95 percent.

Based on the Aceh Institute's records, this happened because there were not many objects or posters promoting smoking indoors in these three areas. For indoors, most promotions come from the beverage and food industry, not from the cigarette industry.

Regarding indoor sales, the lowest level of compliance occurred in East Aceh, namely only 67.86 percent. This happens because many cafes or restaurants sell cigarettes indoors as a complement to their business. In contrast to the city of Banda Aceh, indoor cigarette sales are very low with a compliance level that has reached 96.80 percent.

The differences in the effectiveness of smoke-free policies in regencies/cities are due to differences in commitment to policy implementation. Commitment to government is crucial to SF policy (Kramer et al., 2023; Sufri et al., 2023). The Banda Aceh City has a higher commitment than the other two regencies. The Aceh Institute's policy advocacy records show higher commitment in Banda Aceh City, compared to other regions. One indicator is the presence of the mayor and high-level officials in activities related to SF policy.

The commitment is also proved by forming a smoke-free task force yearly to implement the policy. The existence of task force influences the effectiveness of SF policy (Trisnowati & Marlinawati, 2020). In the Banda Aceh City, every year an SF team is formed and provided with training regarding the policy. The team is also equipped with working documents and protocols for SF policy enforcement. This has not been found in East Aceh Regency.

The commitment to policy monitoring also looks better in Banda Aceh City. They have a monitoring system, either manual through direct visits or based on reporting using applications. Even though Nagan Raya also has the same instrument, its implementation is still not as good as Banda Aceh City.

The effectiveness of the SF policy also requires strong and broad collaboration with stakeholders, including the community (Suteerangkul et al., 2021). In a previous study, it was stated that the environment or group support greatly influences a person's level of compliance with the smoke-free policy (Wati, 2020). Community participation, both individually and in groups, is even encouraged in policy. In Banda Aceh City, a cigarette control alliance has been formed, consisting of organizations that are concerned about the issue. The

importance of community engagement is also emphasized by a previous study that states community participation programs for smoke-free may be effective in raising awareness (Suteerangkul et al., 2021)

Smoke-free stickers or no-smoking stickers are crucial in realizing smoke-free policies in local governments (Noviafni & Khaidir, 2019; Rokhmah, 2023). The number of stickers equally distributed will be directly correlated to the achievement of compliance. However, not all regions have adequate distribution of SF stickers. One factor is budget. In the city of Banda Aceh, with a larger budget compared to Nagan Raya and East Aceh, it is very possible to print stickers. However, fulfilling stickers is not always due to budget. Awareness of the importance of stickers also varies between governments, in some cases, SF sticker is considered unimportant.

Compliance with indoor smoking bans is also related to the sanctions imposed (Wahyuti et al., 2020). For example, in the city of Banda Aceh, sanctions against government employees who are caught smoking indoors include cutting performance allowances, and this has been implemented. Apart from that, there must be no exceptions to SF policy enforcement, it must be comprehensive. Strict enforcement will also have a significant impact on compliance.

Public awareness of SF policy greatly influences compliance (Bafunno et al., 2020; Fajrin, 2019; Primasari & Listina, 2022). If the socialization of the policy is deemed insufficient, it will be difficult to achieve a level of compliance with the policy. This can be seen in East Aceh and Nagan Raya regency where socialization and educational activities related to SF policy are still very few compared to Banda Aceh City. Moreover, if the public already has high knowledge and awareness, they will support the policy of banning smoking, not only indoors but also outdoors to ensure public health (Hock et al., 2019).

To ensure the implementation of the SF policy, budget availability is very crucial. Without a budget, local governments cannot supervise and enforce SF policy. Based on Aceh Institute records, the Banda Aceh city government has a better budget pattern than East Aceh and Nagan Raya in terms of smoke-free activities. Apart from that, the

assistance from the Aceh Institute allows regions to carry out more implementation activities.

CONCLUSION

The average compliance with the presence of SF stickers in the three districts is 28.45 percent. This rate is different from the average of impressions related to indoor smoking which is at the level of 11.52 percent and the smell of cigarettes which is at the level of 14.75.

The average signage compliance is 28.45 percent with Banda Aceh City having the highest compliance at 50,8 percent. Regarding compliance with no smoking activities, the average is 88.48 percent. However, the existence of cigarette butt is relatively high, with average 17,69 percent with Nagan Raya has the lowest rate.

Three main conditions related to the effectiveness of smoke-free policy. First, the commitment of the government to disseminate, implement, and monitor the policy. More activities conducted by the government seem to increase compliance. Second, the collaboration between government and stakeholders. Collaboration is encouraged in the policy for more effective implementation. Third, resources to implement the policy. Adequate resources improve the implementation such as the signage coverage and policy enforcement.

Even though this study only analyses three regencies/cities, at least it was able to identify three main factors that the government should pay attention to to increase indoor compliance with SFA policy, namely strong commitment, broad collaboration, and sufficient resources. For further studies, we recommend more regencies/cities included to have more robust conclusions.

