



# Application of Non-Smoking Areas in Hospitals: A Literature Review

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## ABSTRACT

**Background:** In various countries, the problem of smoking is now considered because of the effects, which can lead to addiction and potentially harm health. Public health authorities have concluded that one solution that can be done to protect the public from active smokers is to issue a policy that requires public facilities to be completely smoke-free. The hospital is one of the public facilities that has been designated as a smoke-free area. However, the implementation and maintenance of a successful program based on a smoke-free hospital are still considered an ongoing challenge worldwide due to the deficient level of adherence. The low level of compliance with this smoke-free policy is also seen in other public facilities. The purpose of the literature review is to review the status of the application of the non-Smoking Area policy, how this policy has succeeded in reducing smoking activity in hospitals, and what factors lead to such compliance in each country in the world. **Methods:** A literature review was conducted on all qualitative and quantitative research methods. The sample is all subject/resident locations, including discutiens, staff and hospital visitors.

**Results:** Various variations in the level of compliance were found in the investees' literature, and the literature with the highest level of compliance is 88.4%. Furthermore, several determinants are known to affect the comp submission. Non-Smoking Area hospital policy includes communication, information, knowledge, perceptions, interventions, attitudes and support. Obstacles to its enforcement are the absence of sanctions against violators of the Non-Smoking Area policy, the ineffectiveness of the function of policymakers in hospitals, and the negative perception of smoking-related mental health.

**Conclusion:** Violations of the Non-Smoking Area policy are often committed by the hospital staff, making it difficult for this policy to be fully enforced at various points in the hospital.

**Keywords:** Implementation, Health Policy, Non-Smoking Area, Hospital

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## Background

Smoking has become a severe problem in many countries worldwide, causing addiction and harm to health. Most teens in any part of the world are familiar with cigarettes, both adults and teenagers, and even children have started smoking as their habit. It has become a common familiar if we pass by and see people smoking (Seriusman H Sitanggang, 2017).

The number of smokers worldwide has significantly increased as the population grew from 1990 to 2019, from approximately 990 million to 1.1 billion. In 2019, the standard of smoking rate in all ages is 32.7% for men and 6.62% for women compared to 1990 globally, an estimated 155 million smokers aged between 15-24 years equivalent to 20.1% for young men and 5% for young women (The Lancet 2020).

Cigarettes have become the leading cause of death worldwide, threatening billions of men, women and children in this century. Millions of people suffer from bad health conditions from smoking, and researchers estimate that each year about 8 million premature deaths are caused by smoking (Hannah Ritchie and Max Rose, 2021). More than 7 million of these deaths are active smokers, while around 1.2 million are those exposed to cigarette smoke. The report states that smoking accounted for 7.69 million deaths in 2019.

Cigarettes also impact economic damage WHO mentions, that every year economic damage is around \$1 trillion. All healthcare expenditures due to smoking-related illnesses reached \$467 billion in 2012 or 5.7% of global health expenses. Total expenditure economic expenses from health expenses and lost productivity were \$1852 billion in 2012, even in total to 1.8% of the world's annual Gross Domestic Product (GDP). Nearly 40% of these costs are substantial burdens in developing countries.

Public health authorities have concluded that one solution to protect the public from active smokers is to oblige public facilities to be completely smoke-free. Several countries

have issued policies regarding the prohibition of smoking in public facilities.

Hospitals have become one of the public facilities designated as smoke-free areas. Hospitals hold an essential key role in campaigning ways to quit smoking. Hospitals should also set an example in controlling tobacco consumption and enforcing compliance with no-smoking policies. The level of compliance with the procedure depends on the hospital and the central and local governments on their implementation. Nevertheless, implementing and maintaining a successful program based on a smoke-free hospital is considered an ongoing challenge worldwide. The implementation of policy is one of the critical stages in the public policy process. A program or policy must have simple procedures, procedures, and goals.

Not only visitors but also staff, information, authority and facilities as the resources in health facilities are also indicators of the effectiveness of The Non-Smoking Area implementation in hospitals. Resources are an important factor in the performance of effective policies. One of the said resources is human resources. The implementation of the policy will not succeed without the support from human resources. In hospitals, staff as human resources are expected to be the model's pet other her other or those who are in the vital area to obey the Non-Smoking Area. However, on its implementation, the staffs themselves violate the Non-Smoking Area.

Based on this issue, knowing how to implement health policies in hospitals is essential. The study will be analysed through a literature review.

## Method

The journals used in the literature review are obtained from the database of international journal providers ScienceDirect, PubMed Central, The Lancet, and the Scientific Indonesia journal through Google Scholar. At the beginning of the search for journal articles, 28,172 articles were found, and then they were narrowed down by looking at the variables studied in the report. Of these, only

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14pieces are considered relevant because they have full criteria and are high quality. The researcher uses all research designs to identify the implementation of hospital policies.