REFERENCES

- Bafunno, D., Catino, A., Lamorgese, V., Del Bene, G., Longo, V., Montrone, M., Pesola, F., Pizzutilo, P., Cassiano, S., Mastrandrea, A., Ricci, D., Petrillo, P., Varesano, N., Zacheo, A., & Galetta, D. (2020). Impact of tobacco control interventions on smoking initiation, cessation, and prevalence: A systematic review. *Journal of Thoracic Disease*, 12(7), 3844-3856.
- Fajrin, R. F. (2019). Faktor Kepatuhan Pekerja Pada Kawasan Tanpa Rokok (Ktr) Di Pt. Pal Indonesia (Persero). *Jurnal PROMKES*, 7(1), 12. <https://doi.org/10.20473/jpk.v7.i1.2019.12-21>
- Hock, L. K., Hui Li, L., Chien Huey, T., Yuvanewary, V., Sayan, P., Muhd Yusoff, M. F., Kuang Kuay, L., Miaw Yn, L., Kee Chee, C., & Sumarni Mohd, G. (2019). Support for smoke-free policy among Malaysian adults: Findings from a population-based study. *BMJ Open*, 9(2), 7-11. <https://doi.org/10.1136/bmjopen-2017-020304>
- Kramer, E., Ahsan, A., & Rees, V. W. (2023). Policy incoherence and tobacco control in Indonesia: An analysis of the national tobacco-related policy mix. *Tobacco Control*, 32(4), 410-417. <https://doi.org/10.1136/tobaccocontrol-2021-056633>
- Noviafni, F. B., & Khaidir, A. (2019). Implementasi Peraturan no. 24 Tahun 2012 tentang Kawasan Tanpa Rokok dalam Upaya Penciptaan Kota Padang sebagai Kota Layak Anak. *Ranah Research: Journal of Multiclsinary Research and Development*, 1(3), 453-463. <https://jurnal.ranahresearch.com/index.php/R2J/article/view/77>
- Primasari, S. I., & Listina, F. (2022). Faktor Faktor Yang Berhubungan dengan Kepatuhan Dalam Penerapan Kawasan Tanpa Rokok Di Lingkungan Puskesmas Candipuro Kabupaten Lampung Selatan. *Jurnal Ilmu Kesehatan Indonesia (JIKSI)*, 2(2), 87-97. <https://doi.org/10.57084/jiksi.v2i2.737>
- Rokhmah, D. (2023). Santri Smoking Behavior Determinant At "X" Islamic Boarding School in Jember Regency. *Jurnal Promkes*, 11(1), 1-10. <https://doi.org/10.20473/jpk.v11.i1.2023.1-10>
- Septiono, W., Kuipers, M. A. G., Ng, N., & Kunst, A. E. (2020). Changes in adolescent smoking with implementation of local smoke-free policies in Indonesia: Quasi-experimental repeat cross-sectional analysis of national surveys of 2007 and 2013. *Drug and Alcohol*

- Dependence*, 209(October 2019), 107954.
<https://doi.org/10.1016/j.drugalcdep.2020.107954>
- Sufri, S., Nurhasanah, N., Ahsan, A., Saputra, I., Jannah, M., Yeni, C. M., Mardhiah, A., Bakri, S., & Usman, S. (2023). Barriers and opportunities for improving smoke-free area implementation in Banda Aceh city, Indonesia: a qualitative study. *BMJ Open*, 13(12), 1-13.
<https://doi.org/10.1136/bmjopen-2023-072312>
- Suteerangkul, P., Lagaman, S., Kalampakorn, S., & Auemaneekul, N. (2021). The effects of community participation program on smokefree homes in a suburban community of Thailand. *Tobacco Induced Diseases*, 19, 1-8.
<https://doi.org/10.18332/TID/133876>
- Trisnowati, H., & Marlinawati, U. (2020). Monitoring of compliance with regulations on no-smoking areas in school environments in Yogyakarta. *Disease Prevention and Public Health Journal*, 14(1), 6.
- Wahyuti, Salman, D., Bastiana, Agustang, A., Arwan, & Yani, A. (2020). Why do people fail to comply with the smoking ban in public places? (the case of jayapura city, indonesia). *Systematic Reviews in Pharmacy*, 11(10), 732-736.
<https://doi.org/10.31838/srp.2020.10.109>
- Wahyuti, W., Hasairin, S., Mamoribo, S., Ahsan, A., & Kusuma, D. (2019). Monitoring Compliance and Examining Challenges of a Smoke-free Policy in Jayapura, Indonesia. *Journal of Preventive Medicine and Public Health = Yebang Uihakhoe Chi*, 52(6), 427-432.
<https://doi.org/10.3961/jpmph.19.240>
- Wati, M. D. M. (2020). Analysis of Compliance with Non-Smoking Area Regulations in Foster Care of Regional Technical Implementation Unit of Kampung Anak Negeri. *Jurnal PROMKES*, 8(1), 99.
<https://doi.org/10.20473/jpk.v8.i1.2020.99-110>
- Yunarman, S., Zarkani, A., Walid, A., Ahsan, A., & Kusuma, D. (2020). Compliance with smoke-free policy and challenges in implementation: Evidence from bengkulu, Indonesia. *Asian Pacific Journal of Cancer Prevention*, 21(9), 2647-2651.
<https://doi.org/10.31557/APJCP.2020.21.9.2647>