## Results

### Compliance

Exposure to cigarette smoke causes diseases and premature death among passive smokers. No one is free from the risk of secondhand smoke, and even a short exposure can cause immediate harm. Creating a 100% smoke-free environment is the only effective way to protect non-smokers completely from active smokers (CDC 2021).

The hospital is a public facility that must implement The Non-Smoking Area in its environment. The compliance of smokers not to smoke in the hospital area is one indicator of the successful implementation of the Non-Smoking Areapolicy. The non-compliance shown can help enforce the authority to closely monitor the performance of the Non-Smoking Areapolicy in hospitals as an evaluation material for hospitals in monitoring the implementation of the Non-Smoking Areapolicy. The research conducted by

(McCrabb et al. 2017) in two hospitals in New South Wales (NSW), Australia, showed low adherence, which was only 60.9% both from patients and from starstuff the hospital's health personnel.

Canteens, offices, corridors, stairs, inpatient waiting rooms, restrooms and the outdoor environment are the most common places for smoking even though the Non-Smoking Areapolicy has been issued. Some articles even focus more on the environment outside the building or hospital grounds. Because smokers have the perceperceiveing ban only applies inside the hospital building, they smoke outside the building, such as in the hospital yard. Many visitors violate policies on the hospital grounds,especially at the hospital entrance (Shopik et al. 2012) for patients' and outpatients' carriers. A corridor is also a place where smoking activities are found by the patient guards and the patients themselves. (McCrabb et al., 2017) . Table 1 below sh,ows the level of compliance and the location where smoking activity is most commonly found after the implementation of the Non-Smoking Areapolicy in hospitals from various literature.

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**Table 1. Coliteraturevel and Location of smoking activity after the implementation of the Non-Smoking Area policy in the hospital**

<i>Literature</i>	Compliance (%)	Location in hospital
Movsisyan et al.	71.9	Canteens, offices, corridors, stairs, patient waiting rooms, restrooms and outside the building.
Poder et al.	61	Emergency room door, Gazebo, vehicle parking lot, the main door of the building, cafe, patient room.
Hale et al.	74	Yard and parking lot.
An et al.	79.9	Lobby, canteen, waiting room, and office
McCrabb et al.	60.9	Yard
Shop et al.	72.5	The yard and outside of the main building
Sureda et al.	55	yard, hall, emergency room, waiting room, pharmacy, canteen, changing room, fire evacuation route, entrance and outside of the building.
Stockings et al.	16.5	Yard and in the building.
Giles and Bauer	88.4	yard



Serafin et al.	86	Entrance and yard
Zadie	89,7	Entrance, reception area, patient waiting room, patient rooms, doctor room, nurse's room, outpatient department, elevator, Corridors, toilets, cafes and administrative offices.
Martinez et al.	70	Yard
Martin et al.	56.3	Yard
Crosby et al.	75	yard and Entrance

### Determinant

Several determinants were found of compliance with the Non-Smoking Area policy in hospitals from several kinds of literature as follows:

#### 1) Communication

The hospital managers have communicated directly to staff regarding the Non-Smoking Area policy as a form of strategy for applying the Non-Smoking Area policy shortly after the release of the Non-Smoking Area policy. High compliance was found after the first four months after policy implementation, and the observation was mainly by hospital staff. They have managed smoking activities in the workplace.

#### 2) Information

Based on the research by Tadesse and Zawdie (2019), even 97% of the hospital area did not find anti-smoking signs set as warning signs. Information about the Non-Smoking Area policy has become one of the compliance factors as well as an intervention in the Non-Smoking Area policy in hospitals. Furthermore, Campaigns counselling about the benefits of having a smoke-free hospital by providing information in the form of policy signs for a smoke-free hospital, tobacco control laws and their sanctions, the dangers of smoking, and direct warnings by hospital nurses to smokers found smoking in the hospital.

#### 3) Knowledge/ awareness

In Tadesse and Zawdie's article (2019), it is stated that 69.4% of smokers who do not comply with the policy have less knowledge, and 30.6% possessing sufficient knowledge about smoking, continue to smoke even in the

hospital. The level of awareness of the dangers of smoking to oneself and others is the next factor in the Non-Smoking Area policy compliance. Many smokers do not know the risks of smoking, so they smoke. Furthermore, some smokers have little knowledge about the dangers of smoking but will carry out smoking activities.

#### 4) Attitude

A positive attitude toward the Non-Smoking Area policy helps compliance with the Non-Smoking Area policy. A positive attitude about awareness not to smoke is the main point in which the understanding of smoking activity can harm yourself and others. The philosophy of being aware of smoking activities violates the right of passive smokers to healthy air. However, a reference states that patients have shown low patient attitudes as support for policies, especially among smokers. Tadesse and Zawdie's research (2019) shows that the unfavourable attitude factor has an AOR value of 6.15, which is greater than the lack of knowledge about cigarettes which is AOR = 2.71 (Tadesse and Zawdie 2019).

#### 5) Perception

Perceptions about the Non-Smoking Area policy in reducing exposure to cigarette smoke in hospitals must continue to be enforced. Perception is used as a spirit in enforcing the Non-Smoking Area policy in the hospital. Without this perception, interest in complying with the Non-Smoking Area policy will also disappear (An et al., 2015). Positive perceptions are also expected to come from patients and hospital visitors. Approximately 45.9% of patients positively view the smoking-



free policy in the hospital as encouragement in enforcing The Non-Smoking Area policy compliance (Stockings et al. 2015).

#### 6) Intervention

Intervention is also essential as a form of The Non-Smoking Area policy implementation. The frequency of the intervention given is a high compliance factor. Based on the research of Poder et al. (2012), the hospital took action to remove all chairs and ashtrays in areas frequently visited by patients, patient guards, visitors and staff to smoke. After the move, the level of compliance increased with the Non-Smoking Area policy. The introduction of the Quit Smoking Club has also helped improve policy compliance. In the article (Movsisyan et al. 2014), hospitals are given interventions such as:

1. A campaign on smoke-free hospitals by providing information in the form of policy signs for a smoke-free hospital, tobacco control laws and their sanctions, the dangers of smoking, and direct warnings by hospital nurses to smokers found smoking in the hospital.
2. Creating a "non-smoking" environment by removing all ashtrays from the hospital and replacing them with trashcans with no smoking signs.
3. Building institutions to maintain Non-Smoking Area compliance in the hospital environment. We are training on the dangers of smoking, carrying out interventions, giving basic counselling approaches, and explaining the importance of a smoke-free hospital.

#### 7) Support

Support is required from staff and the societies in enforcing The Non-Smoking Area in hospitals. The license in the form of a warning to smokers is carried out for the enforcement of The Non-Smoking Area. However, the reality is that the staff, who are the policy implementers, do not dare to take such actions. In the article by Stockings et al. (2015), only half of the staff supported the policy, which was 53.6%, resulting in poor compliance, which was 83.5% of people who smoked in the hospital, especially in inpatient psychiatric facilities.

#### Obstacle

Obstacles in enforcing compliance are essential things to consider for evaluation materials. One of the obstacles is assigning tasks to implementers. Some staff as implementers feel that enforcing The Non-Smoking Area compliance is beyond their responsibility, mainly because there is no particular incentive to run these additional tasks. Unfortunately, those who have a negative attitude about participating in smoking activities are the hospital staffs who know the dangers of smoking and are the implementers of the policy in the hospital. One of the reasons for the low compliance of the team is the staff's reluctance to reprimand smokers for not smoking in the hospital environment, including in the yard. Staff are worried about getting a response from smokers when criticised because smokers respond negatively when condemned.

The obstacles, such as the enforcement of sanctions, are also found in Giles and Bauer's (2020) article, where some policy violators cannot pay the fines that have been set. However, looking at the case from another perspective, the penalty should provide a deterrent effect so that people do not smoke in the Non-Smoking Area anymore, and compliance will increase with the Non-Smoking Area policy. In the whole literature, it is barely stated that no sanctions have been given to violators of the Non-Smoking Area policy.

The next obstacle is the perception in society that smoking will help relieve stress. Being in an unusual situation in a hospital, seeing many sick people, and being in one place for days cause anxiety to patients and visitors, so they assume smoking is a way to relieve stress. Consistent implementation of the Non-Smoking Area policy also contributes to higher Non-Smoking Area policy compliance.

#### Conclusion

Compliance with the Non-Smoking Area policy still has a low level knowing the hospital should be a role model for other public facilities in the implementation of The Non-Smoking Area so that a 100% smoke-free environment is getting farther and farther to be realised. Locations in smoking activities are mostly committed outside the building or hospital yard. These points are considered the



areas that are not regulated in the Non-Smoking Area policy. There are also many smokers among the staff themselves, both health workers and non-health workers, such as visitors who accompany patients to come for treatment or to visit inpatients, and patients who are being hospitalised also smoke.

Negative attitude determinants represent the determinants that most influence compliance with The Non-Smoking Area policies against lack of knowledge. The negative attitude is in the form of a lack of awareness not to smoke in hospitals even though they already know that the hospital area is a Non-Smoking Area.

The biggest obstacle is undoubtedly related to sanctions. The sanctions are not strictly enforced in the application of The Non-Smoking Area. Violators are not given sanctions that provide a deterrent effect for not smoking in the hospital area. Furthermore, the apathy of the staff is also an obstacle to its implementation; the team is reluctant to reprimand the violators because they think that this is an additional task that does not have intensive. Further research is expected to be more specific to the determinants and obstacles.

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